

2009 PCI AWARD WINNING PROJECTS USING LEHIGH WHITE CEMENT

Best Office Building Award



Edward Jones North Campus Building B2 Maryland Heights, MO

Precaster: [High Concrete Group LLC, Denver, PA.](#)

Website: www.highconcrete.com

This six-story, multiphase expansion of a suburban corporate campus endeavored to maximize design and function while remaining within budget. The warm aesthetic characteristics of limestone made it the material of choice by the owner and architect. The use of limestone, however, would have limited the scope of the project. Fortunately, precast concrete has the unique and enviable ability to take on the characteristics of many other materials.

The architect and engineer took precast concrete's unique strengths a step further by incorporating carbon-fiber-grid reinforcement into the precast concrete panels. This not only allowed them to achieve the limestone aesthetic qualities they needed, but also allowed the panels to remain under 50 lb/ft², greatly simplifying the project and eliminating the need for a structural redesign. Further playing to precast concrete's moldable characteristics, the architect worked with the material to create a Bauhaus-inspired design incorporating expanded polystyrene insulating foam, green-tinted glass, and sunshades.

Best Public/Institutional Building Award



Salt River Pima-Maricopa Indian Community Tribal Government Complex Phoenix, AZ

Precaster: [Coreslab Structures Inc., Phoenix, AZ](#)

Website: www.coreslab.com

This new three-story government facility provides a centralized location for community members to conduct government business while also attempting to embrace the local design language. The original design called for the south- and west-facing walls of the buildings to be constructed out of cast-in-place concrete. However, having a three-story battered wall of cast-in-place concrete posed obvious challenges of quality, cost, and schedule.

Precast concrete solved these concerns but posed another challenge; it looked too perfect and didn't integrate with the cast-in-place concrete that already existed. By utilizing the highly flexible nature of precast concrete, the architect and the construction team innovatively developed a series of reveals, colors, and textures to create precast panels that successfully emulated the style of battered earth walls. The resulting structure represents the local culture and values while offering all the cost and placement advantages of precast concrete.

Best Retail / Mixed Use Building Award



South of Market Office & Retail Complex - Reston, VA

Precaster: High Concrete Group LLC, Denver, PA

Website: www.highconcrete.com

Pivotal to this project's success was the creation of an exterior appearance that related to the elegant East Coast setting while also breaking new ground in contemporary design. This mixed retail and office development of two 10-story towers and one 6-story tower responds well to its environment through the choice of deep-sandstone-colored thin-brick veneer in the exterior precast concrete panels. Further rooting the building in its environment is the use of an aluminum-clad precast concrete panel roof overhang that brings a Prairie-style charm to the structure and subtly emphasizes the expressed horizontals in the thin-brick exterior precast concrete panels.

Although all three buildings share a ground level and a two-story underground parking garage, through the use of a varied pattern of architectural precast concrete pieces and glass, the architect was able to create the appearance of three separate buildings, further allowing the structure to integrate well with its environment. With the building's unique precast concrete exterior, the project has been able to reach near-full occupancy, far outpacing the broader area.

Best School Award



Sutardja Dai Hall Technical Building Berkeley, CA

Precaster: Willis Construction Co., San Juan Bautista, CA

Website: www.willisconstructionco.com

This unique educational facility houses a broad range of educational functions, including a research laboratory space, a conference space, and a social activity space. Accommodating this smorgasbord of functions was not extremely difficult in itself, but doing so while remaining responsive to the building's context was. Matching the aesthetics and spirit of the environment proved to be a significant challenge to the designers, as the surrounding area is saturated in the Arts and Crafts style of architecture.

Directly next to this new seven-story building is an example of this style, the campus's first building, which was built in 1914. The Arts and Crafts style centers around a strong devotion toward expressing the hard-to-replicate appearance of architectural elements created by hand. As can be imagined, emulating this with precast concrete was quite challenging. As a nod toward durability and the high-tech nature of the functions performed within the building, the design team chose precast concrete as the exterior material early in the design process. Additionally, the team selected glass-fiber-reinforced concrete because it adapts well to shapes and textures. Ultimately, through the use of a special concrete slurry and real spruce pieces to mimic texture, the design team was able to create precast concrete panels that both matched the building's surroundings and maintained the architectural style of the area.

Best Stadium Award



Citizens Business Bank Arena - Ontario, CA

Precaster: Clark Pacific, Fontana, CA
Website: www.clarkpacific.com

Precaster: Mid-State Precast, Corcoran, CA
Website: www.midstateprecast.com

This multipurpose all-precast concrete arena is home to a hockey team, concerts, trade shows, and community events. Its flexible floor plan covers 220,000 ft² and its 50 ft glass facade, the “front door” to the community, bathes the interior in natural light and becomes a sparkling attraction in the evening. The wide array of unique, usable spaces was accomplished thanks to an innovative structural system. A highly cost-effective system of precast concrete stadia, raker beams, and columns produced a design free of shear walls, allowing a freer use of space, especially in the tight concourse.

The precast concrete moment-frame design also resulted in a lower cost to build and maintain the structure. It required less detailing in design and construction and made possible a more weathertight skin that will save in long-term maintenance. Precast concrete did not just contribute an innovative structure; it also helped allow for a unique exterior. Contributing to the building’s strong horizontal focus, precast concrete panels of varying color and finish together with metal sheathing and glass created a rich and engaging building exterior that eliminates the overpowering sensation that one can experience in the presence of stadia. Overall, precast concrete played a major part in the success of this project.

Best Custom Solution Award



Annenberg Community Beach House Santa Monica, CA

Precaster: Mid-State Precast, Corcoran, CA
Website: www.midstateprecast.com

The Annenberg Community Beach House project is the rehabilitation and adaptive reuse of the historic 5 1/2-acre Marion Davies Estate constructed in the 1920s. The challenges to the project were many. The project experienced early delays due to the discovery of unforeseen buried historical elements and footings for the original main house.

In addition to this, every step of the project required careful review with a historic consultant. The design of the new pool house reinterprets the key historical elements of the original structure. Central to the architect’s design and a source of major innovation was the visual reinvention of the original iconic columns through the use of symbolic columns along the pool house exterior. The architect’s aesthetic vision called for a highly refined concrete mixture and special form system to create these columns. The precaster worked closely with the architect to develop samples of the mixture, final texture, and lift/brace points. The resulting precast concrete columns, with their perfect color, shape, and harmony, are as dramatic as the columns of nearly a century ago and will continue to inspire for the century to come.

Sustainable Design Award



Melrose Commons Site 5 - Bronx, N.Y.

Precaster: Oldcastle Precast Building Systems,
Edgewood, MD

Website: www.oldcastleprecast.com

This affordable-housing project endeavors to bring a safe, quiet environment to its tenants while simultaneously pushing the boundaries of sustainability. The five-story, all-precast concrete structure includes 63 units, ranging from 620 ft² one-bedroom apartments to 1355 ft² three-bedrooms. Precast concrete was the construction material of choice because of its speed of erection, minimal air infiltration, durability, decreased material waste, and inherent green building properties.

Because of the tight site and busy urban setting, one of the key challenges was the lack of space for staging or lay-down. This logistical challenge was mitigated by using an all-precast concrete building system and thin-brick veneer exterior wall panels, which enabled the project to be quickly erected with limited disturbance or impact to adjacent properties and neighbors. Currently, this project is awaiting the award of Leadership in Energy and Environmental Design (LEED) platinum certification, the highest rating offered in the LEED program. Upon award, this will be the first all-precast concrete housing project to receive a LEED platinum rating, proving that through the use of precast concrete, cost savings and sustainability can finally be compatible goals.

All Precast Solution Award



Stillwater Public Library - Stillwater, MN

Precaster: Molin Concrete Products Co.
Lino Lakes, MN

Website: www.molin.com

To meet increased local demand, the Andrew Carnegie library needed both a renovation and an expansion. Key challenges of the project included alleviating the original library's deficiencies in space, demand, and street parking. The new building achieved all of these programmatic objectives while also complementing the original library's classical 1902 design. Many features of the original historic building were carved out of limestone.

Because the cost of constructing new limestone would have been prohibitive, architectural precast concrete lent itself well to recreating aspects of the original building. The design team and the precaster partnered early in the project and worked for a year designing samples to match the original. The end result is a seamless integration of the new and the old.

HONORABLE MENTIONS

Best Office Building Honorable Mention



US Bank Tower 621 Capitol Mall - Sacramento, CA

Precaster: [Willis Construction Co. Inc., San Juan Bautista, CA](#)

Website: www.willisconstructionco.com

This 25-story Sacramento office tower is unique in its embrace of a transparent design theme while remaining sensitive to the surrounding historic brick and stone structures. By finding and maintaining an ideal mixture design and sandblasting technique, the designer and precaster were also able to achieve a remarkably inconspicuous between normalweight precast concrete and GFRC on the building's exterior.

Best Public/Institutional Building – Honorable Mention



Harm A. Weber Academic Center at Judson University - Elgin, IL

Precaster: [Mid-States Concrete Industries](#)

[South Beloit, IL](#)

Website: www.msprecast.com

By utilizing the unique benefits inherent in precast concrete—high thermal mass, minimal site disturbance, and freedom in prefabrication design—this groundbreaking facility was able to become the first building of its type to utilize natural ventilation in the Midwest's extreme humidity and temperature differentiation. This, coupled with a comprehensive system integration design methodology, aided the building in receiving a LEED gold rating.

Stadiums/Arenas/Sports Facilities Honorable Mention



Lucas Oil Stadium - Indianapolis, IN

Precaster: [High Concrete Group LLC, Fishers, IN](#)

Website: www.highconcrete.com

This retractable-roof multipurpose stadium calmly compliments the surrounding downtown Indianapolis manufacturing buildings through its use of color-matched, pre-insulated, brick-inlay architectural precast concrete panels. In addition, the stadium made extensive use of a new type of specially designed gravity connection to support the arched precast soffits over the main entrances.

Best School – Honorable Mention



Henry Madden Library at Fresno State University Fresno, CA

Precaster: [Clark Pacific – West Sacramento](#)

[West Sacramento, CA](#)

Website: www.clarkpacific.com

This California State University library sought to embrace the design language of aboriginal central valley people through its synthesis of glass, metal, and precast concrete. The patchwork nature of the exterior precast concrete panels creates visual intrigue and conceals the breaks between the panels, evoking the notion that the entire wall is a single unique tapestry.

Harry H. Edwards Industry Advancement Award-Honorable Mention



Principal Child Development Center and Parking Structure - Des Moines, IA

Precaster: [IPC Inc., Des Moines, IA](#)

Website: www.ipcprecast.com

This innovative precast structure provides two great benefits: an early-child-care development center and a secure parking facility for all downtown employees.

Because of precast concrete's inherent design flexibility, large structural revisions were possible while the structure was deep in the construction phase. This cost-effective structure achieved a LEED gold rating, proving that low cost and sustainability need not be opposing goals.