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Issue 29

## JQH Arena

*Springfield, Missouri*

***“Precast was selected for the exterior of the arena for economical reasons, and the challenge was to create a precast panel that did not look plain on the tall walls. The solution was a textured liner with a pattern intricately laid out to match each adjacent panel. The result was a unique façade that still complements the surrounding architecture and pays tribute to the region.”***

*Tom Heger  
Senior Project Manager  
JE Dunn Construction*



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Springfield, MO

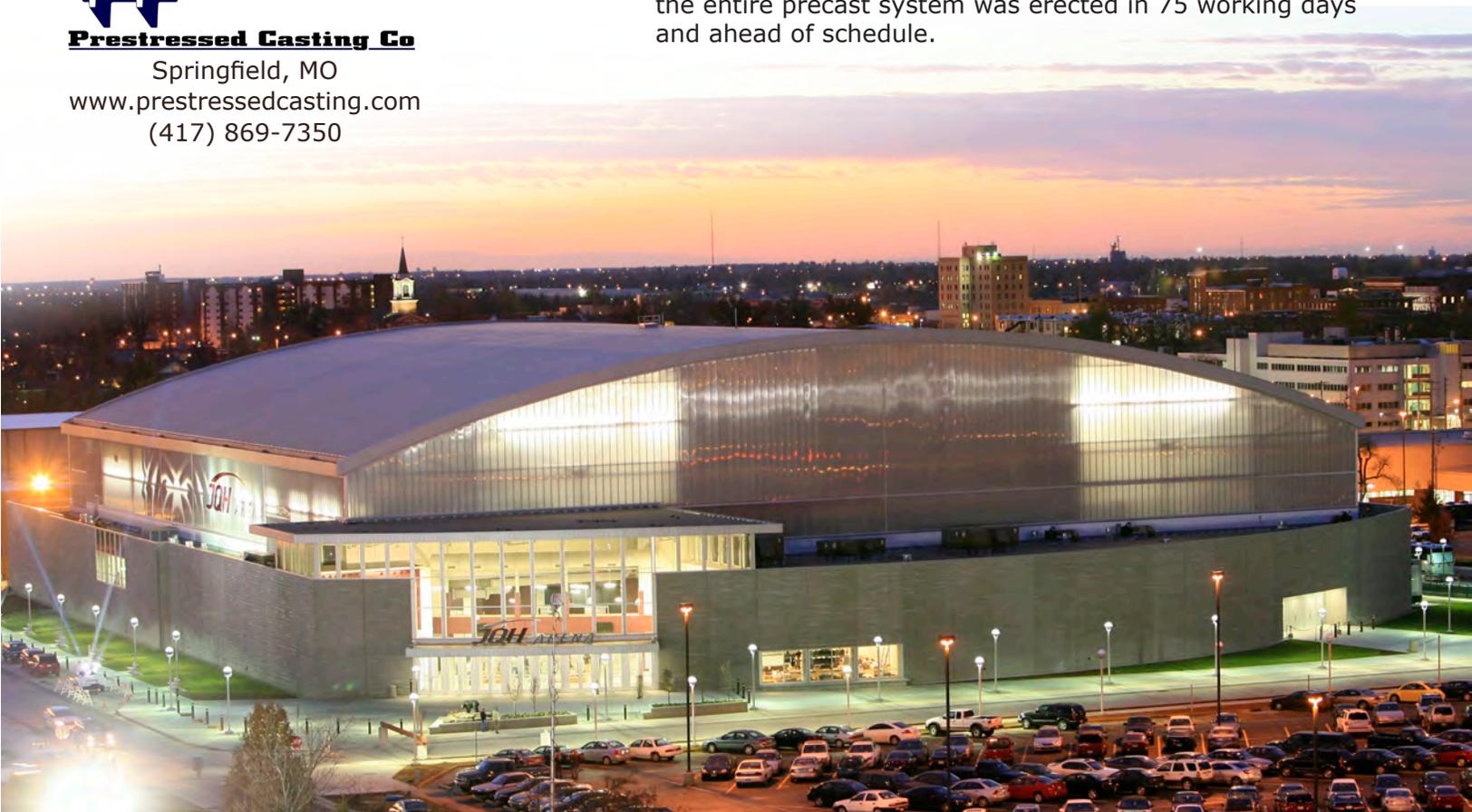
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Missouri State University is no stranger to precast concrete construction. Having numerous precast structures on its main campus in Springfield Missouri, there was little question as to what the main structural and architectural components would be when designing their new 67 million dollar basketball arena.

Architectural wall panels adorned with a cast-in “oak tree bark” finish, wrap the 900 plus precast components that make up the 11,055 seat arena. Over 50 miles of prestressing strand and 275 tons of reinforcing steel were utilized in just the precast elements. The use of a precast column, raker beam, and seating riser system, allowed for open usable space under the spectator seating.

The JQH Arena was completed in time for the opening game of the basketball season. Even with the wettest spring on record and uncovering an active artesian well during excavation, the entire precast system was erected in 75 working days and ahead of schedule.



Architect: Ellerbe Becket

Associate Architect: Pellham Phillips

Construction Manager: JE Dunn Construction

# Edward Jones World Headquarters

*St. Louis, Missouri*



*“By using precast we were able to create a new 21st century identity for our client while still remaining contextual to the immediate environment. In addition, it was an added benefit to work with a manufacturer with local representation and a regional plant; this aligned well with our firm’s goals of sustainable best practices by having reduced distance for shipping of materials.”*

**William Decker, Architect  
ARCTURIS**

The challenge was to construct a 6-story office building and 4-level parking structure concurrently on a tight site at a high-traffic intersection under an accelerated schedule. All work had to allow for the simultaneous operation of its corporate headquarters building that shared the site and to which the new office building would connect. This is Edward Jones World Headquarters.

The Office building presents a sleek facade of precast, metal, and glass that encourages the eye to linger and admire. The 287 precast cladding pieces bear on the steel structure and feature a buff color with limestone aggregate; light and medium sandblast finishes reflect the aesthetic set forth by the prominent existing building.

The Garage is a total precast structure comprised of 741 precast pieces, including 339 pre-topped double tees and all stainless steel connections. Its main stair/elevator tower projects 45 degrees from the west elevation of the garage; one of the angled walls is solid precast, the other is a glass curtainwall. Glass also incorporates as a grade-level band along the south elevation which complements the precast, giving the garage a crisp, smart look.

The Precast Producer’s quality control and its precise, just-in-time delivery of product to the crane produced precast components fabricated with consistent color, fit, and finish all erected to meet the project’s demanding schedule.

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**Architect: ARCTURIS**

**General Contractor: McCarthy Building Companies**

**Engineer: Alper Audi, Inc. with Precast Engineering and Seaboard Services of Virginia**

# Precast Concrete Sound Barriers

*Nashville, Tennessee*

**“The precast panels with the specified sound absorption material were very cost effective.**

**The precast wall does an excellent job of blocking the sound and is a great enhancement to the interstate as well as the adjacent neighborhood.”**

Bill Dement

Dement Construction Company, LLC



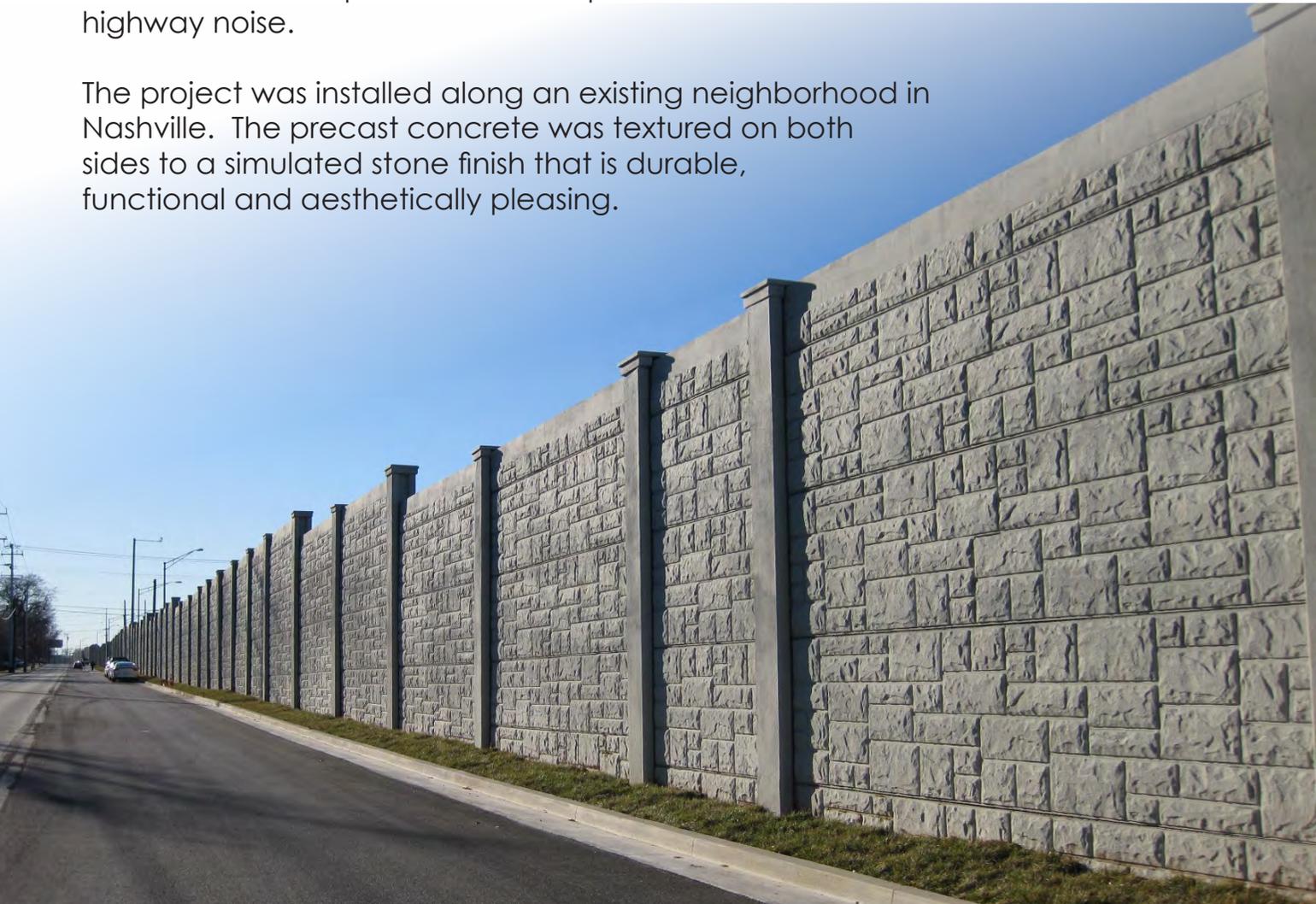
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The Tennessee Department of Transportation specified precast concrete for the sound wall installation along I-40 in Nashville. The project consisted of 35,777 sf of sound walls that were constructed using 527 precast concrete panels installed in precast H-beams over the 2,776 feet of the project. SoundSorb acoustic mitigation material was incorporated into the precast concrete construction to deaden the highway noise.

The project was installed along an existing neighborhood in Nashville. The precast concrete was textured on both sides to a simulated stone finish that is durable, functional and aesthetically pleasing.



Owner: TDOT

Contractor: Dement Construction Company, LLC

# Firekeepers Casino Parking Structure

*Battle Creek, Michigan*



“We selected precast for the Firekeepers Casino Parking Deck because of the tight schedule and winter construction. The ability to erect through the winter months allowed the project to be completed on schedule. Precast also resulted in an initial lower cost.”

~J. Bryan Miller, P.E.  
Director of Operations  
Walker Parking Consultants

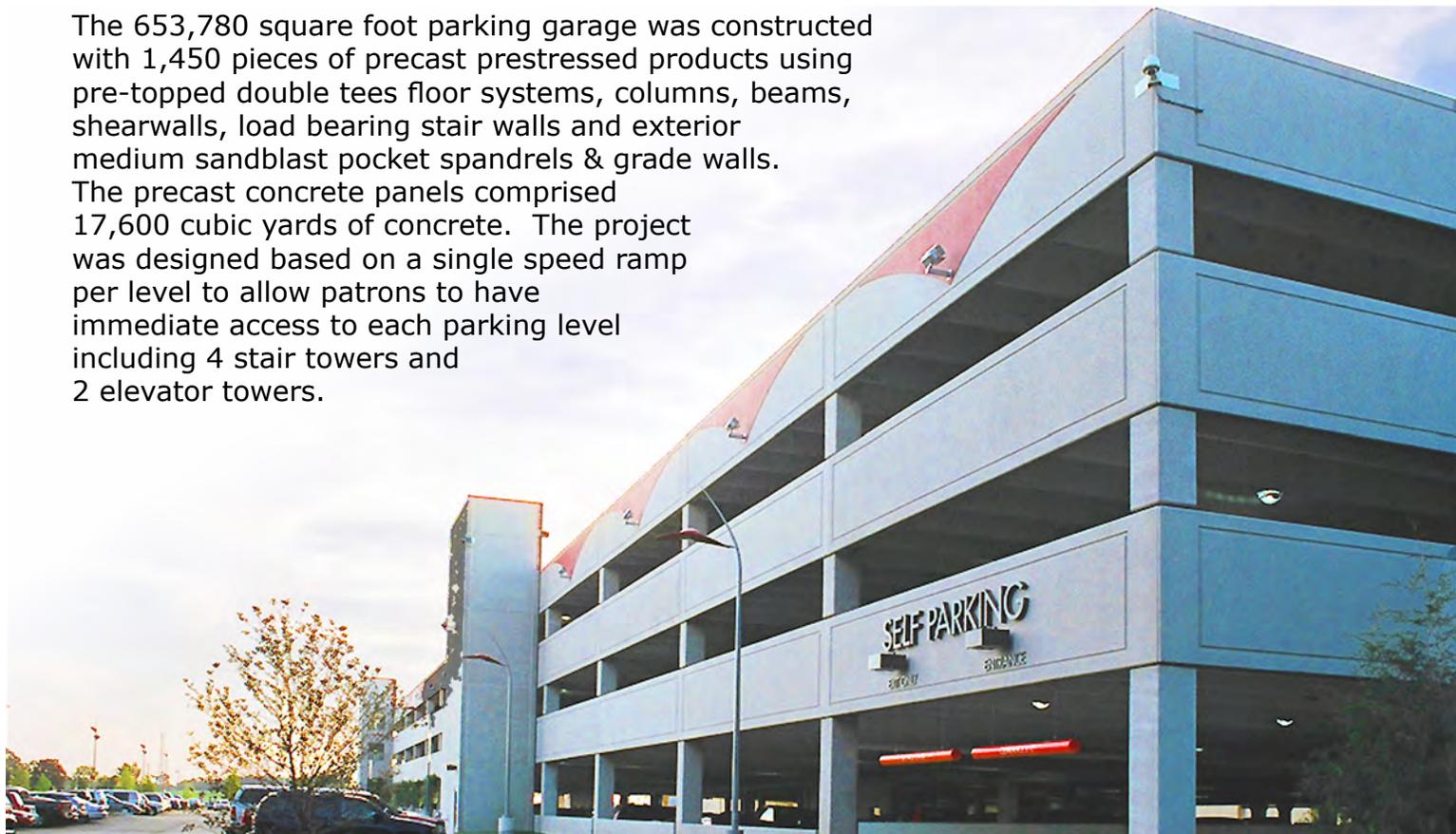
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Firekeepers Casino recently completed a five story precast concrete parking structure with 2,078 spaces. The garage is attached to the casino for easy access.

The 653,780 square foot parking garage was constructed with 1,450 pieces of precast prestressed products using pre-topped double tees floor systems, columns, beams, shearwalls, load bearing stair walls and exterior medium sandblast pocket spandrels & grade walls. The precast concrete panels comprised 17,600 cubic yards of concrete. The project was designed based on a single speed ramp per level to allow patrons to have immediate access to each parking level including 4 stair towers and 2 elevator towers.



Contractor: Clark Construction Company

Design: Walker Parking Consultants

# Air Motion Systems

River Falls, Wisconsin

*“Precast concrete panels were selected to meet the aggressive schedule which was critical to relocating this business from another state. The precast concrete panel system was desirable because of its durability, as well as the design flexibility for architectural elements on the exterior. Precast concrete contributed in several categories for this LEED certified project”*

Brian Hinz  
Elliot Architects



Grove City, OH  
(800) 900-8601  
[www.fabcon-usa.com](http://www.fabcon-usa.com)

Air Motion Systems was completely relocating from Colorado and required a seamless transition for manufacturing, which precast concrete helped them achieve.

The precast concrete panels were selected as an economical, durable wall system which overcame the challenges faced by the schedule and winter conditions. The speed of precast construction enabled the contractor to meet the tight schedule: 20,000 sf of precast concrete consisting of 133 panels was erected in 7 days. The high R-value and amount of recycled material in the panels were also important in achieving LEED certification for the project.



Architect: Elliot Architects

Engineer: Voigt & Associates Inc.

General Contractor: Derrick Commercial Contracting

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[www.pcicentral.org/lunch](http://www.pcicentral.org/lunch)