PCI.ORG DIGITAL EDITION

Spring 2024

ASCENT®

DESIGNING WITH PRECAST

2024 PCI DESIGN AWARDS

PCI
Precast/Prestressed Concrete Institute

70 years
PCIANNIVERSARY

Healthcare/Medical Building Co-Winner

PROJECT TEAM

Owner: Emory Healthcare, Atlanta, Ga.

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

Architect: HKS, Atlanta, Ga.

Precast Concrete Specialty Engineer: InfraStructure, LLC, Omaha, Neb.

Engineer of Record: Uzun + Case, Atlanta, Ga.

General Contractor: Brasfield & Gorrie, Atlanta, Ga.

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

Project Cost: $90.34 million ($1.97 million for the precast concrete)

Project Size: 180,000 ft² (35,000 ft² of precast concrete)

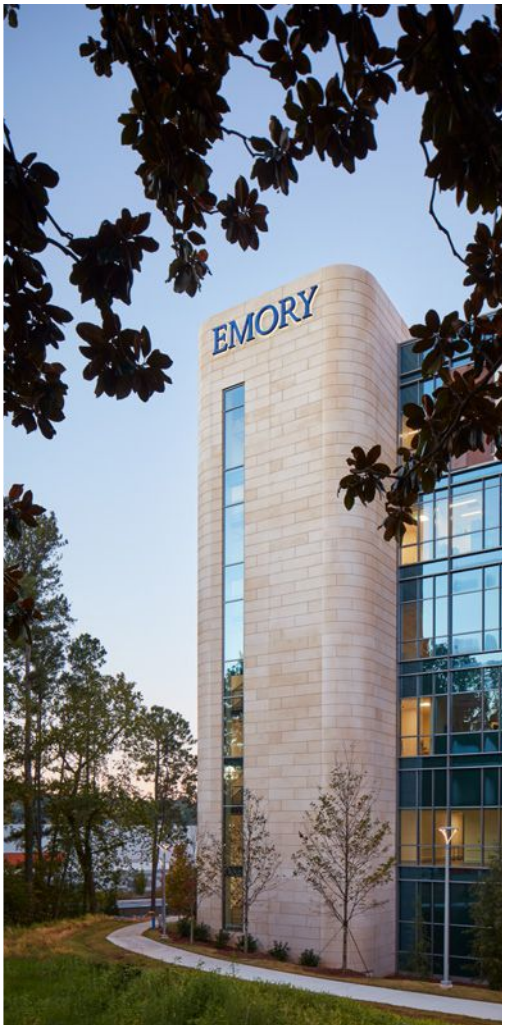
EMORY MUSCULOSKELETAL INSTITUTE

ATLANTA, GEORGIA

Integrating education, discovery, and healthcare, the Emory Musculoskeletal Institute located within Emory University's Executive Park in Atlanta, Ga., is a state-of-the-art facility that will aid in the diagnosis, treatment, and repair of bones, joints, and connective tissues to assist patients in regaining physical motion and activity. To bring the six-story, 180,000 ft² institute to life, GATE Precast Company of Monroeville, Ala., and architect HKS of Atlanta Ga., leveraged 35,000 ft² of precast concrete panels for the building's exterior, generating an iconic aesthetic that reflects the care taking place inside the building.

EXCELLENCE, INNOVATION, AND HEALING

Project owner Emory Healthcare tasked the design team with creating a comprehensive patient- and family-centered facility for nonoperative and surgical procedures. The institute's design needed to provide appropriate facilities for orthopedics and spine care, physical therapy, imaging, ambulatory surgery, and research. Pro-



Photos: Tom Harris.

grammatic requirements such as optimizing patient flow and clinical efficiency also played a major role in the design.

Another priority was aesthetics—the owner wanted the design to exemplify excellence and innovation. To achieve this vision, the design features several curved precast concrete panels, some spanning more than 11 feet in width. These curved panels provide a fluidity to the facility that mimics human anatomy, and precast concrete "offered the design team the ability to develop a textural building skin that represented bone structure," said Bill Leggett, AIA, CDT, senior project manager and principal with HKS.

He added, "Precast concrete was chosen for its panelized qualities, ease of construction, ability to shape the building, and textural qualities that support the design aesthetic. It was also chosen for its economic qualities as a building enclosure system and ease of construction."

Of the 35,000 ft² of precast concrete installed on the project, 20,000 ft² (108 panels) have a proprietary simulated natural limestone finish. These 5.5-in.-thick panels are located on the west elevation and southeast corner of the building. An additional 82 panels (12,000 ft²) each have simulated honed, medium-abrasive blast, and light-abrasive blast finishes. The remaining 3000 ft² of panels are 5 in. thick and were treated with a light-abrasive blast finish. Taken together, these panels combine perfectly with the electrified glass system on the south face of the building to provide an extremely energy-efficient southern exposed façade that boosts the facility's overall energy performance.

Precast concrete was the optimal solution because it is durable, could be erected efficiently, and provides the texture, depth, and massing desired. Its use also helped the facility meet LEED Gold standards. With an exterior aesthetic that reflects the importance of the work taking place within, the Emory Musculoskeletal Institute will serve as a place of healing and advancement for the community for years to come.

KEY PROJECT ATTRIBUTES

- **Emory Musculoskeletal Institute is a six-story, 180,000 ft² facility that provides exceptional clinical care, innovative research, and an enhanced experience for patients seeking care for bones, joints, and connective tissues.**
- **Thanks to the use of precast concrete, the project meets LEED Gold standards.**

PROJECT AND PRECAST CONCRETE SCOPE

- **Precast concrete's economic qualities allowed for a cost-effective, yet long-term solution to support Emory Musculoskeletal Institute and its patients for the long term.**
- **Natural limestone, simulated honed, medium-abrasive blast, and light-abrasive blast finishes were applied to the 35,000 ft² of precast concrete panels to achieve the intended design aesthetic.**
- **Curved precast panels provide structural fluidity that mimics the human body. Some of these panels span more than 11 ft in width.**