

- MIT researchers prove green value, p. 4
- FMCSA's heavy hands, p. 8
- Cemex CO2 calculator, p. 12
- NPCA Chairman, p. 28
- Lift truck report, p. 36
- Chute wash system, p. 39
- Oldcastle Precast, p. 48



FEATURE

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## ARTISTIC MASTERY OF MATERIALS

PCI DESIGN AWARDS SHOWCASE WINNERS EXEMPLIFY A TREND AMONG TODAY'S ARCHITECTS AND DESIGNERS

In all, 28 projects, comprising 22 buildings and six bridges, were named winners in the recent PCI Design Awards competition sponsored by the Precast/Prestressed Concrete Institute. They represent a broad range of building and bridge types and were singled out for extraordinary design, sustainability, attention to detail, innovation, speed of construction, and industry advancement.

Collectively, the winning projects point to a number of developing architectural themes or directions that are setting the stage for new building designs in the years ahead. As evident in the projects shown here, today's architects are becoming increasingly adept at working with their material and building system providers to maximize the design potential of concrete.

### CAPITALIZING ON VARIETY OF FINISHES

Designers have become adroit at utilizing the inherent design possibilities and aesthetic versatility with the nearly unlimited variety of colors, textures and finishes tied to precast concrete construction.

Precast components can easily mimic conventional masonry and natural stone.

Thin brick, flagstones, ceramic tile and terra cotta can all be veneered into precast concrete panels. Form liners can produce an unlimited range of patterns and shapes. Coloring agents, paints, stains and pigmented admixtures produce a variety of hues and tones. Surfaces can be broom, float or trowel finished, stippled, water-washed, acid etched, sandblasted, or tooled. Architects are learning to use this pallet of aesthetic options to its fullest.

**"Hokie" stone.** At the Hahn Hurst Basketball Practice Center in Blacksburg, Va., home to Virginia Tech's basketball programs, architect Cannon Design of Baltimore chose a custom, buff limestone finish on exterior precast panels to blend with the existing campus architecture featuring "Hokie" stone. Detailed copings, sills and window surrounds complete the effect. Several custom imprints were cast into some panels, such as basketballs, Virginia Tech logos, and an 1872 seal. Over 500 architectural precast panels were required, including some weighing 34,000 pounds. The large panels facilitated an

accelerated precast erection timeline that took just one month.

**Old World elegance.** Architects for the Elysian, a graceful 60-story hotel and residence in downtown Chicago, capitalized on the design possibilities of architectural precast panels to capture the look and feel of Old World elegance. Precast panels were designed to mimic highly textured, natural stone, complete with old stone joinery, deep reveals and dramatic shadow lines.

The structure consists of a precast concrete exterior wall system on a cast-in-place concrete frame. Precast cladding allowed designers, Lucien Lagrange Architects of Chicago, to create special details at the base and top of the building and to use repetitive forms to complete the tower economically. Among building highlights is a richly-detailed, French-style motor court that provides a refined sense of arrival for the development. Essentially an outdoor vestibule to the main tower behind it, the motor court also creates separation from the busy streets beyond.

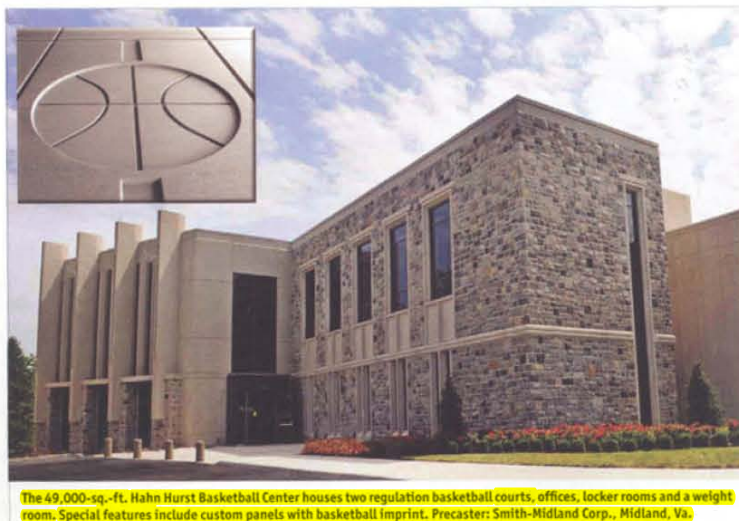
**Fake fossils.** A prime example that plant manufactured, precast concrete finishes can be produced that are truly unique and non-repetitive is showcased on the new Grand Prairie ISD Dubinski Career High School, in Grand Prairie, Texas. In order to

simulate large blocks of chiseled natural shell stone, Dallas architect Corgan Associates, Inc. worked carefully with the precaster to devise a unique finish that matched a real shell stone sample and that would be consistently inconsistent.

The precaster actually counted the number of real shells and fossilized voids in a sample of actual shell stone. From this a ratio of shells to panel size was devised, which determined the number of shells to be randomly placed in each panel during production. "Fossilized" scallop shells were then made from rubber molds cast off real shells imported from India. The rubber shell positives were scattered randomly on the form surface and hand glued down. Organic pigments were cast on the form to create "veins"; this was followed by placement of a low-slump, slightly vibrated concrete mix. The man-made material is virtually indistinguishable from natural shell stone.

### CREATING DESIGNS INFORMED BY CONTEXT

Designers have always realized that newly designed structures must relate to their surroundings and either expand the local architectural vision or, more often, complement the nearby historical, natural or man-made environment. But in the past, the



The 49,000-sq.-ft. Hahn Hurst Basketball Center houses two regulation basketball courts, offices, locker rooms and a weight room. Special features include custom panels with basketball imprint. Precaster: Smith-Midland Corp., Midland, Va.