2004 PCI Design Awards Program
The Winning Entries

On May 21, 2004, at the Chicago Marriott Hotel, Chicago, Illinois, three jury panels judged 90 entries for the 2004 PCI Design Awards Program. Singled out for recognition were 17 structures comprising eight buildings and nine bridges.

This program recognizes design excellence in the use of precast, prestressed concrete and/or architectural precast concrete. The annual program is open to all registered architects and engineers practicing professionally or in government agencies in North America. The winning structures were completed within the past three years and constructed in the United States, Canada or Mexico. Winners were chosen on the basis of exceptional achievement in aesthetic expression, function and economy, and ingenuity in the use of materials, methods and equipment.

This year, two projects received the Harry H. Edwards Industry Advancement Award, which honors "those ideas and concepts that hold the potential to move the industry to the next generation of technology."

Awardees received special recognition at PCI's 50th Anniversary Annual Convention & Exhibition in Atlanta, Georgia, during the Design Awards Luncheon on Wednesday, October 20. Winning entries will also receive national publicity through major industry and architectural publications. Extensive descriptions of the winning projects appear in the Fall 2004 issue of ASCENT MAGAZINE. PCI traditionally gives all winning projects equal recognition to acknowledge the diversity of design solutions employed by architects and engineers. The PCI JOURNAL has featured articles about several winning entries and will present more articles in upcoming issues.

The credits and jury comments for the winning projects are given on the following pages. PCI extends its congratulations to all those involved with these projects and its gratitude to each member of the 2004 Awards Jury.

BUILDINGS JURY

Paul Todd
Director of Architectural Design
Barber Architecture
Denver, Colorado

Bonnie Maples
President, Royal Architectural Institute of Canada
and President, Stantec Architecture
Vancouver, British Columbia, Canada

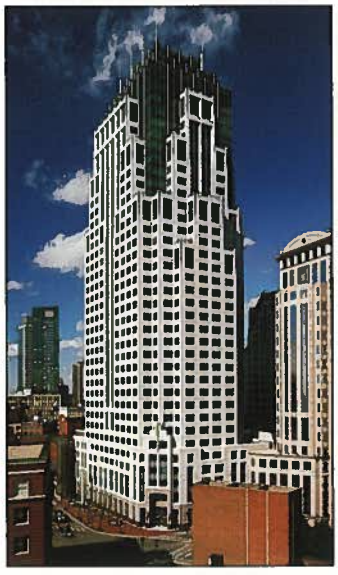
Debra Rubin
Senior Managing Editor
Engineering News-Record
New York, New York

Pictured clockwise are: R. K. Stewart, Paul Todd, Bonnie Maples, Debra Rubin, and Gordon Wright.

Chairman
R. K. Stewart, AIA
Vice President
Gensler
San Francisco, California

Gordon Wright
Executive Editor
Building Design & Construction
Oak Brook, Illinois

Building Award Winners



Winner
Best Office Building
State Street Financial Center
Boston, Massachusetts
Entrant Firm:
Jung/Brannen Associates, Inc.
Boston, Massachusetts
Engineer:
Weidlinger Associates, Inc.
Cambridge, Massachusetts
Owner:
Kingston Bedford Joint Venture, LLC
Boston, Massachusetts
General Contractor:
Skanska USA Building, Inc.
Boston, Massachusetts
Precaster:
Coreslab Structures (Conn.) Inc.
Thomaston, Connecticut

Jury Comments:

"As a response to a highly articulated urban environment, this project succeeds because it adapts to meet the sky and the ground. The way the panels are organized and assembled as a single piece is very well executed. The building is well detailed and beautifully proportioned in an urban environment, serving as a transition between two neighborhoods of different character."

Winner
Best Custom Solution
Prince of Peace Catholic Church
Taylors, South Carolina
Entrant Firm:
Craig Gaulden Davis
Greenville, South Carolina
Engineer:
Cary Engineering Consultants
Greenville, South Carolina
Owner:
Diocese of Charleston
Taylors, South Carolina
General Contractor:
Morris Construction Co., Inc.
Greenville, South Carolina
Precaster:
Metromont Prestress Company
Greenville, South Carolina

Jury Comments:

"Drawing on the precast concrete walls for its primary inspiration, this design creates a tremendous space for worship and integrates well on its existing campus to the other church elements. It is a tremendous tour de force in the use of those precast elements in the walls. The precast concrete also transitions between the interior and the exterior and is used well both inside and outside."

Winner
Best Justice Facility/ Courthouse
Michael D. Antonovich Antelope Valley Courthouse
Lancaster, California
Entrant Firm
Mosakowski-Lindsey Associates
Pasadena, California
Engineer
Martin Huang International
Pasadena, California
Owner
County of Los Angeles
Los Angeles, California
General Contractor:
The Haskell Company
Jacksonville, Florida
Precaster:
Clark Pacific
Fontana, California

Jury Comments:

"Designers achieved great subtlety in the reproduction of a real material, sandstone, by carefully applying various dyes to the panels of the form, bringing a new subtlety to precast wall panels. In terms of integrating a hostile desert environment, it creates an oasis within the landscape. As a place-making gesture, it's a tremendous project. Of particular note is the 'engineered randomness.' The panels were beautifully random in their finish material."

Winner

Best Multifamily Building

University Village New Mid-Rise Condominiums

Chicago, Illinois

Entrant Firm
Fitzgerald Associates Architects
Chicago, Illinois
Engineer:
Matrix Engineering
Chicago, Illinois
Owner:
South Campus Development Team
Chicago, Illinois
General Contractor:
Linn Mathis
Chicago, Illinois
Precaster:
Spancrete Industries
Waukesha, Wisconsin

Jury Comments:

"This important residential project in an urban environment harkens to the traditional composition of a tall structure that works its way into its landscape. Especially well done are the proportions of the base and the integration of the precast elements with brick sills and headers and corner slides, as well as the use of the thin-brick insets. It blends new and old and offers a nice addition to the landscape."

Co-Winner

Best Parking Structure

Humphrey Ground Transportation Center

Minneapolis, Minnesota

Entrant Firm:
Miller Dunwiddie Architects
Minneapolis, Minnesota
Engineer:
SRF Consulting Group
Minneapolis, Minnesota
Owner:
Metropolitan Airports Commission
Minneapolis, Minnesota
Construction Manager:
Kraus Anderson Construction Co.
Minneapolis, Minnesota
General Contractor:
Knutson Construction Services
Minneapolis, Minnesota
Precaster:
Enterprise Precast Concrete Inc.
Omaha, Nebraska

Jury Comments:

"This project offers a surprisingly honest articulation of the precast concrete façade. The designers did not resort to any other materials to try to disguise it. They did a great job of integrating within the context and helping it pull the neighborhoods together. A lot of work and effort went into designing this structure to ensure it did not look like a parking structure from a distance."

Co-Winner

Best Parking Structure

City of Orlando/Orange County Courthouse Parking Structure Expansion

Orlando, Florida

Entrant Firm:
Burke, Hogue & Mills Associates, Inc.
Lake Mary, Florida
Engineer:
Rich and Associates, Inc.
Lutz, Florida
Owner:
City of Orlando
Orlando, Florida
General Contractor:
Jack Jennings & Sons
Orlando, Florida
Precaster:
Gate Precast Company
Kissimmee, Florida

Jury Comments:

"As with the other parking structure winner, this project offers fine detailing that nicely transitions between elements. The projects take different approaches to their challenges, but both resolve themselves very well. This is a tight, well accomplished project."

BRIDGE JURY

Chairman
M. Myint Lwin
Director of the Office of Bridge Technology
Federal Highway Administration
Infrastructure CBU (HIBT-1)
Washington, D.C.

Paul V. Liles Jr.
State Bridge Engineer
Georgia Department
of Transportation
Atlanta, Georgia

Reid W. Castrodale
Senior Engineer
Ralph Whitehead Associates
Charlotte, North Carolina

Bridge Award Winners

Winner
Best Non-Highway Bridge
Padden Parkway Pedestrian Bridge
Vancouver, Washington

Entrant Firm:
OBEC Consulting Engineers
Eugene, Oregon
Engineer:
OBEC Consulting Engineers
Eugene, Oregon
Owner: Clark County, Washington
Department of Public Works
Vancouver, Washington
General Contractor:
Cascade Bridge
Vancouver, Washington
Precaster:
Concrete Technology Corp.
Tacoma, Washington

Jury Comments:

"This is an interesting project that uses very long span prestressed beams to provide a pedestrian crossing over a busy interstate highway. Using long spans reduced the exposure to the traffic below and provides a simple, slender solution for this pedestrian overpass. This is an excellent example of how high strength concrete can be utilized to extend the span ranges of prestressed concrete to unheard of lengths. This project also demonstrated fast construction at a very reasonable cost."

Winner
Best Rehabilitated Bridge
Castlewood Canyon Arch
Franktown, Colorado

Entrant Firm, Engineer, Owner:
Colorado Department of
Transportation
Denver, Colorado
General Contractor:
Kiewit Western
Littleton, Colorado
Precaster:
Plum Creek Structures
Littleton, Colorado

Jury Comments:

"We think that this is a very innovative solution that uses precast concrete in a number of ways to renovate a very old concrete arch bridge. Precast concrete was used for the columns, spandrel beams and deck beams in a cost-effective manner. There are many historic concrete arch bridges in service that need rehabilitation. This project demonstrates a means to preserve both bridges. The construction period was very fast – being accomplished from June to October, which is impressive for such a complex project. The project demonstrates the effective use of composite materials to strengthen old structures. But, combined with replacing original cast-in-place concrete sections with precast concrete shows the intelligent use of materials to speed construction while reducing costs."

Winner
Best Bridge with Span less than 65 feet
Tarkiln Rd. Bridge over the Tarkiln River
Harrisville, Rhode Island

Entrant Firm:
CME Associates, Inc.
Woodstock, Connecticut
Engineer:
CON/SPAN Bridge Systems
Clifton Park, New York
Owner:
Town of Burrillville
Burrillville, Rhode Island
Precaster:
Concrete Systems, Inc.
Hudson, New Hampshire

Jury Comments:

"This is a simple solution to a common problem. It is easy to do and is within the ability of the local agency to use their own forces to accomplish the task at hand of building a simple bridge. It looks nice in the setting and can be done quickly. We were impressed with the quick design and construction, rapid response to a need that came up, and they were able to move quickly, deal with the situation, take care of it, and have a new crossing in place in short order. The focus on the speed and the ability of the local agency to handle it all – was important. The precast elements are nonproprietary. This is essentially a total precast bridge with very little field placed concrete. This had a lot to do with the local agency's ability to do the work themselves."

Winner

Best Owner Designed Bridge

Cooks Chasm Bridge

Yachats, Oregon

Entrant Firm:
Oregon Department of Transportation
Corvallis, Oregon
Engineer:
Guido Portier
Salem, Oregon
Owner:
Oregon Department of Transportation
Corvallis, Oregon
General Contractor:
F.E. Ward, Constructors
Vancouver, Washington
Precaster:
Morse Bros. Inc., Prestress
Harrisburg, Oregon

Jury Comments:

"This is a particularly impressive project for an owner-designed bridge. It utilizes concrete in a unique way to make the structure work. It provides an aesthetically pleasing solution and exhibits good attention to detail – it fits well on the site. We were very impressed with the segmental arch and the use of the precast concrete to build it and the columns. It is a beautifully-sited bridge – a perfect solution in this setting. The clever use of the arch to avoid the spray from the spouting horn helps to eliminate one of the problems incurred with the previous structure. In addition, the use of high quality, dense, high strength, high performance concrete will help ensure even longer life for this new structure."

Co-Winner

Best Bridge with Spans between 65 and 135 feet

Fifth Street Bridge Over the Great Miami River

Dayton, Ohio

Entrant Firm:
Burgess & Niple, Inc.
Columbus, Ohio
Engineer:
Burgess & Niple, Inc.
Columbus, Ohio
Owner:
Ohio Department of Transportation
Columbus, Ohio
General Contractor:
Kokosing Construction Company, Inc.
Columbus, Ohio
Precaster:
Prestress Services, Inc.
Lexington, Kentucky

Jury Comments:

"We think this bridge represents an interesting concept. It is very attractive in its river setting. This bridge uses haunched fascia beams that are cast in two segments to minimize their hauling and setting size. They are post-tensioned together in the field using a keystone architectural element at the center. The remainder of the interior beams is typical girders and is not readily visible. The concept gives an appearance of an arch that satisfies the desires of the community while providing a very economical solution."

Co-Winner

Best Bridge with Span greater than 135 feet

Old 99 (Riverside) Bridge

Mount Vernon, Washington

Entrant Firm:
MACTEC Engineering and Consulting, Inc.
Bellevue, Washington
Engineer:
MACTEC Engineering and Consulting, Inc.
Bellevue, Washington
Owner:
City of Mount Vernon
Mount Vernon, Washington
General Contractor:
Kiewit Pacific Co.
Vancouver, Washington
Precaster:
Concrete Technology Corp.
Tacoma, Washington

Jury Comments:

"We think this type of bridge will be used more and more often in the future. It uses girder segments spliced together at the job site to eliminate transportation and site constraints. Assembling the girders near the site and erecting them in one piece eliminates falsework problems. This technique enabled 180-ft spans; it also helps get piers out of the way, which in this particular Northwestern environment, were a problem in collecting debris. If these girders were cast in one place, they would have laid 122 tons which would have precluded shipping them to the site. So, splicing them at the site made the project feasible by also eliminating the need for falsework in the river."

Co-Winner

Best Bridge with Span greater than 135 feet

US-30/N-92 Clarks Viaduct

Clarks, Nebraska

Entrant Firm:
Tadros Associates, LLC
Omaha, Nebraska
Engineer:
Tadros Associates, LLC
Omaha, Nebraska
Owner:
Nebraska Department of Roads
Lincoln, Nebraska
General Contractor:
Hawkins Construction Co.
Lincoln, Nebraska
Precaster:
Concrete Industries, Inc.
Lincoln, Nebraska

Jury Comments:

"We think this is an extremely innovative solution that allows girders to be extended in their span range. The use of cast-in-place girders at the bents and providing for full continuity of the girders for both deck and live loads is efficient. It is a very innovative solution to stretch beams out a very long way. We think we will see a lot more of this in the future. This extends the applicability of prestressed girders, which is a concern of most bridge engineers. The connection over the pier is innovative. We think that other designers will be able to apply this technique in other ways. This solution pushes the limits with regard to slenderness and wide-girder spacing."

SPECIAL AWARDS JURY

Norm Lach
Assistant Professor
Department of Architecture & Interior Design
College of Applied Sciences & Arts
Southern Illinois University
Carbondale, Illinois

Chairman
Ed Losch
Engineer
Losch Engineering Corp.
Palatine, Illinois

George D. Nasser
Editor Emeritus
PCI JOURNAL
Chicago, Illinois

Special Award Winners

Best All-Precast
Co-Winner
Aurora Municipal Center and Parking Structure
Aurora, Colorado

Entrant Firm:
Barber Architecture
Denver, Colorado
Engineer:
S.A. Miro
Denver, Colorado
Owner:
City of Aurora
Aurora, Colorado
General Contractor:
The Weitz Company
Denver, Colorado
Precaster:
Rocky Mountain Prestress
Denver, Colorado

Jury Comments:

"This a worthy addition to the Aurora Colorado Civic Campus. The total precast concept allowed for a significantly faster schedule than would be possible using precast cladding on a steel building. The design called for a classical stone masonry aesthetic that signifies stability, durability and timelessness. Acid-etched precast and superior attention to detail provided this look. This timeless structure was, therefore, constructed in a timely manner. In the council chamber, 70-ft clear spans were accommodated easily by using 32-in. deep double tees. The 800-car parking deck is integrated well by using the same finishes throughout, thus presenting a unified whole. The City of Aurora can be justifiably proud of its award winning Civic Campus."

Harry H. Edwards Industry Advancement Award

Co-Winner

Skyline Bridge

Omaha, Nebraska

Entrant Firm, Engineer, Owner:
Nebraska Department of Roads
Lincoln, Nebraska
Deck Design, Research and Development:
University of Nebraska-Lincoln
Omaha, Nebraska
General Contractor:
Hawkins Construction Company
Omaha, Nebraska
Precaster:
Concrete Industries, Inc.
Lincoln, Nebraska

Jury Comments:

"The potential for using full-depth precast concrete panels in new or rehabilitated bridge decks has been demonstrated before, but not fully implemented. The successful implementation of the NUDECK panel system in the Skyline Bridge will go a long way in convincing bridge engineers that such bridge decks can be applied routinely and economically. Construction time is significantly reduced and service life is increased."

This project is featured in the September-October 2004 PCI JOURNAL (see pp. 40-50).

Best All-Precast

Co-Winner

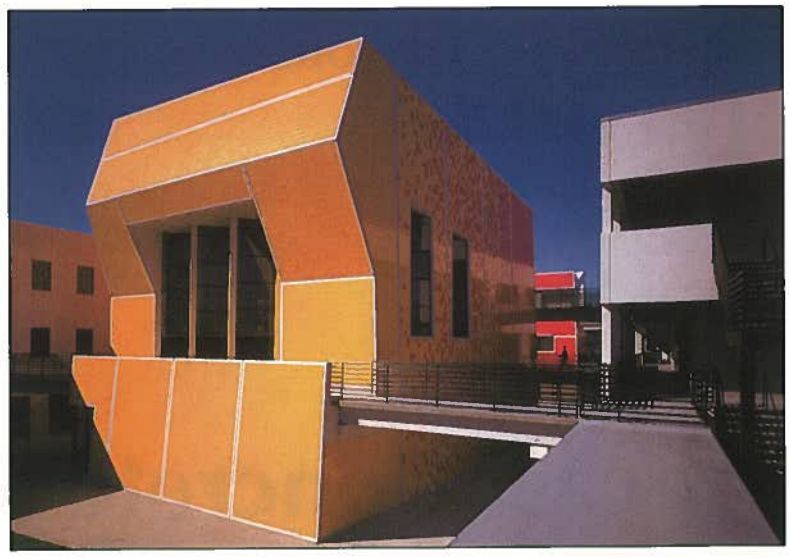
Hayward San Mateo Bridge Widening

San Mateo/Alameda Counties, California

Entrant Firm, Engineer, Owner:
California Department of Transportation (Caltrans)
Sacramento, California
General Contractor:
Balfour Beatty Construction Co.
Suisun City, California
Precaster:
Pomeroy Corporation
Petaluma, California

Jury Comments:

"This project is unique in that a total precast concrete structure, comprising cylinder piles, bent cap shells, bulb-tee girders, and stay-in-place deck panels, proved to be structurally superior and economical. Seismic design details were also incorporated in the structure. The structure was engineered for a 50-year design life, using epoxy-coated reinforcing steel, high performance concrete, silica fume, and other special details."



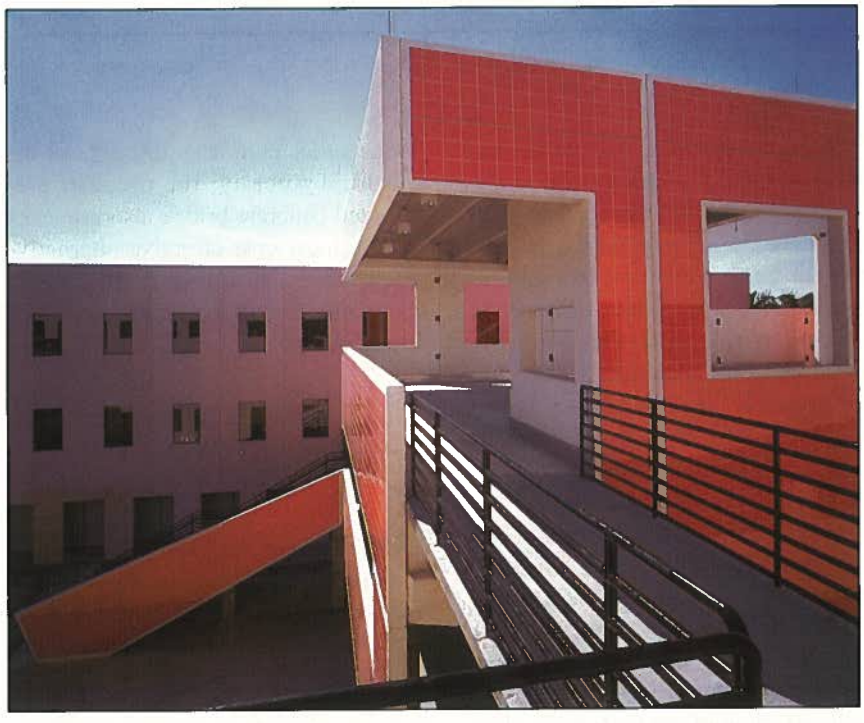
Harry H. Edwards Industry Advancement Award

Co-Winner

School of Architecture Florida International University

Miami, Florida

Entrant Firm and Engineer:
BEA International, Inc.
Coral Gables, Florida
Owner:
Florida International University
Miami, Florida
General Contractor:
Biltmore Construction
Tampa, Florida
Precast Concrete Specialty Engineer:
Salmons P.C.
Albuquerque, New Mexico
Precaster:
Coreslab Structures (MIAMI) Inc.
Medley, Florida
Precast Concrete Detailer:
Precast Inc.
Jackson, Wyoming



This project was featured in the July/August 2004 PCI JOURNAL. (See pp. 58-71)

Jury Comments:

"This unique design offers a variety of precast concrete components, including structural double tees supported by loadbearing precast concrete panels, precast concrete stairs and lecture hall risers. In addition, the architect used precast concrete bridges and covered walkways to link the School of Architecture with other campus buildings.

The New School of Architecture is well integrated into the Florida International University Campus. It offers easy entrance access from the Campus Mall and carpark, and is neatly aligned with the surrounding campus buildings. The architect provided a covered sunscreen terrace on the south and west sides of the building, while placing the architectural design studios and jury room on the north side to take advantage of natural daylight. Future expansion has been considered to surround the palm tree courtyard. Brightly-colored ceramic tiled architectural precast panels gives the architecture building a regional South Florida flavor.

Economy was a major factor in selecting precast concrete as a total building solution of choice. The project was completed on a $125 per sq ft budget and gave the university a beautiful, durable, sustainable, fireproof structure that will be a signature campus building. The use of exposed structural and architectural precast, as well as exposing most of the ductwork, conduits, sprinklers, and acoustical baffles, makes for an outstanding living/learning teaching tool for architectural students. What better way to market precast concrete to future architects."