

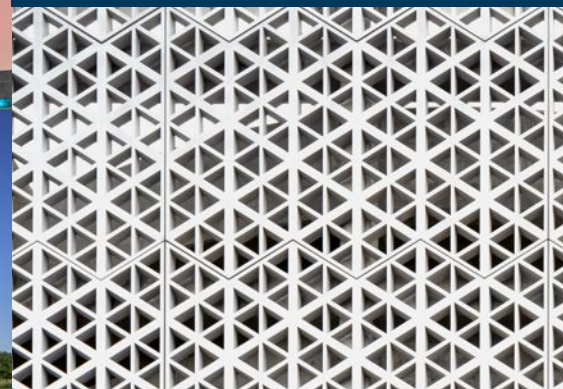
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DESIGNING WITH PRECAST CONCRETE

DIGITAL EDITION

SPRING 2025



2025 PCI
DESIGN
AWARDS



Sustainable Design Award *and* Healthcare/Medical Building

BAPTIST HOSPITAL CAMPUS

PENSACOLA, FLORIDA

PROJECT TEAM

Owner: Baptist Health Care, Pensacola, Fla.

PCI-Certified Precast Concrete Producer:
GATE Precast, Monroeville, Ala.

Precast Concrete Specialty Engineer:
GATE Precast, Lexington, Ky.

Architect: Gresham Smith & Partners, Jacksonville, Fla.

Engineer of Record: Gresham Smith & Partners, Nashville, Tenn.

General Contractor: Brasfield & Gorrie, Birmingham, Ala.

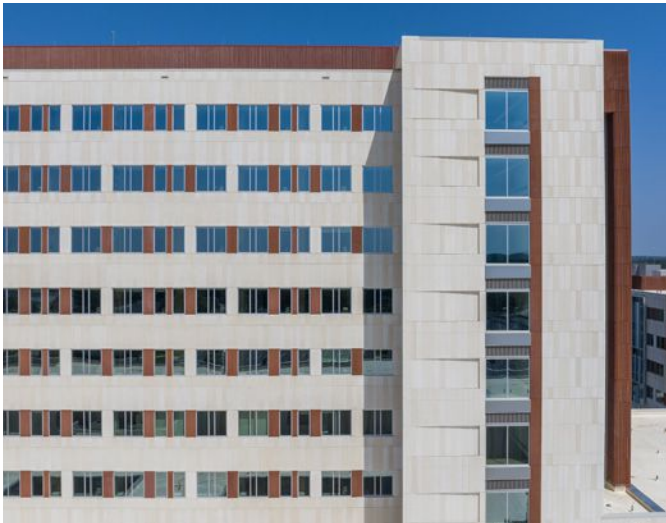
PCI-Certified Erector: Precision Stone Setting Company, Hiram, Ga.

Project Size: 850,000 ft²

While Florida has always been at risk for extreme weather, hurricanes have increased in frequency and intensity in recent years. As such, owners, engineers, architects, and general contractors alike seek building materials for critical infrastructure systems that are best suited to withstand volatile weather. Such was the case for Baptist Hospital in Pensacola, Fla., which originally opened in 1951 and was seeking a new campus. This new campus had stringent resiliency goals, which included supporting seven days of off-grid operational capacity and the capability of withstanding a 1000-year storm. To meet these goals, Baptist Hospital officials and project architect Gresham Smith & Partners chose an innovative precast concrete design and turned to GATE Precast to produce nearly 1000 precast concrete panels.

GENERATIONAL DURABILITY

Given the stringent resiliency goals and a tight construction timeline, precast concrete served as the optimal solution to build the 850,000 ft² facility. The main hospital and health center towers feature a thin, lightweight architectural façade system that is finished and unitized with structural glazing and insulation for a complete thermal, vapor, and air barrier. Selecting this system helped eliminate the need for traditional trades from the site, something that aided the project in reaching completion in just 48 months. Additionally, the façade features simulated terra-cotta accents along with a simulated stone finish, creating varying shades of color and generating a timeless exterior appearance.



Photos: Chad Baumer Photography

Skip Yauger, senior vice president at Gresham Smith & Partners, noted that one reason that precast concrete was chosen for the building's façade was to help the building withstand a Category 5 hurricane. Another critical consideration was the efficiency that precast concrete brought to the construction.

"Precast concrete allowed us to prefabricate large exterior panels in a factory environment and deliver them to the site with windows installed and insulation in place, improving quality and speed," he said. "The contractor estimates that we saved up to four months in the schedule by using this precast concrete system." With this time saved, the project was completed in just 48 months.

Precast concrete also offered a slew of sustainability benefits. For this project, the precast concrete panels were innovatively supported by a steel tube mainframe. This design allowed the overall thickness of the panels to be reduced since the need for sufficient concrete to cover reinforcing bars was eliminated. As a result, the lightweight panels each required 70% less concrete than typical precast concrete panels with steel reinforcing bars. Additionally, each of the panels contains a 2-in. layer of hydrofluoroolefin (HFO) polyurethane spray foam insulation. This coating provides an air and vapor barrier at the interior side. Impermeability was also achieved thanks to a well-consolidated mixture design with a low water-cement ratio.

Many of the precast concrete panels incorporated windows, which were installed ahead of time at GATE Precast's plant in Monroeville, Ala., before being shipped to the project site in Pensacola. This approach simplified installation, improved quality, eliminated waste, mitigated site disturbances such as storage or staging areas, and eliminated nearly 5000 work hours that would have been required on site if more-traditional methods were used.

"This project replaced a leaking, 70-year-old, unsustainable building that was located in a poorly accessible location," Yauger said. "The new Baptist Hospital offers the community a state-of-the-art healthcare facility with the latest medical equipment and technology that is designed with the human experience foremost in mind." The new campus stands ready to serve the community for the next 75 to 100 years.



KEY PROJECT ATTRIBUTES

- The new 850,000 ft² Baptist Hospital features the latest medical equipment and technology.
- The hospital now has seven days of off-grid operational capacity and is capable of withstanding a 1000-year storm.

PROJECT AND PRECAST CONCRETE SCOPE

- Nearly 1000 precast concrete panels were manufactured to construct the façade of the new Baptist Hospital.
- The lightweight precast concrete panels are supported by an innovative steel tube mainframe.
- Completed in just 48 months, Baptist Hospital will serve the greater Pensacola, Fla., community for the next 75 to 100 years.