

Durability, Continued Performance Makes Precast a Common Choice



Radisson Blu MOA. ©Hanson Structural Precast 2013

Resiliency is a key attribute of high-performance structures. It can be measured in how well the structure stands up to natural and man-made forces and how well it resists and rebounds from such disasters as earthquakes, fire, blast, and high winds.

Stated another way, high-performance structures must be durable and must demonstrate high performance over time. They make use of building materials and systems that integrate and optimize attributes that provide long-term performance and durability.

Thanks to their inherent strength, engineering, and resiliency, precast components and building systems from Hanson Structural Precast meet these requirements. Hanson products and systems can be utilized to meet a variety of building types and sizes, design demands, and construction challenges, and continue to perform long term.

Proof that a building material performs well over time becomes apparent when regional building owners and designers continually choose the material based on the continued success and performance of existing, nearby structures.

As an example, look at the Mall of America (MOA) in Bloomington, Minn. Built over a 20-year span, a half dozen major precast concrete projects by Hanson Structural Precast surround this landmark development. Opened in 1992, the MOA can only be described as superlative with more than 4.2 million square feet, 520 stores, 25 rides and attractions in an indoor park, 40 million visitors annually, and one of the top tourist attractions in the country. It still ranks



28th Avenue Park & Ride. ©Hanson Structural Precast 2013

as the nation's largest retail and entertainment complex.

Hanson precast projects are on all four sides of this enormous structure:

MOA East/West Parking Ramp

Part of the original MOA construction, two massive parking structures flank the east and west side of the mall. The nearly identical, seven-story parking ramps contain a total of 12,550 parking spaces. The total precast ramps utilized precast double tees, spandrels, columns, beams, wall panels, and stairs from Hanson Structural Precast. "At the time, this was the largest precast contract ever signed in the United States," said Gary Pooley, sales manager for Hanson's Midwest Region. "The deck was so large that it had specified snow dump areas within the footprint of the buildings. It was the biggest project we had ever done."

Courtyard Hotel

Built just to the southeast of the MOA in two phases in the mid-1990s, the seven-story Courtyard Minneapolis Bloomington by Marriott contains 203 rooms and 2,800 square feet of meeting space. The building features Hanson precast columns, beams, hollow-core plank for the floors and roof, and interior 8-inch-solid, precast demising walls. Precast 30-foot planks span the building. Three hotel rooms fit in each bay.

IKEA Parking Deck

In 2004, Hanson provided precast columns, beams, double tees, and spandrels, for the 110,000-square-foot, elevated parking deck adjoining the new IKEA Twin Cities store across the street on the northwest corner of the mall. The single level deck, with parking on the roof, contains 320 parking stalls and provides an open stairway to on-grade asphalt parking. Hanson also provided precast components for a one-story deck for delivery truck on the opposite side of the store.

28th Avenue Park & Ride

A light rail line to downtown Minneapolis runs to the east of the MOA. In 2008, Hanson architectural precast cladding was utilized for a new five-level, 1,450, space cast-in-place parking ramp as part of the rail system. The precast cladding features an acid-etched, sand-blast finish. "We felt precast was the appropriate cladding for the building," says Greg Finstad, PE, senior professional engineer for project architect Short Elliott Hendrickson Inc., with nearby offices in Minnetonka, Minn. "We looked at what would be the best product for the aesthetics we wanted. Precast was cost competitive and attractive."

Radisson Blu MOA

Directly connected via skyway to the MOA at the mall's south side, is the brand new Radisson Blu hotel.

Completed in March of this year, the 500-room, 16-story building is covered with Hanson precast architectural cladding. Both acid-etched and sandblasted precast panels in two primary colors and with an interesting reveal pattern are used on the hotel. In addition to the aesthetics, the locally produced, precast cladding adds to the project's sustainability with recycled reinforcement and fly ash replacement of cement in the structural portion of the panels. The horizontal, 6-inch-deep wall panels run floor-to-floor, and stretch 27-feet from column to column. The precast cladding was a major factor in the project's fast building schedule, according to architect Troy Fountain, AIA, of ESG Architects, Minneapolis.

Phase II of the MOA, to be built adjacent to the IKEA store to the north of the original mall, is scheduled to break ground in the last quarter of 2013. This development will include another luxury hotel, retail, dining, and a 545-space underground parking ramp. It's likely there will be more local precast concrete success stories in the future.

"We're proud to continue to help build up this major commercial area in Minneapolis," said Hanson's Pooley. "Surrounding building owners, their architects and engineers, keep coming back to us because our structures have lasted, handled everything that has come along, and have continued to perform. We pass the test of time." 

