Masters of Metal

Discover the 2025 Metal Design Award Winners

By Tristan Marks

Above: Photo courtesy Tara Wujcik/Brooks + Scarpa

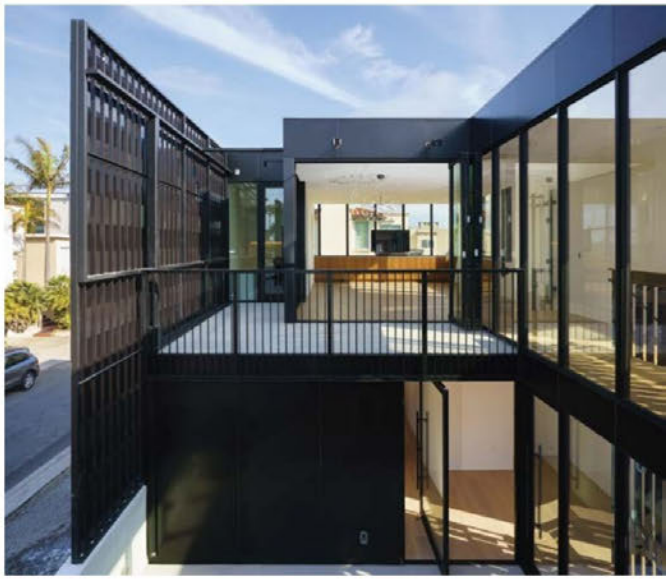
The annual Design Awards returns to celebrate the expertise and talents of architects, contractors, and manufacturers who work with metal as their primary canvas. Each year, this prestigious event unveils a tapestry of brilliance, honoring those whose ingenuity transcends boundaries and redefines the landscape of metal architecture.

Meet the Judges

Mindy Aust is the owner and principal architect of MA Architecture. With a passion for public architecture and a commitment to mentorship and community involvement, she has devoted her career to the thoughtful design of public spaces, including multiple award-winning federal government, public library, and university campus projects.

Richard W. Off is a senior architect from Hoffmann Architects + Engineers. He focuses on historic preservation and is an expert in traditional and modern facade, roofing, and window systems. He oversees architectural and engineering teams in completing numerous multi-million-dollar exterior investigation, rehabilitation, and restoration projects throughout the New York metropolitan area.

Tudor Vasiliu is an architect turned architectural visualizer and the founder of Panoptikon (thepanoptikon.com), an award-winning architectural visualization studio serving clients globally. With more than 18 years of experience, Vasiliu and his team help architects, designers, and property developers realize their vision through high-quality 3D renders, films, animations, and virtual experiences.



GRAND AWARD

Alma Switch House

Tight restrictions tend to cause repetitive designs, but the Alma Switch House in Manhattan Beach, Calif., breaks the mold with a compact, metal-clad design reimagining the possibilities for a narrow infill lot.

Designed by Brooks + Scarpa and completed in May 2024, the 362 m^2 (3,900 sf) residence stands on a constrained 9.1 x 27.4 m (30 x 90 ft) lot nestled into a hillside walk street. Strict local zoning codes heavily limit buildable area, height, and open space, often resulting in a dull range of residential designs. In contrast, the Alma Switch House stands out by balancing open space with sculptural form, wrapping its compact footprint in durable, low-maintenance metal cladding.

General contractor PD Construction installed approximately 232 m^2 (2,500 sf) of wall siding using Metal Sales Manufacturing Corp's EM15-22 profile and custom aluminum components. The metal panels—chosen for their clean lines and resilience in a coastal climate—form a skin that stands out from the neighborhood while delivering a long-lasting facade solution.

Beyond aesthetics, metal was critical to meeting the home's performance goals. Its durability helps reduce long-term maintenance in the salt-laden beachside environment, while its sleek appearance reflects the architect's minimalist vision.

Sustainability was a key priority for the clients, a family with three young children. The project integrates both passive and active design strategies, including solar panels and a Tesla Powerwall, to support net energy goals. These elements are seamlessly incorporated into the overall architecture without compromising the integrity of the exterior design.

The result is a distinctive residential design without violating site constraints, harnessing the versatility of metal to craft a modern beachside home with both lasting presence and low environmental impact. MA

Size: 362 m^2 (3,900 sf)
Location: Manhattan Beach, Calif.
Architect: Brooks + Scarpa
General Contractor: PD Construction
Metal Installer(s): PD Construction
Manufacturer: Metal Sales Manufacturing Corp.

Photos courtesy Tara Wujcik/Brooks + Scarpa

Rotortech Aviation

Rotortech Services, Inc. expanded its aviation facility in West Palm Beach, Fla., with a 920-m² (9,899-sf) addition built entirely using a pre-engineered metal building system. Designed and constructed by Ahrens Companies, the project demonstrates how metal building systems can deliver efficiency, performance, and seamless integration—key requirements for a fast-paced aviation environment.

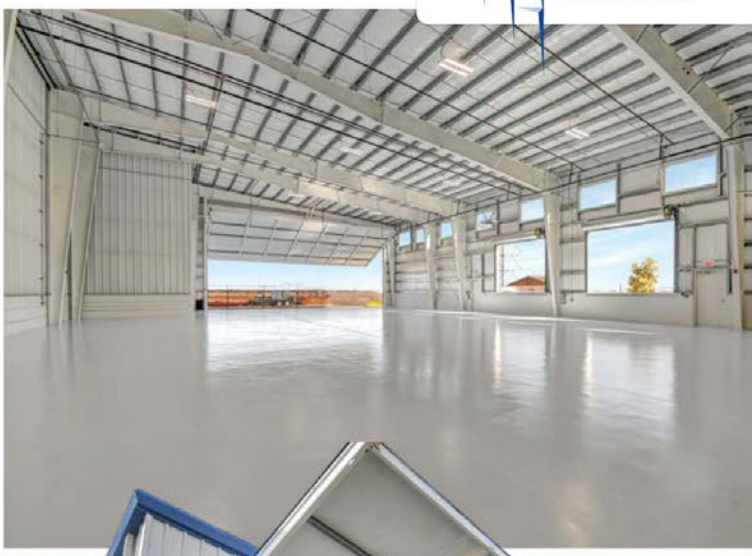
The building addition, located adjacent to Palm Beach International Airport, supports Rotortech's growing operations with dedicated space for aircraft maintenance and equipment storage. Speed of construction and cost control were critical, making a metal building system the ideal solution. The pre-engineered structure allowed for rapid assembly while aligning aesthetically with the existing facility.

The system incorporates a combination of 24- and 26-gauge panels from Trident Building Systems: 406-mm (16-in.) Surlok Roof Panel (24 ga); R Roof Panel (24 ga); and R Wall Panel (26 ga).

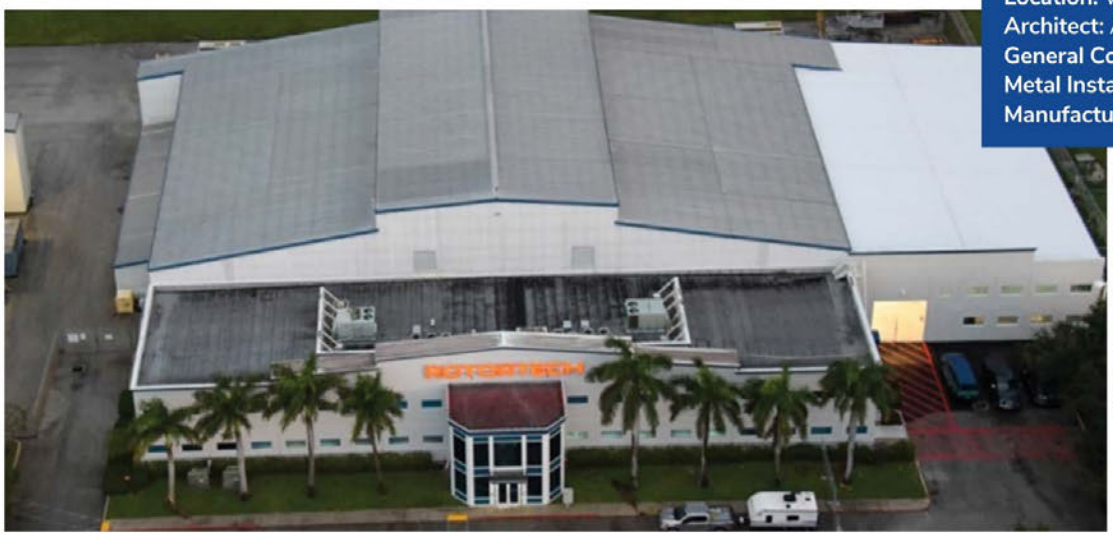
The roof and wall components feature durable finishes in Kynar Regal White and S.P. Polar White, with Regal Blue and Galvalume accents to match the existing facility and enhance curb appeal. The consistent use of metal materials across both the new and original structures ensures architectural cohesion and long-term durability in a high-performance setting.

Functional requirements were also met easily using the metal system's flexibility. Oversized roll-up doors and windows optimize light and access, while a custom hydraulic power lift door adds heavy-duty utility for large aircraft. Thanks to the metal building system's adaptability, these elements were easily integrated.

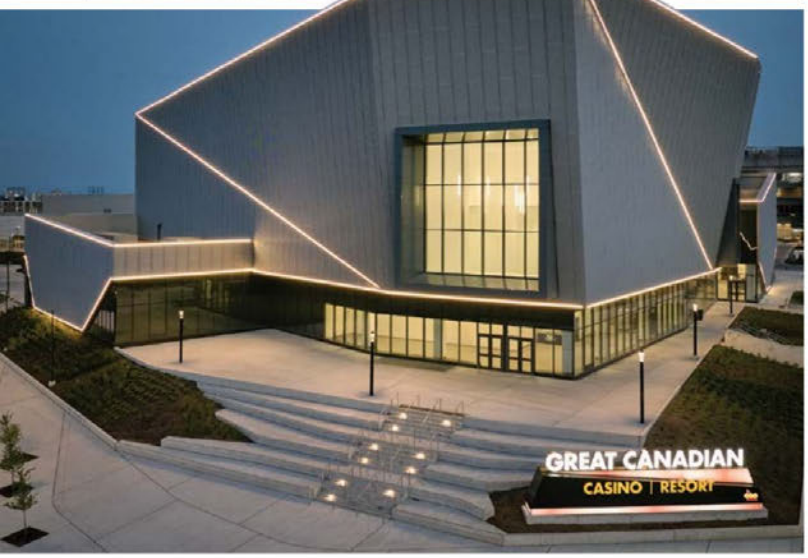
By using a complete metal building solution, Ahrens Companies delivered a fast-tracked expansion tailored to Rotortech's operational needs, proving once again that metal systems are an ideal choice for aviation facilities where precision, speed, and structural integrity are paramount. MA



Size: 920 m² (9,899 sf)
Owner: Rotortech Services
Location: West Palm Beach, Fla.
Architect: Ahrens Companies
General Contractor: Ahrens Companies
Metal Installer(s): Ahrens Companies
Manufacturer: Trident Building Systems



Photos courtesy Virtuals 1, Inc.



Size: 6,503 m² (70,000 sf)
Owner: Great Canadian Gaming Corporation
Location: Etobicoke, Ontario, Canada
Architect: CGL Architects
General Contractor: Great Canadian Gaming Corporation
Metal Installer(s): Bothwell Accurate
Manufacturer: Norbec Architectural Inc.

Photos by James Morley

Woodbine Theater at Great Canadian Casino Resort Toronto

At the new Woodbine Theatre in Etobicoke, Ontario, Canada, insulated metal panels (IMPs) were the cornerstone of a building envelope designed to meet rigorous fire, thermal, and aesthetic performance standards—all within a tight construction timeline.

Completed in May 2024, the 6,503 m² (70,000 sf) venue is part of the Great Canadian Casino Resort Toronto. Designed by CGL Architects and built by Great Canadian Gaming Corporation, the project demanded materials capable of satisfying strict fire codes, supporting fast-track construction, and delivering a visually compelling exterior. Norbec's Noroc-L IMPs met those needs on all fronts.

The building envelope features 152-mm (6-in.) thick, fire-rated mineral fiber core panels, providing a two-hour fire rating. These panels, supplied by Norbec Architectural Inc. and installed by Bothwell Accurate, offered critical advantages: energy efficiency, structural integrity, speed of installation, and reliable fire resistance.

Aesthetic and technical requirements added complexity. The panels included a smooth finish on both faces, with the interior in 26-gauge Imperial White steel and the exterior in 22-gauge steel finished in a custom champagne bronze Micro Rib profile. Panels were manufactured in lengths up to 14 m (46 ft), requiring precise handling and coordination, especially where decorative mesh elements were incorporated into the facade.

Beyond performance, the use of IMPs supported the project's sustainability goals. The insulated panels improve thermal efficiency, reduce energy consumption, and support long-term durability with minimal maintenance. As steel is fully recyclable, the system contributes to a lower environmental impact over its lifecycle.

The result is a sleek, high-occupancy venue that balances function, code compliance, and visual identity. The use of IMPs allowed the construction team to stay on schedule while achieving performance standards critical to a modern entertainment facility.

By integrating energy-efficient, fire-rated insulated metal panels into every aspect of its exterior envelope, the Woodbine Theatre demonstrates how metal systems can be leveraged for speed, safety, and sustainability, all without sacrificing design. MA

Humboldt Park Wellness Center

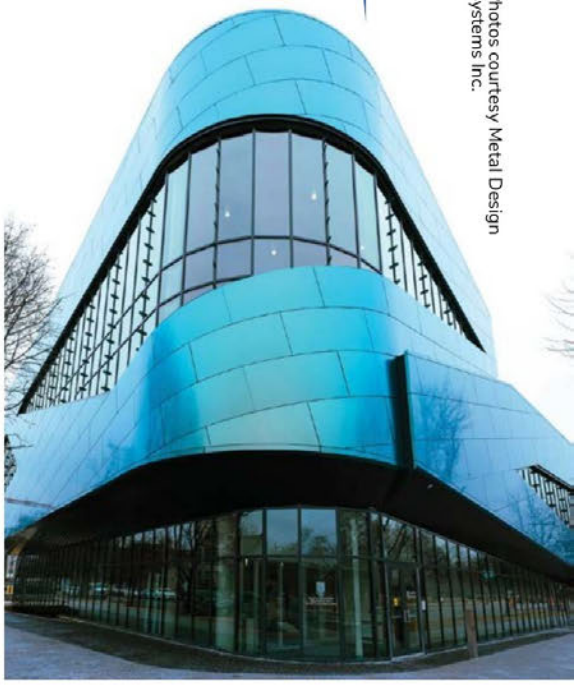
At the Humboldt Park Wellness Center in Chicago, Ill., metal composite material (MCM) plays a defining role in both the design language and performance of the building envelope. Designed by JGMA and constructed by All Construction, the project incorporates 2,230 m^2 (24,000 sf) of ALUCOBOND 4 mm (0.16 in.) FR Core aluminum composite panels (ACM), used in both solid and perforated applications.

A custom, color-shifting finish was applied to the panels, selected for its ability to respond dynamically to light and movement throughout the day. This finish was used on both the primary wall panels and double-sided perforated screen panels, adding texture and depth to the facade. The soffits feature a dusty charcoal color, offering a contrast to the building's geometry.

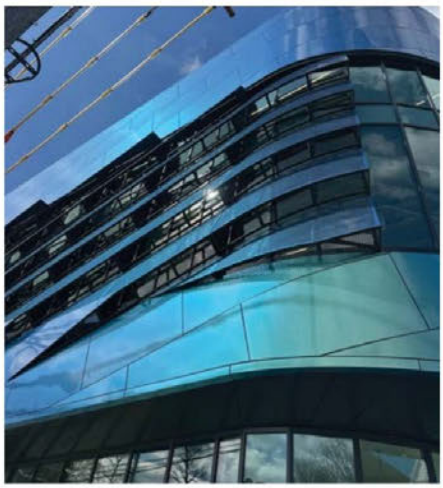
The decision to use ACM was driven by the material's ability to accommodate the building's complex forms. Metal Design Systems Inc. fabricated the panels, and Tuschall Engineering installed them. Coordination between the architect, fabricator, and installer played a key role in executing the design intent.

The Humboldt Park Wellness Center demonstrates how MCM can support both expressive architecture and practical construction demands. In this case, metal panels are not only a cladding system but also a central part of the building's visual identity and functional design. MAL

Owner: Humboldt Park
Location: Chicago, Ill.
Architect: JGMA
General Contractor: All Construction
Metal Installer(s): Tuschall Engineering (Installer), Metal Design Systems Inc. (Fabricator)
Manufacturer: ALUCOBOND



Photos courtesy Metal Design Systems Inc.



Forty Acres Fresh Market

The Forty Acres Fresh Market transforms a long-vacant Salvation Army building into a new retail and community anchor. Designed by architecture firm Latent, the $5-million adaptive reuse project reimagines the 1,115-m² (12,000-sf) structure, including a new rainscreen system using metal not only as cladding but as a statement.

The design brief called for a bold visual language to embody the values of Forty Acres Fresh Market while staying within budgetary and construction constraints. To that end, the design team used 251 m² (2,700 sf) of Kingspan's Morin Matrix MX-1 rainscreen panels, supplied in 22-gauge Galvalume. The color palette—Evergreen Patina Green, Dove Gray, and Chromium Gray—abstractly references agricultural plots, creating a pattern symbolic of the "forty acres" which form the project's namesake.

Installed by Tuschall Engineering, Inc., the metal panels wrap the primary volumes of the renovated building, introducing texture, depth, and rhythm across what had been a nondescript masonry exterior. The use of standard color options and pre-engineered rainscreen modules helped control costs while allowing for nuanced geometric expression through panel inclination and layout.

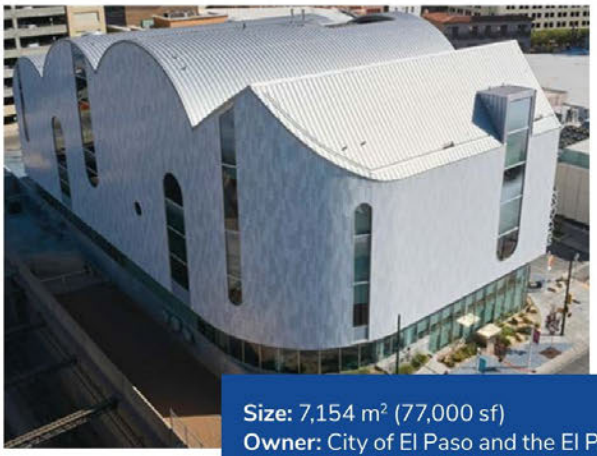
The retrofit approach underscores metal's value in contemporary renovations, especially where visual identity and long-term durability are key. Metal's ability to bring a new architectural language to a reused structure was central to the project's success, honoring the building's history while pointing it toward the future.

Beyond aesthetics, the project also prioritizes sustainability. By adapting the existing structure rather than rebuilding, the team reduced material waste and energy consumption while preserving neighborhood heritage. The project adds momentum to the renewal of the Chicago Avenue corridor, using metal not just as a surface treatment, but as a statement of reinvestment and resilience. MA

Size: 1,115 m² (12,000 sf)
Owner: West Side Health Authority
Location: Chicago, Ill.
Architect: Latent
General Contractor: Millhouse Construction
Metal Installer(s): Tuschall Engineering, Inc.
Manufacturer: Kingspan

Photos courtesy Latent

La Nube STEAM Discovery Center (Roof)



Photos by Brian Wancho Photography

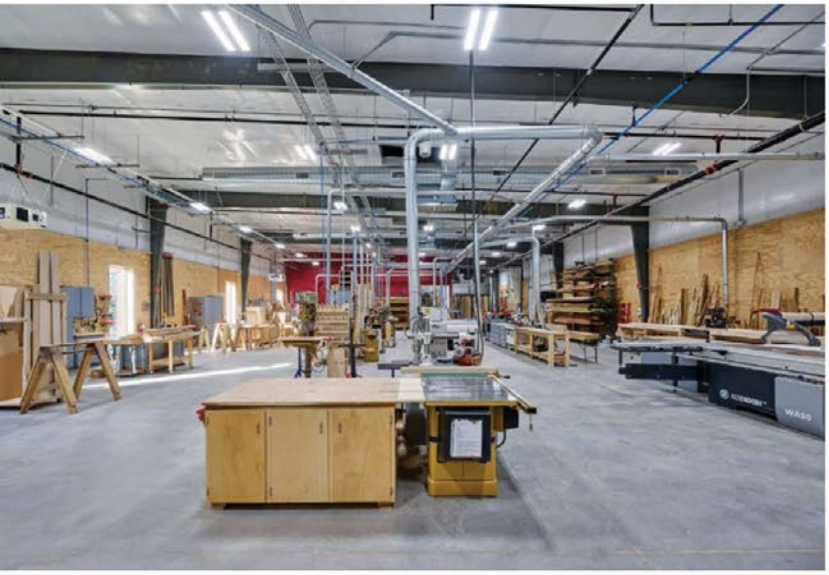
Size: 7,154 m² (77,000 sf)
Owner: City of El Paso and the El Paso Community Foundation
Location: El Paso, Texas
Architect: Snohetta Architects
General Contractor: Jordan Foster Construction
Metal Installer(s): Commercial Roofing Systems
Manufacturer: ATAS International, Inc.

In downtown El Paso, Texas, a sweeping new structure rises into the skyline. La Nube—Spanish for "the cloud"—is a STEAM discovery center designed to embody the spirit of curiosity and creativity. Its name is more than just a metaphor. Snohetta Architects, tasked with bringing the City of El Paso's vision to life, sculpted a dynamic, cloudlike form made tangible through the use of curved and straight standing seam metal panels.

To achieve the building's geometric, curving contours, the design team turned to commercial roofing systems and metal panel supplier ATAS International, Inc. More than 4,460 m² (48,000 sf) of steel roofing was installed across the structure, using two primary systems: 2,508 m² (27,000 sf) of 38 mm (1.5 in.) Field-Lok (FLM165) panels and 1,988 m² (21,400 sf) of Curved Field-Lok (FLX165) panels. Both were fabricated from 24-gauge steel, finished in a Titanium 70 percent polyvinylidene difluoride (PVDF) paint that offers subtle reflectivity and long-term color performance under the intense Texas sun.

The curved panels were essential to achieving the 3D form of the building envelope, helping the roof flow seamlessly into vertical wall surfaces. At 419 mm (16.5 in.) wide, the panels were precisely formed and installed to match the complex geometry of the design, contributing both to the building's futuristic aesthetic and to its resilience in a challenging climate.

Metal was selected not just for form but for function. With high durability and minimal maintenance needs, the steel panels ensure long-term performance. Sustainability was also a key factor: the roof panels contain recycled content and are 100 percent recyclable at the end of their life. Their high solar reflectance index (SRI) value of 68.60 helps mitigate urban heat gain, reducing interior cooling loads and contributing to the building's low operational carbon footprint. MA



Dobson Pipe Organ Builders

When Dobson Pipe Organ Builders lost their original shop to fire, the challenge was not just to rebuild—it was to reimagine. The Iowa-based company needed a facility with a design that honored its artisanal roots while supporting the technical demands of modern organ making. Designed by ASK Studio, the new 1,486-m² (15,998-sf) building in Lake City turns to the modular logic and material clarity of a pre-engineered metal building (PEMB) to tell its story.

The structure reads like a haiku in steel. Line one is the primary grid—a simple, cost-effective PEMB shell from Chief Buildings that establishes a clean, column-free interior for fabrication and assembly. Line two is the entry sequence: a sculptural canopy of warm wood and standing seam metal that evokes the elegance of an organ case. Line three—both literally and figuratively—is the erecting room: a soaring volume pushing beyond the base grid to accommodate the height of assembled pipes, mirroring the scale of cathedral interiors.

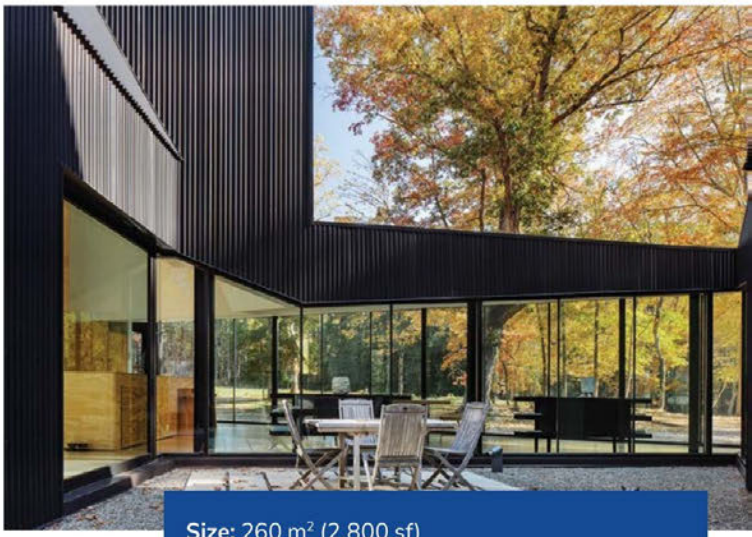
Metal was central to the project's function and meaning. Structurally, the steel frame provides unobstructed spans and high ceilings critical for moving, testing, and tuning large organ components. The building is clad with 1,446 m² (15,862 sf) of CS/AP exterior panels and nearly 1,486 m² (16,000 sf) of mechanically seamed construction (MSC) standing seam roofing—both selected for their durability, efficiency, and visual alignment with the materials of the craft.

Beyond aesthetics, the metal systems also deliver high-performance sustainability. The building's cool roof, fabricated from 24-gauge steel, reflects solar heat and reduces mechanical cooling loads in Iowa's varied climate. A high-performance insulation package and vapor barriers further enhance energy performance. And with steel's recyclability and long lifespan, the project reduces both raw material use and long-term environmental impact. MA

Size: 1,486 m² (15,998 sf)
Owner: Dobson Pipe Organ Builders
Location: Lake City, Iowa
Architect: ASK Studio
General Contractor: Badding Construction
Metal Installer(s): OG Steel
Manufacturer: Chief Buildings

Photos by Cameron Campbell/courtesy Mechanically Seamed Construction

Steeplechase House



Tucked into a 26-ha (65-acre) wooded site in Hillsborough, N.C., the 260-m² (2,800-sf) Steeplechase House embraces the landscape rather than reshaping it. Designed by Brooks + Scarpa and built by Tonic Design & Construction, the project preserves more than 98 percent of the original terrain—an intentional design strategy to emphasize ecological harmony. With this light touch, the home's ribbed single-skin metal panels serve both as a durable envelope and a defining architectural gesture.

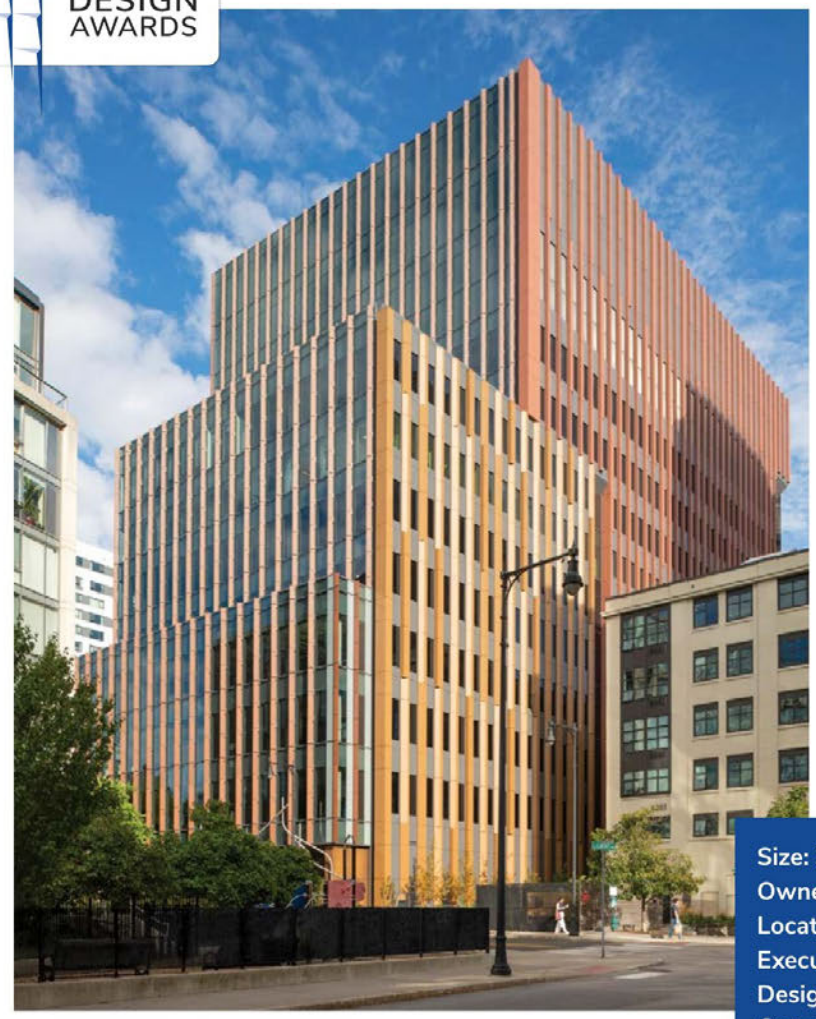
For the wall and roof cladding, the team selected corrugated metal panels from ATAS International, finished in a high-performance Kynar coating. The ribbed profile introduces rhythmic texture to the building's low-slung volumes, creating dynamic shadow play throughout the day. A total of 390 m² (4,200 sf) of paneling wraps the home, forming a cohesive skin that resists the elements while visually complementing the surrounding forest.

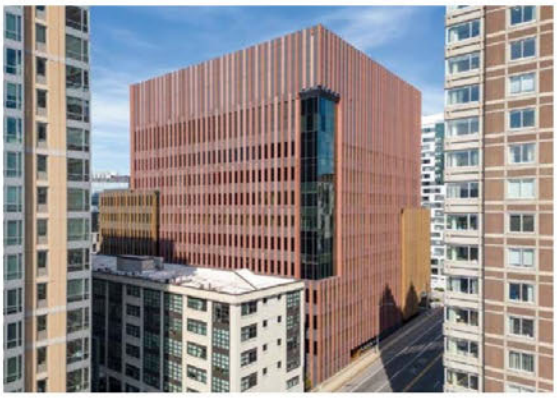
The choice of single-skin metal panels was guided by economic and environmental considerations. Ribbed steel's low upfront cost, combined with long-term durability and virtually no maintenance, made it a smart investment. However, the material also reinforced the project's sustainability goals. Unlike wood or fiber cement, metal offers longevity without chemical treatments, and its recyclability reduces its overall environmental impact. The Kynar finish further contributes to performance, offering high resistance to UV exposure, corrosion, and fading.

Beyond durability, the metal skin helps the house meet broader goals of health and equity. By streamlining construction and reducing upkeep, the design supports a low-maintenance lifestyle, reducing costs and interventions over time. Inside, expansive windows and skylights flood the space with daylight, minimizing energy demand and reinforcing the connection between indoors and out. MA

Size: 260 m² (2,800 sf)
Location: Hillsborough, N.C.
Architect: Brooks + Scarpa
General Contractor: Tonic Design & Construction
Metal Installer(s): Tonic Design & Construction
Manufacturer: ATAS International, Inc.

Photos by Mark Herboth





Photos by Anton Grassl

Size: 34,840 m² (375,000 sf)
Owner: DivCo West
Location: Boston, Mass.
Executive Architect: Jacobs
Design Architect: Ennead Architects
General Contractor: John Moriarty & Associates
Metal Installer(s): Ipswich Bay Glass Company
Manufacturer: Pure + FreeForm

Parcel U

In the heart of Boston's Seaport District, Parcel U reimagines the intersection of science, sustainability, and material expression. Designed by Ennead Architects with Jacobs as executive architect, the 34,840-m² (375,000-sf) life sciences facility is wrapped in more than 6,968 m² (75,000 sf) of smooth, single-skin aluminum panels from Pure + FreeForm. These custom-finished panels evoke the richness of terracotta and weathered steel, merging earthy aesthetics with high-performance metal technology.

The facade features two bespoke finishes in a baguette profile: a deep terracotta hue and a warm rust tone. While the colors echo traditional masonry, the panels themselves are made from 3 mm (0.12 in.) single-skin aluminum, which was chosen for being lightweight, recyclable, and engineered to endure. Paired with true terracotta elements at the building's entrance, the panels complete a unified architectural language that feels both grounded and forward-looking.

Metal was selected for its distinct advantages over heavier, more maintenance-intensive materials. The aluminum panels contain at least 20 percent post-consumer recycled content and are fully recyclable at the end of life. Their durable finishes are volatile organic compound (VOC)- free and resistant to UV exposure, ensuring that color and integrity remain intact in Boston's variable climate. The lightweight nature of the panels also reduces structural load, simplifies installation, and cuts material waste on site—all contributing factors to Parcel U's LEED Platinum certification.

The smooth surface and subtle reflectivity of the panels elevate the building's sculptural expression, particularly along its vertical pilasters. These rhythmic elements frame the structure, capturing and modulating light throughout the day. By replacing full terracotta cladding with custom-finished aluminum, the design team achieved a similar visual warmth with significantly less environmental and structural impact. MA

Private Residence in Eastern Pennsylvania

In a quiet corner of Pennsylvania, a new private residence proves that forward-thinking sustainability starts from the top down. Designed by studio26 and topped with ATAS International's Dutch Seam panels, the home integrates renewable energy into its very framework, thanks to the strategic pairing of standing seam metal roofing and solar technology.

The homeowners selected a standing seam metal roof not only for its clean, modern aesthetic but for its unmatched compatibility with solar power systems. Spanning 793 m^2 (8,532 sf) of .040 aluminum in a Char Brown finish, the Dutch Seam panels provided a secure, penetrations-free platform for crystalline photovoltaic (PV) panels. The raised seams made it easy to mount solar hardware without compromising the roof membrane, ensuring long-term weathertightness and system performance.

Sustainability was a guiding principle in every decision. Unlike traditional shingle systems, which often require replacement before a solar array reaches end-of-life after around 25 years, metal roofing avoids unnecessary re-roofing costs, waste, and labor.

This project blends a modern metal roof with renewable energy infrastructure, showing homeowners how to make smart material choices that support energy independence, reduce operational emissions, and ensure their house is built to last. MA

Photo by Eric Samley/ATAS International

Photo courtesy Studio 26 Homes

Size: 788 m^2 (8,482 sf)
Location: Allentown, Penn.
Architect: studio26
Metal Installer(s): Munn Roofing and Sheet Metal
Manufacturer: ATAS International, Inc.

Photo courtesy Studio 26 Homes