

# Winners of the Tenth Annual ACI Excellence in Concrete Construction Awards

his year, ACI celebrated a decade of honoring outstanding achievements in the industry at the ACI Excellence in Concrete Construction Awards. Over the past 10 years, we have had the privilege of recognizing individuals and organizations that have set new benchmarks for excellence, innovation, and leadership. Now more than ever, concrete design and construction must integrate creative techniques and technologies to keep up with ever-evolving economic, environmental, and aesthetic demands. The ACI Excellence Awards continues to provide the perfect platform to recognize these exceptional concrete projects from around the world.

Nominations were submitted by members of ACI's network of chapters and international partners, as well as by

online nominations. Projects were judged in the following eight categories:

- Low-Rise Structures (up to three stories);
- Mid-Rise Structures (four to 15 stories);
- High-Rise Structures (more than 15 stories);
- Bridges;
- Decorative Concrete;
- Flatwork;
- Infrastructure: and
- Repair and Restoration.

The competitiveness of this year's nominations required a judging panel of 35 industry experts (32 category and three overall judges). The panel adjudicated projects based on architectural and engineering merit; creativity; innovative

construction techniques, solutions, or innovative use of materials; ingenuity; sustainability and resilience; and functionality.

The winning projects were announced at the 2024 ACI Excellence in Concrete Construction Awards Gala during the ACI Concrete Convention on November 4, 2024, in Philadelphia, PA, USA. The winning projects were:

# **Overall Excellence and Repair and Restoration, First Place**

TSX Broadway – Palace Theater, New York, NY, USA

Nominator: ACI Concrete Industry Board of New York City Chapter

**Owner:** L&L Holding Company

Architectural Firms: Mancini Duffy and PBDW Architects (Platt Byard Dovell White Architects LLP) (Preservation) Engineering Firm: Severud Associates Consulting Engineers P.C.

**General Contractor:** Pavarini McGovern, LLC (Construction Manager)

**Concrete Contractor:** Sorbara Construction Corp. (Superstructure)

**Concrete Supplier:** Tec-Crete Transit-Mix Corp. **Other:** Urban Foundation/Engineering, LLC; Perkins Eastman; Cosentini Associates; and Langan



TSX Broadway, a 48-story complex in New York City's Times Square, involved the transformation of an existing building and the integration of advanced concrete methods to support its elevated structure and historic elements. The project used high-performance concrete, including a 14,000 psi (96.5 MPa) mixture and extensive use of slag cement, to minimize environmental impact and enhance durability. Sustainable practices were central to the redevelopment, including energy-efficient systems, high-performance curtain walls, and significant reuse of existing materials, contributing to a reduced carbon footprint and minimizing construction waste. The redevelopment preserved 25% of the original structure, minimized waste, and incorporated sustainable features like energy-efficient systems and high-recycled-content materials, significantly reducing its environmental impact.

#### Repair and Restoration, Second Place

One Wall Street, New York, NY, USA Owner: Macklowe Properties Architectural Firm: SLCE Architects Engineering Firm: DeSimone Consulting Engineering General Contractor: J.T. Magen & Company Inc. Concrete Contractor: Broad Construction Concrete Supplier: U.S. Concrete, Inc. New York Other: Broad Construction; Domani Inspection Services, Inc.; and Martin Marietta Materials, Inc.



The One Wall Street project, the largest office-tocondominium conversion in New York, NY, transformed a historic office building into 566 residential units and a retail space, incorporating six additional floors atop the original structure. This adaptive reuse involved integrating new concrete construction with the existing steel frame, using voided concrete slabs to reduce weight and support new additions while preserving the building's historic aesthetic. The approach minimized the thickness of the supporting transfer slab at the 30th floor, reduced the need to reinforce existing columns, achieved the desired residential floor-tofloor heights, and helped meet Leadership in Energy and Environmental Design (LEED) Silver sustainability goals. The project demonstrated sustainable practices by minimizing demolition waste, reducing the carbon footprint with lightweight concrete, and providing much-needed housing in a commercial area.

#### Low-Rise Structures, First Place

# Casa Olalé San Agustinillo, Santa María Tonameca, Oaxaca, Mexico

Nominator: ACI Southeast Mexico Chapter Owners: Jean Paul and Dominique Rigaud Architectural Firm: Jean Paul Rigaud and Arturo Gaytan-Covarrubias Engineering Firm: Esteban Astudillo

General Contractor and Concrete Contractor: Leonel Silva Mendez

**Concrete Contractor:** Leonel Silva Mendez **Concrete Supplier:** Cemex, S.A.B. de C.V.



This beautiful, large white house is located in the familyfriendly, quiet fishing village of San Agustinillo, on the spectacular coast of Oaxaca, on the Mexican Pacific. Casa Olalé San Agustinillo derives its name from the famous French expression "ooh lá lá." The house demonstrates concrete as a resilient solution in hurricane zones and incorporates innovative construction materials to minimize environmental impact, including low-carbon cement, photoluminescent concrete, and translucent concrete. Designed sustainably, it features natural ventilation, doubleheight rooms, rainwater collection, a biodigester for wastewater treatment, and energy-efficient appliances, aiming for EDGE certification.

#### Low-Rise Structures, Second Place

## Sports and Cultural Complex, Sangareddy, Telangana, India

Nominator: Indian Concrete Institute (ICI) Owner: Indian Institute of Technology Hyderabad Architectural Firm: HCP Design, Planning and Management Pvt. Ltd.

General and Concrete Contractor: Larsen & Toubro Limited – Buildings & Factories Concrete Supplier: Larsen & Toubro Limited – Buildings &



The Sports and Cultural Complex is Phase 2 of the campus development, spanning 27 acres (11 ha). It consists of a main arena, sub-arena, fitness center, cultural center, swimming pool, amphitheater, football/cricket field, and a running track, which is on par with international standards. The roof slab of all the buildings is a folded plate element with varying clear spans across facilities, such as the fitness center, sub-arena, cultural center, and main arena. The self-consolidating concrete (SCC) folded plate elements have a unique threedimensional (3-D) curvature with a continuously changing angle along the entire length. This innovative complex used M40-grade (40 MPa [5800 psi]) SCC with fly ash to reduce embodied carbon and incorporated sustainable practices, such as energy-efficient designs, renewable energy sources, and water conservation systems. Despite challenges, the project emphasizes sustainability, community engagement, and high indoor environmental quality.

#### Low-Rise Structures, Honorable Mention

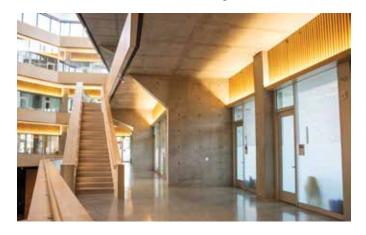
F1 Grand Prix Pit Building, Las Vegas, NV, USA Owner: Liberty Media Corporation Owner's Rep: Miller Project Management, LLC Architectural Firm: Klai Juba Wald Architecture + Interiors Engineering Firm: John A. Martin & Associates, Inc. (JAMA) General Contractor: The PENTA Building Group Concrete Contractor: All 5's Construction Concrete Supplier: Nevada Ready Mix Other: CMC Rebar, Doka USA Ltd., and Merli Concrete Pumping of Nevada, Inc.



All 5's Construction served as the concrete contractor for the 273,000 ft<sup>2</sup> (25,400 m<sup>2</sup>) pit building at the 2023 Formula 1 Heineken Silver Las Vegas Grand Prix, a logistically complex project that offers state-of-the-art facilities for fans and race teams. The three-floor structure, featuring pit crew garages, hospitality spaces, and a rooftop viewing area, consumed 20,344 yd3 (15,554 m3) of concrete and was completed in just 3.5 months through efficient collaboration and innovative concrete design. The pit building used a moment-framed concrete structure, which included structural concrete columns and structural concrete decks and beams. The absence of shear walls or concrete cores in the structure allowed for an open floor plan on each floor, spanning 1000 lineal ft (305 m). This project contributes to Las Vegas's emergence as a major sports capital and showcases advanced construction techniques like self-consolidating concrete and reusable materials.

#### Mid-Rise Structures, First Place

Cal Poly William and Linda Frost Center, San Luis Obispo, CA, USA Nominator: ACI Southern California Chapter Owner: California Polytechnic State University (Cal Poly), San Luis Obispo Architectural Firm: ZGF Architects LLP Engineering Firm: John A. Martin & Associates, Inc. (JAMA) General Contractor: Gilbane, Inc. Concrete Contractor: Largo Concrete, Inc. Concrete Supplier: CalPortland Other: San-Mar Construction and Largo Concrete, Inc.



This center features 126,417 ft<sup>2</sup> (11,744 m<sup>2</sup>) of faculty offices, classrooms, labs, and lecture halls designed to foster interdisciplinary collaboration and innovation. Concrete is a key architectural element, with 2000 yd<sup>3</sup> (1530 m<sup>3</sup>) of self-consolidating concrete used for vertical elements and 93,802 ft<sup>2</sup> (8710 m<sup>2</sup>) of elevated decks formed with the Titan HV Shoring system. Designed for a full liquid head placement rate, the walls were constructed with fifteen 21 ft (6.4 m) tall gang panels using EFCO super stud strongbacks and sheeted with Swanson Multipour HDO plywood. All vertical elements were cast using Nox-Crete Bio-Nox form-release agent and featured 90-degree corners. There are more than 24,000 ft<sup>2</sup> (2230 m<sup>2</sup>) of polished concrete floors. All of these elements contribute to the building's LEED Gold certification and seamless integration of academic spaces.

#### Mid-Rise Structures, Second Place

# Fred D. Thompson U.S. Courthouse and Federal Building, Nashville, TN, USA

Owner: U.S. General Services Administration (GSA) Architectural Firm: Fentress Architects (Design/Build AOR) Engineering Firm: Thornton Tomasetti General Contractor: Hensel Phelps Construction Co. Concrete Contractor: InfraStructure, LLC Concrete Supplier: GATE Precast Company Other: Precision Stone Setting Company, Heidelberg Materials, and Michael Graves & Associates, Inc./ TMPartners, PLLC



The Fred D. Thompson U.S. Courthouse and Federal Building features 280,000 ft<sup>2</sup> (26,000 m<sup>2</sup>) housing eight courtrooms, 11 judges' chambers, and a basement parking level. The design blends classical and contemporary elements, employing cast-in-place and precast concrete, including photocatalytic cement for the façade panels, which provides self-cleaning and smog-abatement benefits. Because blast loads are much greater than typical lateral loads, the project team developed customized connections for the precast concrete façade panels-connections that would also accommodate floor deflections and other types of loading. As a result, there are more than 700 different types of connections between the façade panels. The precast supplier, GATE Precast Company, ensured that each connection location, as well as reinforcement at each location, was optimized to maximize the aesthetics and retain the structural requirements. This project, the largest photocatalytic structure in the United States, showcases resilience and sustainability, contributing to its anticipated LEED Gold certification.

#### **Mid-Rise Structures, Honorable Mention**

Hélène Desmarais Building Pavilion, HEC Montréal, Montréal, QC, Canada
Owner: HEC Montréal
Architectural Firm: Provencher Roy + Associés Architectes Inc. (Provencher\_Roy)
Engineering Firm: SDK et associés inc.
General Contractor: Magil Construction
Concrete and Concrete Contractor: Demix Béton (CRH Canada)
Other: WSP Canada Inc.



The Helene-Desmarais Pavilion at HEC Montréal, in Montréal, QC, opened in August 2023. It is a flagship project featuring reinforced concrete and advanced architectural design to offer top-tier learning and study spaces across 32,500 m<sup>2</sup> (350,000 ft<sup>2</sup>). The reinforced concrete building is divided into four distinct sections. It has three wings, with an eight-story main wing, comprising learning and study spaces that meet the highest standards: quality premises, user comfort, cutting-edge technological services, and flexible spaces. The structure's unique design, including large glass façades angled for modernity, functionality, and sustainability, required innovative concrete mixture and formwork techniques to achieve high quality and durability. Aiming for LEED Gold certification, the pavilion incorporates sustainable elements, such as geothermal wells, efficient exterior envelopes, and green roofs, contributing to a reduction in carbon dioxide (CO<sub>2</sub>) emissions and urban heat islands.

#### **High-Rise Structures, First Place**

Kōʻula, Honolulu, HI, USA Owner: Ward Village/Howard Hughes Architectural Firm: Studio Gang Engineering Firm: BASE General and Concrete Contractor: Hawaiian Dredging Construction Company, Inc. Concrete Supplier: HC&D LLC



Kō<sup>•</sup>ula is a 41-story mixed-use development in Honolulu, HI, inspired by red sugar cane and featuring a distinctive undulating sculpted concrete exoskeleton. The structure consists of post-tensioned concrete floor plates, reinforced concrete columns, and shear walls, with an innovative central core design, allowing for efficient modular construction and cost savings. It was a challenge to fit the planned 41 stories within Honolulu's strict 400 ft (123 m) height limit. To meet the height limit, while providing generous ceiling heights within the typical residential units, a slab depth of only 7 in. (178 mm) was designed with post-tensioning for spans of up to 34 ft (10 m). The building, part of the LEED Platinum Ward Village, incorporates sustainable practices, including reduced material use and a concrete façade that lowers energy requirements, aiming for LEED Silver certification.

#### **High-Rise Structures, Second Place**

#### Piramal Aranya Arav Tower, Byculla East, Mumbai, Maharashtra, India

Nominator: ACI India Chapter Owner: Glider Buildcon Realtors Private Limited Architectural Firm: Sandeep Shikre & Associates (SSA Architects) Engineering Firm: Buro Happold General and Concrete Contractor: Larsen & Toubro Limited Concrete Supplier: Larsen & Toubro Limited

Other: Innovators Facade Systems Limited



Piramal Aranya, located in Mumbai, India, is a luxury multi-tower development project featuring the 282 m (86 ft) tall Arav Tower, offering panoramic views of the Botanical Gardens and Arabian Sea. The project employs advanced concrete technologies, including high-strength mixtures and temperature-controlled methods, while incorporating sustainable practices like water conservation and reduced cement content to lower carbon emissions. Arav Tower consists of ductile shear walls linked together by coupling beams. The central core behaves as a flanged section in combination with coupling beams and shear walls. Such a system was enough to cater to the lateral loads in both directions. The design integrates a variety of amenities, such as jogging tracks and landscaped areas, enhancing the residents' quality of life.

#### **Bridges, First Place**

#### 105 m Span Ultra-High-Performance Concrete Composite Bridge, Kuala Langat District, Selangor, Malaysia

Nominator: ACI Malaysia Chapter Owner: Bonus Essential Sdn. Bhd. Engineering Firm: VED Engineers Sdn. Bhd. General Contractor: Dura Construction Sdn. Bhd. Concrete Contractor and Supplier: DURA Technology Sdn. Bhd.



The 105 m (335 ft) Span Ultra-High-Performance Concrete (UHPC) Composite Bridge crosses the Langat River in Selangor, Malaysia. It uses UHPC for its precast/prestressed U-girders, which are topped by a standard reinforced concrete deck and an asphalt surface. UHPC was chosen for its cost efficiency, reduced weight, and long-term durability, offering significant sustainability benefits with embodied energy and carbon reductions of 65.6 and 58.6%, respectively, compared to structural steel alternatives.

#### **Bridges, Second Place**

#### Mumbai Trans Harbour Link (MTHL) Package 1, Mumbai, Maharashtra, India Nominator: ACI India Chapter Owner: Mumbai Metropolitan Region Development Authority (MMRDA) General and Concrete Contractor: L&T Construction

**Concrete Supplier:** L&T Construction



The Mumbai Trans Harbor Link in Mumbai, India, is the longest sea bridge, spanning 21.8 km (13.5 miles) and including a 10.38 km (6.45 miles) segment featuring both post-tensioned concrete viaducts and India's first orthotropic steel deck spans. With 600,000 m<sup>3</sup> (785,000 yd<sup>3</sup>) of concrete used, the project faced unique logistical challenges due to its marine setting, requiring floating barges for concrete batching and extensive planning for durability and quality control. Undertaking a project in the midst of the sea presents unique logistical challenges, particularly when it comes to the transportation and handling of concrete materials. This involves the intricate process of ferrying all necessary ingredients for concrete production to the remote marine site amidst the dynamic nature of the marine environment. Advanced concrete techniques were employed, including high-performance mixtures with slag cement for reduced CO<sub>2</sub> emissions and increased durability, while innovative construction methods ensured the successful placement of underwater piles and precast segments despite challenging conditions.

#### **Decorative Concrete, First Place**

Archives Départementales de l'Isère, Saint-Martind'Hères, Isère, France Nominator: ACI Paris Chapter Owner: Archives Départementales de l'Isère Architectural Firms: Arche 5 CR&ON and D3 Architects Engineering Firm: Artelia General and Concrete Contractor: Cuynat Construction Concrete Supplier: Vicat Other: Solétanche Bachy and Studio Erick Saillet



The Archives Départementales de l'Isère, located near the Université Grenoble Alpes campus in Isère, France, is a 25 m (82 ft) tall building designed to house up to 70 km (43 miles) of archival documents. The building is also a cultural venue dedicated to research and knowledge that welcomes the public and aims to contribute to the development of the local community. The structure features a distinctive combination of monolithic concrete blocks and extensive glazing, with high-performance concrete ensuring durability, fire resistance, and thermal stability, while its design integrates local materials and sustainable practices such as efficient energy use and reduced environmental impact.

#### **Decorative Concrete, Second Place**

SB Residence, Scottsdale, AZ, USA Architectural Firm: Tate Studio Architects Engineering Firm: VerteX Consulting Structural Engineers General Contractor: Build, Inc. Design + Build Concrete Contractor: Sullivan Builders



The SB Residence, located in the Sonoran Desert in Scottsdale, AZ, is a 4471 ft<sup>2</sup> (415 m<sup>2</sup>) split-level home emphasizing a harmonious integration with its natural surroundings and a design intended for generational longevity. Changes in elevation, coupled with a high expectation of a consistent finish appearance, required the specialty concrete features to be phased over an extended period of time. Environmental and weather factors causing variations in concrete appearance from one placement to another was one of the most difficult challenges to navigate. Close collaboration and excellent communication were the key to keeping the project moving forward and overcoming obstacles. Constructed with 467 yd<sup>3</sup> (357 m<sup>3</sup>) of concrete, the residence features cast-in-place, snap-tie monolithic walls and cantilevered steps, with meticulous attention to detail required to overcome challenges related to weather and elevation changes during construction, ensuring a consistent and high-quality finish.

#### **Flatwork, First Place**

West Edge, Los Angeles, CA, USA Nominator: ACI Southern California Chapter Owner: Hines Architectural Firm: Gensler Engineering Firm: Labib Funk + Associates General Contractor: W.E. O'Neil Construction

**Concrete Contractor:** W.E. O'Neil Construction **Concrete Contractor:** Trademark Concrete Systems, Inc.

Concrete Supplier: Catalina Pacific Concrete

**Other:** Trademark Concrete Systems, Inc., and Rios Clementi Hale Studios



The West Edge plaza, located at the intersection of Olympic and Bundy in Santa Monica, CA, is a new hub featuring unique concrete elements designed to create an inviting space for the surrounding retail, residential, and office buildings. This 200,000 ft<sup>2</sup> (18,580 m<sup>2</sup>) office, 600 apartment, and 90,000 ft<sup>2</sup> (8360 m<sup>2</sup>) retail development integrates meticulously crafted architectural concrete, including complex planter walls, decorative paving, and custom finishes. The project required detailed planning and collaboration to address challenges, such as constructing over a garage structure and achieving consistent finishes across diverse concrete elements. Foam fill was used to meet finish elevations of the plaza. Multiple concrete finishes and mixture designs added to the "artistic" design intent of using special seeded aggregates and cement colors in the alternating patterns. Maintaining saw-cut alignment was of utmost importance, especially between finishes. Specialty mixtures, including limestone cement, were used to enhance aesthetics and reduce carbon emissions, contributing to the plaza's role as a vibrant, creative community space.

#### Flatwork, Second Place

Polar Satellite Launch Vehicle Integration Facilities, Sriharikota, Andhra Pradesh, India

Nominator: ACI India Chapter Owner: Government of India, Department of Space, Indian Space Research Organisation (ISRO) Architectural Firm: Vista Architectural Solutions Engineering Firm: Tata Consulting Engineers Limited, Chennai General and Concrete Contractor: Shapoorji Pallonji and Company Private Limited Concrete Supplier: Shapoorji Pallonji and Company Private Limited



The Polar Satellite Launch Vehicle (PSLV) Integration Facilities project in Sriharikota, India, involves extensive concrete works for a mobile launch pad, a rocket assembly building, and modifications to an existing launch pad. Key features include a 1.5 km (0.9 miles) roller-compacted concrete (RCC) shear wall track with precision placement of bolts and sole plates, a 15-story RCC framed structure, and specialized concrete mixtures to withstand coastal conditions and high temperatures. Sustainability measures include the use of portland pozzolanic cement for improved durability, high-range water-reducing admixtures, and bipolar corrosion inhibitors to enhance concrete performance and reduce environmental impact.

#### Infrastructure, First Place

#### Mumbai Coastal Road, Mumbai, Maharashtra, India

Nominator: ACI India Chapter Owner: Brihanmumbai Municipal Corporation (BMC) Engineering Firm: Larsen & Toubro Limited General and Concrete Contractor: Larsen & Toubro Limited



The Mumbai Coastal Road project in South Mumbai, India, faced multiple challenges, including environmental sensitivity in marine ecosystems, technical complexity with unique span designs and construction methods, and regulatory hurdles requiring 19 clearances. Solutions involved adopting monopile technology, using advanced construction methodologies, such as precast and hybrid erection techniques, and establishing environmentally controlled concrete batching plants. Key ecological efforts included relocating live corals and recycling waste concrete, with the project recognized for its environmental achievements.

#### Infrastructure, Second Place

## Réseau Express Métropolitain, Montréal, QC, Canada

Nominator: ACI Québec and Eastern Ontario Chapter Owner: CDPQ Infra Architectural Firm: Provencher Roy + Associés Architectes Inc. (Provencher\_Roy) Engineering Firm: AECOM/AtkinsRéalis General Contractor: NouvLR Concrete Supplier: Unibéton and Béton Provincial Ltée Other: Béton Préfabriqué du Lac (BPDL) Inc., Lemay, Solmatech, and Rizzani de Eccher S.p.A.



Réseau Express Métropolitain rail network, spanning over 67 km (42 miles), connects major regions in Greater Montréal, QC, and includes elevated and underground segments with various concrete structures. The project required extensive durability planning to ensure a 100-year service life, using a range of concrete mixtures with high supplementary cementitious materials content to reduce heat release and carbon footprint. Two categories of concrete, including seven mixtures and several variants intended for cast-in-place and precast elements, were designed through an extensive laboratory experimental program to meet normative durability requirements based on actual exposure conditions throughout the network route. Advanced design and construction techniques, coupled with close collaboration among engineers and continuous client communication, facilitated the successful realization of this major infrastructure project.

#### **Submit an Entry**

If you are interested in nominating a project for the 2025 ACI Excellence in Concrete Construction Awards, the deadline for entries is April 29, 2025. ACI chapters and international partners may nominate one project in each of the eight award categories. Owners and project team members may also nominate for a nominal fee. Sponsorship opportunities are available. Visit **www.ACIExcellence.org** for more information.