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## \* Feast Your Eyes:

The Renovated Warehouse Food Hall Isn't as Old as You Think; Behind Its Brick Cladding Is a Successful Act of Human-scale Place-making  
+ More Hospitality & Entertainment Projects

\* **TREND ALERT:**  
the metaverse

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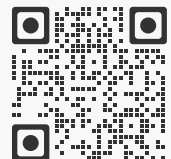


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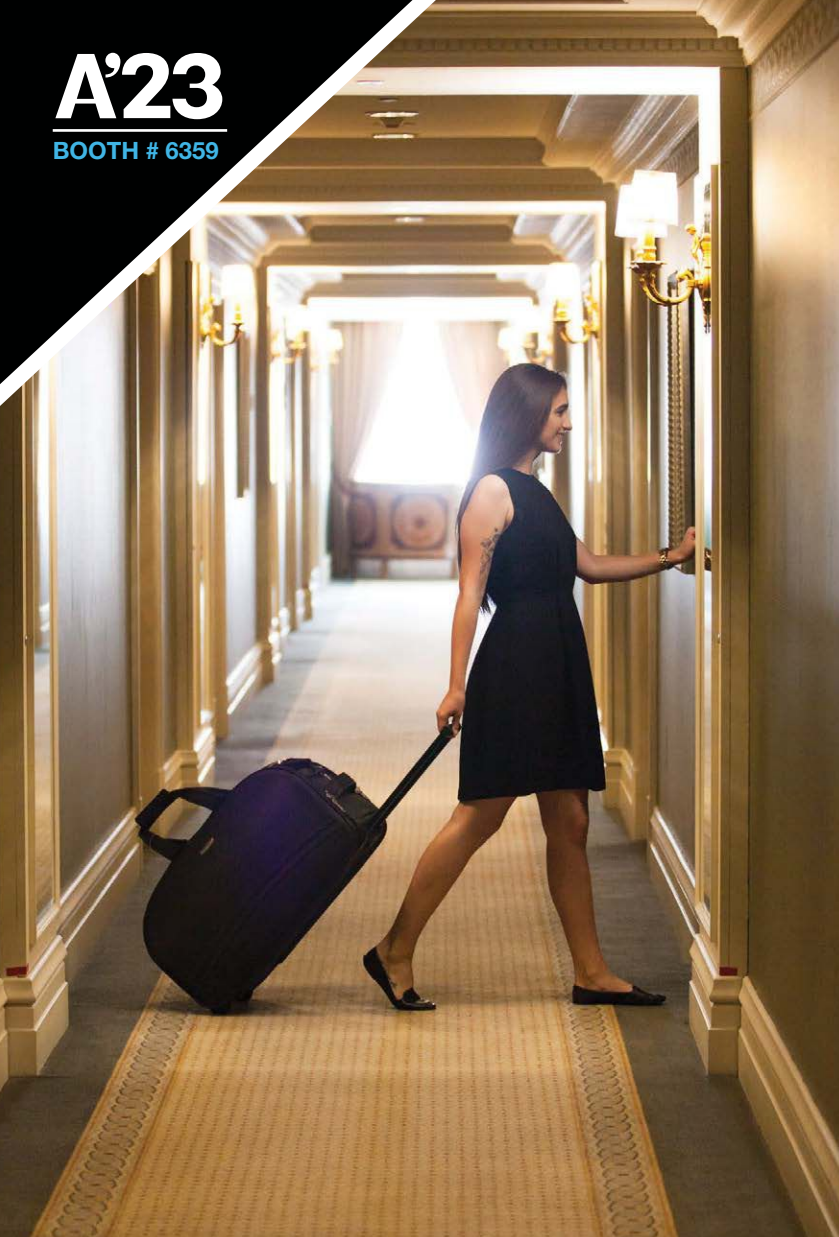


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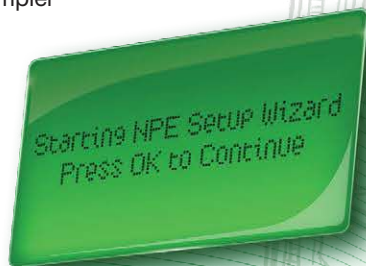
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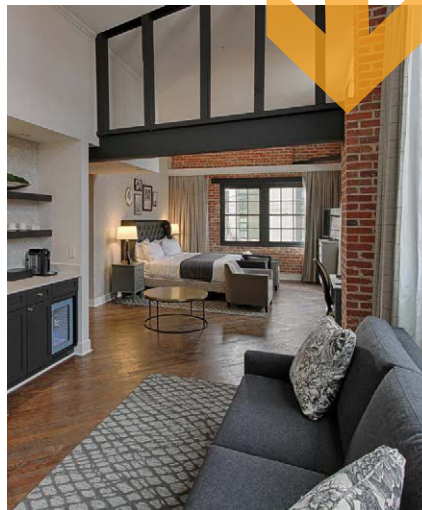


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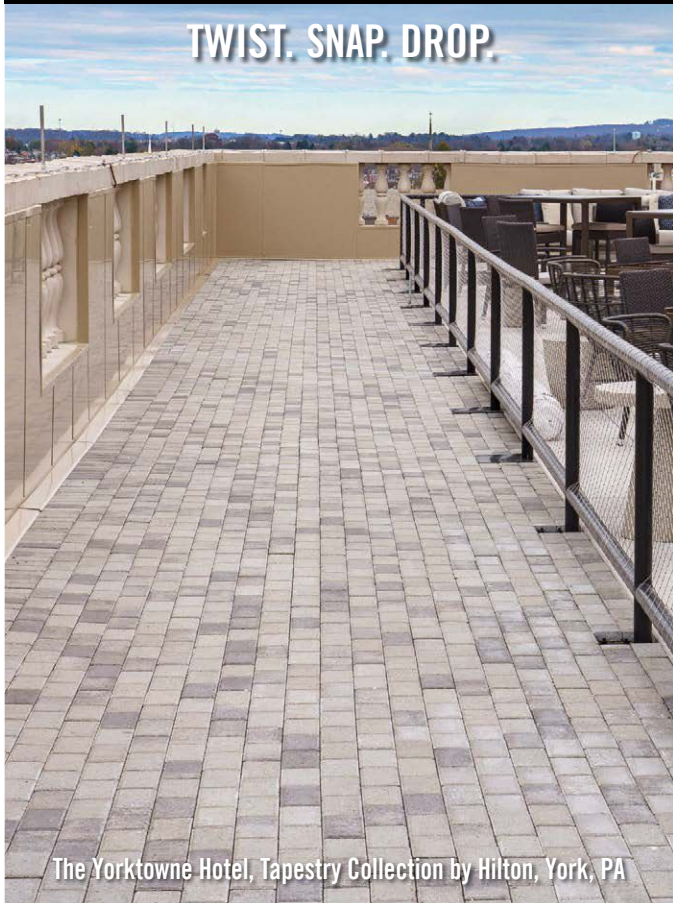
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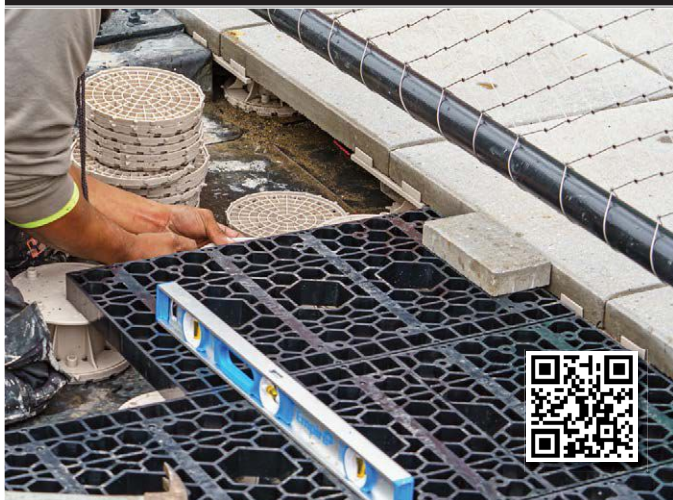


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## PUBLISHER

**JOHN RIESTER**

[john@retrofitmagazine.com](mailto:john@retrofitmagazine.com)

## ASSOCIATE PUBLISHER/EDITORIAL DIRECTOR

**CHRISTINA KOCH**

[christina@retrofitmagazine.com](mailto:christina@retrofitmagazine.com)

## DIRECTOR OF OPERATIONS

**BECKY RIESTER**

[becky@retrofitmagazine.com](mailto:becky@retrofitmagazine.com)

## CONTRIBUTING EDITOR

**JIM SCHNEIDER**

## ART DIRECTOR

**VILIJA KRAJEWSKI**

[vilijak@comcast.net](mailto:vilijak@comcast.net)

## CIRCULATION MANAGER

**LYN URE**

[lyn@retrofitmagazine.com](mailto:lyn@retrofitmagazine.com)

## DIGITAL DESIGN DIRECTOR

**MARIE MADRON**

## WEB ENGINEER

**DEREK LEEDS**

## SOCIAL MEDIA MAVEN

**ROBIN GRABER**

## ADVERTISING SALES

**JOHN RIESTER**

[john@retrofitmagazine.com](mailto:john@retrofitmagazine.com)

(919) 641-6321

**BARRETT HAHN**

[barrett.hahn@gmail.com](mailto:barrett.hahn@gmail.com)

(919) 593-5318

**BETH EMERICH**

[beth@retrofitmagazine.com](mailto:beth@retrofitmagazine.com)

(781) 710-4745

## EDITORIAL ADVISORY BOARD

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## MetaWhat?

I distinctly remember not being able to wrap my head around Twitter when it first launched. It must've been around 2007 and I was sitting in my office with Jim Schneider, *retrofit*'s contributing editor, who then was senior editor of another publication I managed. We were chatting about Twitter. "But why?" I remember asking him. "Who is going to read 140 characters someone is randomly spouting on the internet? I just don't get it."

Recalling that memory makes me laugh now because Twitter has become part of my daily work activities (follow @retrofitmag for the latest news, articles and products we post on our website!). I even find myself personally checking Twitter regularly—mostly to gauge the temperature of people's reactions to certain news. For example, during the early days of COVID lockdown, the voices of regular people in other parts of the country helped me better understand—and anticipate—what was coming my way in terms of illness and safety precautions. Thinking about the "old" days like this helps me open my mind to the metaverse, yet another one of those internet "things" that will likely be a part of my life soon.

It's a fun coincidence that Jim Schneider again is explaining this new-fangled phenomenon to me and you in "Trend Alert", page 64. Defined as an "un-flattening of the internet" by Andrew Lane, cofounder of digby, a technology and innovation consultancy for A&D, the metaverse potentially will impact how architects and other construction industry professionals do their jobs.

"Over the next 10 years, we'll see important evolutions in how we think about design for integration of physical and digital spaces," Lane predicts in the article. "This will mean more firms looking to bridge the divide with 'phygital' [physical-digital] approaches, firms using 3D spatial environments to help with the planning and procurement processes, data collection and more. The opportunities are only beginning to make themselves apparent. Along the way, the current limitations of seamless access—goggles as we know will improve and even disappear—and computing power will be solved and open the door to a truly seamless human experience that effortlessly blends the physical and the digital."

The metaverse sounds exciting but, as a Gen-Xer, constantly teetering between technology and old-school ways of doing things, I can't help but worry just a tiny bit that the metaverse will give everyone an excuse to stay home in bed and never interact with other living, breathing humans again.

I then remind myself of something the facility director of my alma mater told me when I wrote a story about the college's retrofit from central steam heat to individual boilers with a building automation system. (Read the story at [retrofitmagazine.com/private-college-converts-steam-central-heating-individual-boilers-building-automation-system](http://retrofitmagazine.com/private-college-converts-steam-central-heating-individual-boilers-building-automation-system).) He told me today's maintenance staff is not the staff of my college experience (20-cough-some-years ago). These are men and women who grew up with technology and played Nintendo and PlayStation, which innately prepared them for today's IoT era. I now give video games and youngsters with tablets more credit while trying not to worry about a future I can't even begin to imagine.

However, I know nothing beats the experience of actually physically traveling to a luxurious hospitality and entertainment venue, like the beautiful facilities featured in this issue, and immersing yourself in total relaxation. At least nothing beats that feeling yet ...

### CHRISTINA KOCH

Associate Publisher/Editorial Director  
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## CONTRIBUTING WRITERS



Portland, Ore.-based freelance design journalist, critic and architectural photographer **Brian Libby** digs into the Warehouse Food Hall in downtown Boise, Idaho, which could be mistaken for a rehab of a 100-year-old structure. Instead, this reclamation project involves commercial architecture less than 20-years old. The story, which appears as our "Cover Story", page 16, uncovers how the developers brought the building and its neighbors back to what their block had been generations ago.



Seattle's Fairmont Olympic Hotel has been a beloved landmark for close to a century. Local architecture firm MG2 recognized the importance of preserving the hotel's rich heritage while updating its timeless charm during the hotel's recent restoration. In "Component" page 38, **Shannon Suess**, an award-winning interior and hospitality designer who has dedicated more than 25 years of her career to crafting world-class destinations, describes the meticulous work that went into preserving historic details from the hotel's bygone era.



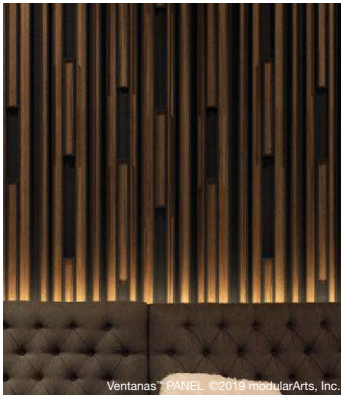
**Chris Wasney**, FAIA, is a founding principal of CAW Architects Inc. and directs the firm's higher-education and historic-preservation work, including the recent revitalization of The Guild Theatre in Menlo Park, Calif. Read in "Historic", page 44, how the design team met a key goal for its client by making The Guild Theatre a suitable venue for larger, well-known artists who value performing in a smaller setting—an industry term known as "underplay."



**Marty E. Gibbs**, P.E., LEED GA, is senior vice president and general manager of Operations in Knoxville, Tenn., for construction-management and real-estate development firm The Christman Company. The Christman Company served as construction manager during the transformation of the 1915 Asheville Supply and Foundry Company into a boutique hotel, now called The Foundry Hotel. The 87-room, 80,258-square-foot luxury property in North Carolina is featured in "Transformation", page 50.



**Wesley J. Palmisano** is founder of Impetus, a construction service provider that recently completed work on New Orleans' Hotel Saint Vincent, a \$22.5 million restoration of a historically designated, five-building campus that once was an orphanage. Read in "Transformation", page 56, how the 74-room boutique hotel once again serves its neighborhood, among the Greek Revival and Italianate-style mansions of the city's charming Lower Garden District.



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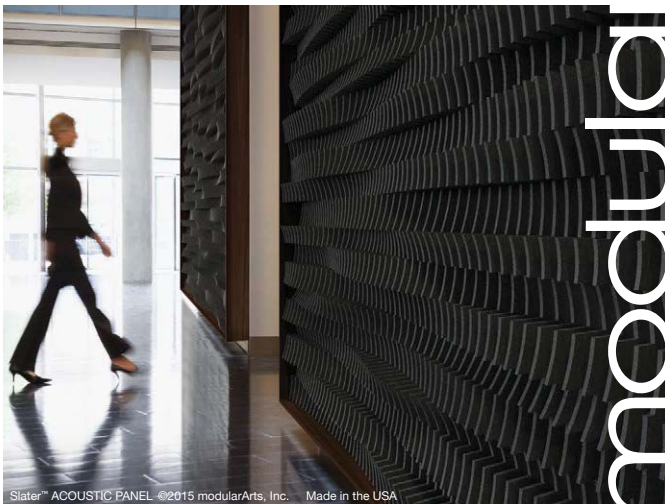
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# 21st CENTURY REHAB, 20th CENTURY FEEL

The Renovated Warehouse Food Hall Isn't as Old as You Think; Behind Its Brick Cladding Is a Successful Act of Human-scale Place-making

WRITTEN BY | BRIAN LIBBY







It's one thing to give a century-old warehouse new life. Whatever difficulties may accompany renovation, the exposed brick walls and wood floors create atmosphere, and the building's age means it comes with a story to tell.

At first glance, the Warehouse Food Hall in downtown Boise, Idaho, could perhaps be mistaken for just such a rehab, 100 years or more in the making.

After all, it's located in downtown Boise's National Register-listed South Eighth Street Historic District, home to many early-1900s buildings.

Make no mistake: The Warehouse Food Hall represents a true transformation, though not one involving a century-old warehouse. Instead, this reclamation project involves commercial architecture less than 20-years old. "The entire block was built around 2005," explains Rob Gerbitz of Wisconsin-based Hendricks Commercial Properties, the Warehouse Food Hall's owner and developer. "But the reason we bought it is we wanted to bring it back to what that block was generations ago."

**THE WAREHOUSE FOOD HALL BUILDING** was part of a redevelopment surge in the late 1990s and 2000s, after completion of the Boise Centre began bringing large convention crowds to the neighborhood.





TO CREATE SOMETHING AUTHENTIC-  
FEELING—THAT WAREHOUSE  
AMBIANCE WITHOUT THE WAREHOUSE  
—MATERIALS MATTERED.





Since its completion, the public has flocked to the food hall's 20 different eateries and bars across some 20,000 square feet. It has been redeveloped along with two adjacent properties on the same block: the Treefort Music Hall from a former Office Depot store and the Bodo Cinema, which refashions a Regal Edwards Boise chain's second-run multiplex (its theaters occupy the floors above the Warehouse Food Hall).

## MILLENNIAL ROOTS

Although today tourists and locals flock to downtown Boise's renovated historic buildings, in the 1960s and '70s they were becoming an endangered species. "Downtown Boise was doing what a lot of downtowns were doing: trying to build the competitor to the suburban mall," Gerbitz explains. "They started tearing down buildings and adding parking lots," to the department stores that were left to create suburban-style retail. "But the vast majority of them didn't work. The architecture was suspect at best. It was basically just a bunch of big boxes that had retailers in them."

The Warehouse Food Hall building was part of a redevelopment surge in the late 1990s and 2000s, after completion of the Boise Centre began bringing large convention crowds to the neighborhood. But the setting was still lackluster, with a highway couplet and an array of large-scale buildings leaving few options for those seeking a smaller-scale sense of place. By the time COVID arrived, these businesses were already vulnerable. "This area was a little sluggish in terms of pedestrian traffic. A lot of the tenants were leaving," Gerbitz says. It's a story that transcends Boise, as brick-and-mortar retailers have fought a losing battle to online shopping.

It didn't help that the existing building, despite its relative newness, seemed to turn its back to historic Eighth Street. The adjacent theater felt like a fortress, its upper floors almost entirely windowless and its façade pushed to the edge of the block, creating little visual interest and no room for outdoor seating. "The façade didn't quite have the character and the charm that I think Eighth Street deserves," says James Marsh, a principal at CSHQA, the project's architect. "Hendricks wanted to restore the integrity of the urban fabric in that district."

## CREATING PEOPLE-FRIENDLY SPACES

The desire to restore the urban fabric's integrity is why this nearly block-sized building had to be more than renovated. It needed to





be redesigned at human scale. While there was no old building to work with, the design team from CSHQA tried to consider the qualities that made these renovated early-20th century warehouses and storefront buildings beloved, be it the materials they were made of or how they were proportioned. But the true test would come in how these new spaces—the Warehouse Food Hall’s ground-floor setting or the Treefort Music Hall’s roof deck—attracted the public.

The food hall creates energy and fun by doubling down on small businesses and choice with shared seating for an array of smaller food-and-drink establishments. It not only offers variety, but creates an opportunity for small food-and-drink entrepreneurs, including food-truck operators looking to migrate to brick-and-mortar spaces, with not only the main tenant spaces available but a temporary pop-up space.

“It’s really meant to be a gathering place,” Gerbitz says. “We have great variety. You can go with a party of four and all

of you can eat something different, from barbecue to lobster to Asian. You’re seeing very young entrepreneurs that are just starting their journey and what they’re trying to do. That’s a pretty fun thing to watch.” The Warehouse Food Hall also collaborates with the adjacent venues; the Treefort Music Hall curates a succession of deejays and live bands to appear in the food hall common areas.

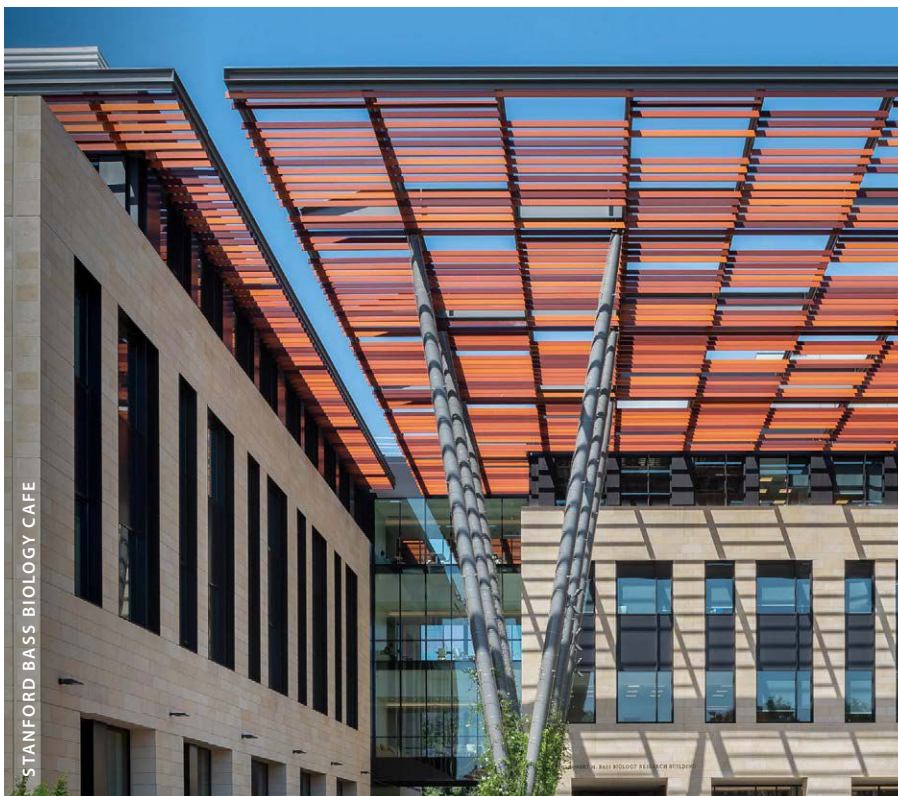
The design combines aspects of a historic warehouse, particularly its brick cladding and wood floors, with traditional mixed-use retail buildings of that same era with classical proportions, base-middle-top division. The architects also broke up the monolithic mass of the existing buildings by creating a varying series of façade depths and alternating colors, which creates the sensation of multiple buildings along the block but had a functional purpose: Pushing out the façade in some spots created room for ventilation shafts for the Warehouse Food Hall’s many kitchens. In addition, the developer and architects were thinking from the

start about how they could create more indoor-outdoor permeability, including features present today, like glass garage doors for storefront retail that can open and disappear and the rooftop bar atop the adjacent Treefort Music Hall.

Inside, CSHQA broke down interior walls wherever possible to make it easy for customers to move between venues without going outside. “There’s a lot of free flow between all of these things,” Marsh says. “The hope is that you really get the synergy between the entertainment portions of the music hall and the theater and the food hall. Now it’s just one big open space.”

## INSISTING ON QUALITY

To create something authentic-feeling—that warehouse ambiance without the warehouse—materials mattered. “The nice thing with a client like Hendricks is their willingness to use good materials. They love to have buildings that look like they have some age to them, that have character to them,” Marsh adds. That





**THE ARCHITECTS** broke up the monolithic mass of the existing buildings by creating a varying series of façade depths and alternating colors, which creates the sensation of multiple buildings along the block but had a functional purpose: Pushing out the façade in some spots created room for ventilation shafts for the Warehouse Food Hall's many kitchens.



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meant not taking the cheaper way out. “We were not just going to use brick on the ground floor and then try to fake up a historic building full of EIFS two or three stories above. They wanted nice windows. They wanted brick all the way up. They wanted to use as many high-quality materials as we could for the extent of the project. And I think that alone really helps on projects like these.”

The Warehouse Food Hall’s signature exterior material, for example, is a thin brick, not a brick veneer. “You still see the brick course and you can tell the brick has a little bit of a variation to it because they don’t quite line up and there’s a little bit of relief to them and it’s not exact,” Marsh

says. Inside, the design called for 3/4-inch wood, not wood-aping synthetic flooring.

Today downtown Boise is booming, with the Warehouse Food Hall just one of many new developments, including a new (but old-looking) hotel by the same developer just down the street. It all started with the Warehouse Food Hall’s act of place-making. “We wanted something that’s collectively going to bring a lot of different people from the community here and say, ‘This is pretty cool. This is fun to hang out here,’” Gerbitz says. “We wanted to really pay a lot of tribute to that earlier history of Boise that the historic district represents, which is pretty awesome.” 

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## » MATERIALS

**THIN-BRICK CLADDING** // Chicago Common, Salthouse and Stratford from McNear Brick & Block, [www.mcnear.com](http://www.mcnear.com)

**WOOD CLADDING** // Timber Ridge, Lost Trail and Back Country from UFP Edge Thermally Modified Collection, [www.ufpedge.com](http://www.ufpedge.com)

**ALUMINUM STOREFRONT** // Kawneer, [www.kawneer.com](http://www.kawneer.com)

**FOLDING GLASS STOREFRONT** // NanaWall, [www.nanawall.com](http://www.nanawall.com)

**WOOD DOORS** // Aspiro Series, Authentic Stile and Rail, from Masonite Architectural, [architectural.masonite.com](http://architectural.masonite.com)

**WOOD FLOORING** // Buffalo Jump Antique Oak from Superior Hardwoods of Montana, [superior-hardwoods.com](http://superior-hardwoods.com)

**WALLCOVERING** // Reclaimed Local Corrugated Metal, Reclaimed Local Wood Trim and Base, and Thin Brick from McNear Brick & Block, [www.mcnear.com](http://www.mcnear.com)

**EXTERIOR/INTERIOR LIGHTING** // Vive Controls from Lutron, [commercial.lutron.com](http://commercial.lutron.com); Mule, [www.mulelighting.com](http://www.mulelighting.com); Metalux, [www.cooperlighting.com/global/brands/metalux](http://www.cooperlighting.com/global/brands/metalux); Hi-Lite Manufacturing Co., [www.hilitemfg.com](http://www.hilitemfg.com); Intense Lighting, [www.intenselightning.com](http://www.intenselightning.com); Halo Commercial, [www.cooperlighting.com/global/brands/halo-commercial](http://www.cooperlighting.com/global/brands/halo-commercial); and WAC Lighting, [www.waclighting.com](http://www.waclighting.com)





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# HARTFORD HEALTHCARE AMPHITHEATER | Bridgeport, Conn.



PHOTOS: CARL B. VERNLUND unless otherwise noted







## ► RETROFIT TEAM

TENSILE ENCLOSURE ARCHITECT/ENGINEER: FTL Design Engineering Studio, [www.ftlstudio.com](http://www.ftlstudio.com)  
 BASE BUILDING ARCHITECT: Mingoello & Hayes Architects, [www.mingoellohayes.com](http://www.mingoellohayes.com)  
 BASE BUILDING STRUCTURAL ENGINEER: Szeker Engineering Inc., [www.szekerengineering.com](http://www.szekerengineering.com)  
 MECHANICAL & ELECTRICAL ENGINEER: General Drafting & Design, (203) 239-6818  
 GENERAL CONTRACTOR: Joseph A Grosso & Sons LLC, (203) 336-9717  
 SPECIALTY STRUCTURE CONTRACTOR: Dunn, dunn-lwa.com  
 DEVELOPER: Howard Saffan, Bishop Development, (203) 277-4598

## ► MATERIALS

In 2017, the local minor league baseball team moved away, leaving the city with an empty facility. Local developer Howard Saffan, in association with Live Nation and the city, developed the empty ballfield into a covered outdoor music facility for an underserved performance market.

The existing stadium was in good shape, having been built in the 1990s. The design and construction team's goal was to preserve as much of the existing facility as possible while augmenting it with a new enclosure. This required the design team to become forensic designers and engineers, examining the structure and foundations to determine where the strong points were located and where additional loads could be added; in addition, the existing tall bleachers required for sport sightlines would have to be covered.

Spanning an old ballfield with most materials—concrete, steel or glass—is difficult. Tensile approaches are desirable with their minimal weight on the existing structures. FTL Design Engineering Studio developed different design approaches and, with the owner, decided on a hybrid structure. Inserting a frame at the perimeter of the old ballfield and locating the stage at second base gave the orchestra and bleacher seating the ability to accommodate the required 5,700 seats.

The frame structure was in effect two different structures conjoined along a trussed gantry walkway, circling 80-feet above grade. The first structure covering the ballfield became a tensegrity roof with spans of 150 feet, using seven “flying masts” for a membrane roof. The second structure integrated this central tensile structure with the existing stadium, using framed steel trusses with a tensioned membrane. This skirt was supported in the open areas with piers to keep the perimeter open for exiting. In addition, an iconic entry wayfinding element was developed to draw spectators through ticketing and screening into the performance facility.

Using a structural membrane presents advantages and challenges. The fabric had to be structurally framed for curvature to resist wind pressures, luminous to allow for volumetric lighting and acoustically shaped to avoid trapped sound pockets. A luminous PTFE-coated glass fabric was used, which is non-combustible and boasts a lifespan in excess of 30 years. The areas where the flying masts join the fabric, ETFE foil skins bring in more light. Between the two structures was a black mesh fabric for passive cooling. In addition, large fans were located in the central space to circulate air in the summer months. New seating and a stage house were developed as a simple truss frame with metal cladding to mimic the curve of the fabric roof.

PTFE-COATED GLASS FABRIC: Saint Gobain, [www.saint-gobain.com/en](http://www.saint-gobain.com/en)





**DREKKER**  
BREWING COMPANY

# BREWHALLA | Fargo, N.D.

## » RETROFIT TEAM

ARCHITECT: MBA Architects, mbapc.com

## » MATERIALS

The Northern Pacific Railway Company (NPRC) built the 11,700-square-foot building that houses Brewhalla in 1883—before North Dakota achieved statehood. It was primarily a foundry and repair building for railcars and locomotives and later served as a storage and warehouse facility.

When Kevin Bartram of MBA Architects purchased the abandoned building, he had a vision in mind. “Kevin always knew he wanted to make this his home and live in the north end of the building,” says Darin Montplaisir, one of Drekker Brewing’s four cofounders. “He had envisioned a brewery in the other half of the building, so he approached us, and we jumped on the opportunity.” (Brewhalla is Drekker Brewing’s second location.)

Brewhalla’s structure is built with masonry load-bearing walls and a timber-framed roof. Besides

adding necessary structural reinforcements, most of the wood and brick in the building is original. Part of the restoration process was finding new uses for the building’s old elements. For example, some of the original nuts and bolts were used in installing new wood pieces, and the taproom tables are made from extra wood from the building. Even the skylights have an old purpose: they served as smoke chutes for the train exhaust.

In its early days, trains entered the maintenance building through one of three large doors along the east side of the building. The openings are now fitted with three custom-designed doors that each serve a different purpose. The middle door is a standard customer entrance door. The doors on either side of the patron entrance required a fully custom solution and were designed and installed by Midland Door Solutions, which specializes in custom hydraulic and bifold doors.

“We performed historic research and found drawings of similar doors in other NPRC buildings,” says James Monson, architect at MBA Architects. “However, we wanted the benefits of modern technologies.”

MBA Architects worked with Midland Door Solutions to create a set of oversized doors. They each measure 12-feet wide by 16-feet tall and weigh 2,300 pounds. Midland Door Solutions mirrored the pattern and elements of the main entrance door; heavy, dark lines contrast the windowpanes and pop against the light-brick building.

The southern door is a vertical bifold door that serves as a shipping and receiving entrance. It’s made with heavy-gauge steel tubing and has a fully automated operating system. The door opens and closes quietly in seconds, which is critical when it

is used throughout the day while customers are present.

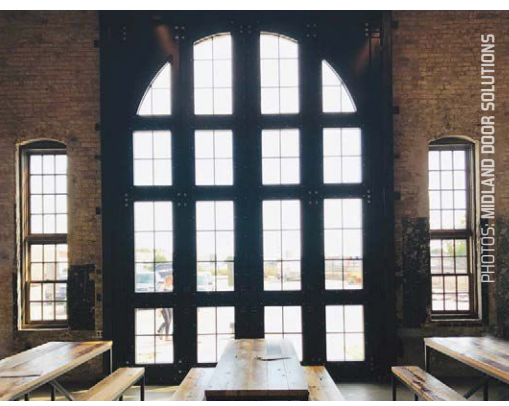
The door on the north side of the building is also a vertical bifold but operates manually with a pin and latch system. The handles inside the door make it easy for one person to manually open the door to go out to the patio and/or patronize food trucks in the parking lot. Both doors have a weathertight seal to help combat North Dakota winters.

The settling and shifting of a building over time posed challenges for the contractors installing new pieces into an old building. The door arches aren’t symmetric, either, meaning the team at Midland Door Solutions had to precisely measure each door to ensure a perfect fit. Because the building is constructed out of uneven brick, the team had to laser measure the arches incrementally across the opening. They then had to lay out the measurements in modeling software, average out the dimensions and create symmetric-looking doors.

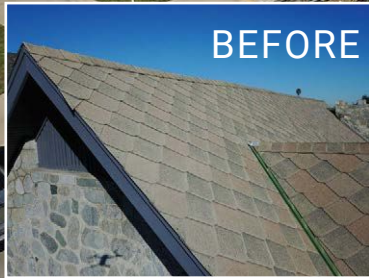
CUSTOM BIFOLD DOORS: Midland Door Solutions, [www.midlanddoorsolutions.com](http://www.midlanddoorsolutions.com)

## » THE RETROFIT

Today, conversations buzz and beer flows from Brewhalla’s taps. In the distance, a train roars past. The train’s presence reminds patrons the brewery and taproom’s building spent its early years as a locomotive maintenance facility and that the brewery’s features are heavily influenced by the building’s history. According to the owners, the building often leaves patrons in awe. “They get out of their cars, and you can see them say ‘wow,’” Montplaisir says. “That’s one of our continuing goals: to keep people saying ‘wow.’”





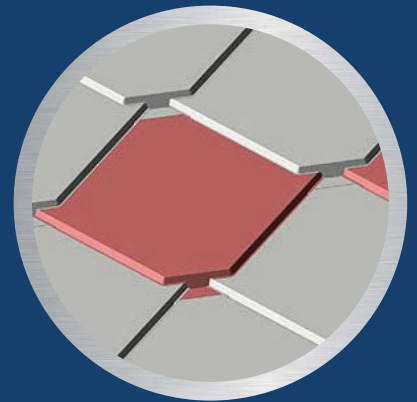


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When the old asbestos diamond shaped shingles began to fail on the Cornerstone Bible Church in Glendora, California, ATAS' CastleTop was chosen as a replacement. The shape of the .032 aluminum panels, which resembled the original shingles in appearance, was an important factor in their choice of a replacement roofing material. They also loved the idea of the longevity and durability of a metal roof, along with the fire resistance of the panels, a concern due to the southern California location of the church.

CastleTop aluminum shingles are 15 ¾" x 15 ¾" in size and offer coverage of 13 ½" x 13 ½". They have an embossed texture with a 70% PVDF paint coating. The shingles are also available in anodized aluminum, copper, and zinc, and can be used as a wall cladding, in addition to roofing.

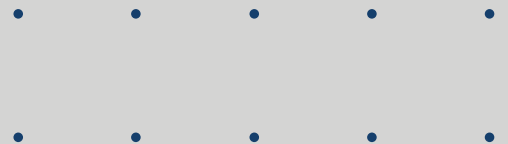


**Cornerstone Bible Church | Glendora, CA**  
**Roof Panels:** CastleTop in Rocky Grey and Charcoal Grey  
**Contractor:** Howard & Sons, Inc.  
**Distributor:** RoofLine Supply and Delivery

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# ASSEMBLY FOOD HALL, ROSSLYN CITY CENTER | Arlington, Va.



PHOTOS: JUDY DAVIS unless otherwise noted



BEFORE

BEFORE PHOTO: COOPER CARRY



## RETROFIT TEAM

ARCHITECT: Cooper Carry, [www.coopercarry.com](http://www.coopercarry.com)  
OWNER, DEVELOPER: AREP, [americanrepartners.com](http://americanrepartners.com)  
FOOD HALL OPERATOR: DMK, [www.dmkrestaurants.com](http://www.dmkrestaurants.com)  
FOOD HALL INTERIOR DESIGN CONSULTANT: StudioK, [www.studiokcreative.com](http://www.studiokcreative.com)  
METALWORK: Shickel, [www.shickel.com](http://www.shickel.com)

## MATERIALS

To bring AREP's vision for a reimagined Rosslyn City Center to life, Cooper Carry brightened the formerly brown brick exterior with light gray paint and added a bright, metallic silver coating on the windows dotting the perimeter of the tower. The refreshed exterior provided a canvas for a bold mural created by nationally recognized No Kings Collective that transforms the streetscape and encourages viewers to Dream Big.

A curtainwall and metal paneling system replaces the original brown pebble precast paneling on the first three floors and features pops of blue accents throughout as a nod to Rosslyn City Center's brand. The revitalized exterior adds interest to the retail level and helps draw Metro users vertically through the space.

Within Assembly, black metal, a variety of tile patterns and warm wood textures outfit the culinary collective, which is composed of an upper and lower level capable of hosting 625 patrons indoors and outdoors. Windows throughout the food hall act as glimpses into some of the dining spaces, with a few featuring fun graphics that create visual interest for patrons.

The following is a sampling of materials used in the project:

EXTERIOR PAINT: Breathable Masonry Coating II from Prosoco, [prosoco.com](http://prosoco.com)  
CURTAINWALL: Oldcastle BuildingEnvelope, [obe.com](http://obe.com)  
METAL PANELS: Alucobond, [www.alucobondusa.com](http://www.alucobondusa.com)  
WALL TILE: Elm Surfaces, [www.elmsurfaces.com](http://www.elmsurfaces.com); Porcelanosa, [www.porcelanosa-usa.com](http://www.porcelanosa-usa.com); and Tilebar, [www.tilebar.com](http://www.tilebar.com)  
FLOOR TILE: Cerasarda Cotto, [www.cerasarda.it](http://www.cerasarda.it), and Elm Surfaces, [www.elmsurfaces.com](http://www.elmsurfaces.com)  
INTERIOR STOREFRONT: USA Millwork, [www.usam-dc.com](http://www.usam-dc.com), and Carvart, [carvart.com](http://carvart.com)  
INTERIOR FOLDING WALL: Nanawall, [www.nanawall.com](http://www.nanawall.com)  
LIGHTING: Luminii, [www.luminii.com](http://www.luminii.com); Halo, [www.cooperlighting.com/global/brands/halo](http://www.cooperlighting.com/global/brands/halo);

USAI, [www.usailighting.com](http://www.usailighting.com); Tudo & Co., [tudoandco.com](http://tudoandco.com); Archipelago, [www.archipelago-lighting.com](http://www.archipelago-lighting.com); 2Modern, [www.2modern.com](http://www.2modern.com); Satco, [www.satco.com](http://www.satco.com); RBW, [rbw.com](http://rbw.com); Lithonia Lighting, [lithonia.acuitybrands.com](http://lithonia.acuitybrands.com); and UltraLights, [www.ultralightslighting.com](http://www.ultralightslighting.com)

## THE RETROFIT

The pièce de résistance of the repositioning of this 22-story aging and tired office tower is Assembly, a 29,000-square-foot food hall, featuring two levels of individual food stations.

Assembly introduces dining vignettes designed to appeal to a wide range of guests. To maximize use and provide diners with multiple eating options, Cooper Carry separated the dining lounge into three sections for corporate and customized events, happy hours, private lunch meetings and casual meals with friends. Flexible seating extends to the atrium, where a large open space can accommodate a variety of guest types. Other hospitality highlights include a large private event space and massive wine cellar, connected to an intimate dining room.

"Our design strategy dramatically transformed this late 1970s space into a modern, transit-connected, mixed-use community anchored by an exciting new food experience unlike any other in the area," says Sam Bennett, associate principal at Cooper Carry. "We opened up the insular retail footprint, modernized the office exteriors and incorporated interesting art, lighting and other design elements to draw people vertically through the space."

The renovation expanded the retail footprint, joining the 30,000-square-foot Gold's Gym with existing retail tenants—Rosslyn Metro Barbershop, Panera Bread and Chase Bank, for a total of 84,000 square feet of retail space. Connected to the gym is a nearly 2,000-square-foot outdoor terrace that allows for al fresco fitness classes and outdoor dining and socializing.

"The reimagined Rosslyn City Center answers our tenants' needs for flexibility, adaptability, experience and performance," says AREP Principal and Chief Operating Officer Paul Schulman. "Cooper Carry understood our vision; their skillful design has helped us transform this building into an exciting place where people can be and perform at their best while bringing to our tenants and the surrounding community best-in-class amenities to enjoy."

Rosslyn City Center has received the WELL Health-Safety Rating and ULI Industries-Verified Healthy Building for Indoor Air and Water.





# HILTON GARDEN INN | Chicago

## » RETROFIT TEAM

ARCHITECT: Hartshorne Plunkard Architecture, [hparchitecture.com](http://hparchitecture.com)  
 GENERAL CONTRACTOR: Leopardo Companies Inc., [leopardo.com](http://leopardo.com)  
 DEVELOPER: Phoenix Development Partners, [www.pdp-re.com](http://www.pdp-re.com)  
 PROJECT MANAGER: Daccord, [www.daccordllc.com](http://www.daccordllc.com)

## » MATERIALS

Located at 226 West Jackson Boulevard, a 1904 Frost-and-Granger-designed building boasting Classical Revival styling proved to be a fitting choice for transformation into a 135-room Hilton Garden Inn on the lower floors and a 215-room Canopy by Hilton Hotel above.

The Hilton Garden Inn boasts many notable accessibility features. In addition to an accessible business center, concierge desk, elevators, fitness facility, restaurant, meeting rooms, parking, entrance, registration desk and routes through the hotel, it provides accessible guest rooms with entry or passage doors offering 32 inches of clear width.

Seeking to create additional space within accessible guest rooms, Hartshorne Plunkard Architecture and Phoenix Development Partners chose to install pocket door frame kits from Johnson Hardware to guide the rooms' pocket doors within bathroom areas of the ADA-compliant rooms. The pocket door frame kits permit wider door openings to allow wheelchair and walker movement in and out. The kits also enable more efficient use of space because doors slide into walls as opposed to opening out.

Johnson Hardware's Series 2000 Heavy-Duty Pocket

Door Frame Kits were chosen because of their ability to endure daily use in a commercial setting. Although they are built to hoist heavy solid-core doors weighing up to 400 pounds each, the door kits deliver easy gliding, sliding back and forth with minimal effort. No more than 5 pounds of force is required to move the doors.

The kits, which were easy to install, included everything needed to implement their use in a commercial steel-stud framing application. Versatile enough to be adapted for non-standard wall thickness and block masonry walls, the kits also can be cut to accept smaller-sized doors. Nylon-encapsulated ball bearing wheels roll smoothly and quietly, and their tripod rocker design equalizes door weight across all wheels, helping prevent failure of wheels. The hardware design ensures doors won't jump off their tracks.

POCKET DOOR FRAME KITS: Johnson Hardware, [johnsonhardware.com](http://johnsonhardware.com)

## » THE RETROFIT

The 248,000-square-foot, National Historic Landmark building features 350 rooms and suites across both hotels. The hotels were given separate first-floor lobbies preserved from the building's original design, as well as 2,500 square feet of conference rooms and one fitness center for each. The project required the complete removal and rebuilding of the existing 15th floor to create a new 16th floor restaurant and lounge. A half dozen building elevators were renovated and a seventh added.

Both hotels welcomed their first guests in September 2021. The independent rooftop lounge and bar was unveiled early in 2022.



PHOTOS: JOHNSON HARDWARE





# KIA FORUM | Inglewood, Calif.

PHOTOS: CENTIMARK CORP.



## ► RETROFIT TEAM

ROOFING INSTALLER: CentiMark Corp., [www.centimark.com](http://www.centimark.com)

## ► MATERIALS

Kia Forum representatives had a solid deadline by which its existing rooftop logo had to be removed. Tight timelines and supply shortages combined to create a challenging situation in which the venue was at risk of missing its deadline. Given the time constraints and lack of available materials, the 135,000-square-foot roof was too large to undergo a complete PVC reroof. Instead, CentiMark utilized GAF coating products to entirely cover the existing logo and apply a new logo.

First, the roof deck was power washed to remove all dirt and debris and to prepare the existing PVC roof for coating application. Then GAF Unisil

Primer base was applied over the existing PVC system. It was then topped with the GAF High-Tensile Acrylic Top Coat in white, completely covering the previous logo. Lastly, GAF Kymax Coating was used to apply the Kia Forum logo to ensure a long-lasting, fade-resistant, protective rooftop logo.

The project took place in April and May, a season inundated with water and mist—less than ideal conditions for applying rooftop coatings. CentiMark took advantage of good days and maximized work time, implementing longer workdays during optimal weather conditions.

PRIMER BASE, ACRYLIC TOP COAT AND COATING: GAF, [www.gaf.com](http://www.gaf.com)

## ► THE RETROFIT

The Kia Forum concert arena is the only arena-sized venue in the country dedicated to music and

entertainment. The iconic venue attracts a wide variety of premier events, including the biggest names in music and entertainment, awards shows, mixed martial arts, boxing and more.





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# LIMETREE BEACH CLUB | St. Thomas



PHOTOS: BRIANADAMSPHOTO.COM



## ►► RETROFIT TEAM

GENERAL CONTRACTOR: J. Benton Construction, [www.jbcvi.com](http://www.jbcvi.com)

ARCHITECT: Silverberg Associates, (609) 921-1867

ROOFING CONTRACTOR: Central Roofing, (601) 898-9948

TIMESHARE OPERATOR: Club Wyndham, [clubwyndham.wyndhamdestinations.com](http://clubwyndham.wyndhamdestinations.com)

## ►► MATERIALS

Hurricanes devastated properties across the U.S. Virgin Islands (USVI) a few years ago, including on St. Thomas where the former Bluebeard Beach Club resort lost roofs on all seven of its guest-room buildings, which also all suffered significant moisture damage. Several smaller structures were so badly damaged they needed to be demolished. Club Wyndham and the homeowners' association decided to use the destruction as an opportunity to rebuild better and rebrand the development with a more upscale appearance. Three years later, the renamed Limetree Beach Club opened with new amenities and upgraded metal roofs, featuring a signature blue finish that make the resort easy to spot, by land or by sea.

"This project was very similar to a total rehab project," says Dave Rutberg, Silverberg Associates' project manager, describing the interior and exterior damage suffered by the buildings that survived the storm. "We had to basically gut everything to the

structural members, so we were left with a blank canvas. We tried to be sympathetic to the original buildings on the site."

The building team opted for a two-phased approach to the restoration effort, focusing on the guest-room buildings first to make them weathertight. Then they took on the services buildings, which all needed to be replaced, including a check-in facility, gym and pool lanai, relocating them on the property to maximize views and allow room for expansion. This new construction also included an additional building for guest rooms designed with accessibility in mind.

The previous roof had been metal but with a Spanish-style tile pattern in a terra-cotta finish. The new roof features PAC-CLAD Tite-Loc Plus panels from Petersen in the company's Interstate Blue finish. Central Roofing specified the panels in 0.032-gauge aluminum to better withstand the salt spray prevalent at the coastal location.

With construction complete, the reimaged resort has been happily accepting guests again. Chris Creely, Central Roofing's manager, says he's proud of the part his team played in getting the popular vacation spot back in business. "I think we did an excellent job, and the general contractor was more than pleased," he says.

TITE-LOC PLUS METAL ROOFING PANELS: Petersen, [www.pac-clad.com](http://www.pac-clad.com)



# RADY SHELL, BAYSIDE PERFORMANCE PARK | San Diego

## » RETROFIT TEAM

ARCHITECT: Tucker Sadler, [tuckersadler.com](http://tuckersadler.com)  
TRANSLUCENT SYSTEM INSTALLER:  
Primary Glazing, (619) 669-0653

## » MATERIALS

In addition to enhancing Rady Shell's staging and seating areas, a large focus was placed on expanding the park's public amenities. This included the construction of a new ticket booth and two coordinating concessions buildings where a variety of food options are prepared and served onsite.

It was important to Tucker Sadler designers that park and concertgoers utilizing these new structures still feel surrounded by nature. To conserve that feeling and commemorate the trees that were removed from the site during construction, designers photographed the trees and, in collaboration with Kingspan Light & Air, transformed those photos into large graphics. The graphics were applied to the ticket booth and concessions buildings' translucent exteriors.

"You are actually looking at the trees on the building that used to be in the park. You are still

sitting in between those trees, and it's a kind of celebration of what was there before, but in a new modern expression," says Sal Villanueva, the project's architect.

The graphics create compelling imagery that can be enjoyed day and night. During the day, the trees appear like shadows on the buildings. At night, light from inside shines through the translucent wall systems to make it look as though there is moonlight gleaming through the trees.

Kingspan Light + Air's translucent cladding system features concealed aluminum support and the ability to span large distances with minimal horizontal support structure; in the case of the park's ticket booth and concessions buildings, the span is 15 feet with no disruptions. The corners of the new buildings also are rounded with a polycarbonate corner condition that reduces the amount of visible metal for a smoother appearance.

Although the ticket booth features a double-panel translucent assembly that acts as a wall, the two concessions buildings utilize single-panel assemblies with a wall on the inside and light fixtures in between to create a light-box effect. These

systems are different and serve different purposes, but they appear identical from the exterior. This allows the architect to maintain a uniform appearance through all three buildings.

TRANSLUCENT WALL SYSTEMS: UniQuad Translucent Wall Systems from Kingspan Light + Air, [www.kingspanlightandair.us](http://www.kingspanlightandair.us)

## » THE RETROFIT

For the San Diego Symphony and its many fans, Rady Shell is the realization of a long-held dream for a permanent outdoor venue where local music lovers and travelers can come together to enjoy melodic sights and sounds. With downtown San Diego on one side and the bay on the other, the revitalized Rady Shell blends the city's urban beat with the bay's natural rhythms to create a masterful composition of art and architecture. The influence of the park's natural surroundings on the venue's design—from the dramatic shell-shaped stage to the gentle wavelike pavilions—is one of many unique elements that make the San Diego Symphony's first and only permanent outdoor performance center a one-of-a-kind musical experience.





# THE SOCIETY HOTEL | Bingen, Wash.

PHOTOS: LARA SWIMMER unless otherwise noted



## » RETROFIT TEAM

ARCHITECT: Waechter Architecture, [waechterarchitecture.com](http://waechterarchitecture.com)

- Ben Waechter, FAIA, principal-in-charge
- Alexis Kurland, project lead

STRUCTURAL ENGINEER: Grummel Engineering, [grummelengineering.com](http://grummelengineering.com)  
 GENERAL CONTRACTOR: Orange Construction, [orange-pdx.com](http://orange-pdx.com)  
 INTERIOR DESIGN AND LANDSCAPING: Blossom, [www.blossompdx.com](http://www.blossompdx.com)

## » MATERIALS

The following is a sampling of materials used in the project:  
 WINDOWS: Andersen, [www.andersenwindows.com](http://www.andersenwindows.com)  
 CABINETS/CASEWORK: Axiom Custom, [axiomcustom.com](http://axiomcustom.com)  
 WOOD PRODUCTS: Lakeside Lumber, [www.lakesidelumber.com](http://www.lakesidelumber.com)  
 BATHROOM FIXTURES: Delta, [www.deltafaucet.com](http://www.deltafaucet.com), and American Standard, [www.americanstandard-us.com](http://www.americanstandard-us.com)  
 TILES: Modernist Series from Daltile, [www.daltile.com](http://www.daltile.com)  
 CARPET TILE: Mohawk, [www.mohawkflooring.com](http://www.mohawkflooring.com)

## » THE RETROFIT

The client's program consisted of four distinct, yet related components: the adaptive reuse of a former school, 20 hotel cabins, a covered pathway and a spa building. Approaching the renovation of the school with a light touch, the primary design intervention became the reorganization of the cabins, pathway and spa to create a larger figure on the school's former play fields. In this solution, the individual cabins form a ring that loosely defines the edge of the site. Although each living unit is detached on the ground, each is united through a shared roof that cantilevers out to double as a covered walkway and porches for the cabins.

Built in 1903 and rebuilt in 1937, following a fire, the nearly 90-year-old Bingen Schoolhouse offers 10 private standard rooms and two 24-bed hostels, as well as a library in the reception area, lockers in the hallway and a



BEFORE

refurbished gym open to guest use. The floors are original to the building and are a combination of existing and salvaged from the former classrooms.

The ring of cabins defines a shared courtyard. With its connected roof, this ring acts as a frame, allowing views between the cabins and upward to the sky and hills. Visitors are presented with a double perspective—the close view of the courtyard's garden and the far view of the landscape—to provide a sense of retreat, even in a town setting.

Through the strategic placement of elements, the Society Hotel reconciles the competing needs of site and users. Maximizing views outward, while being respectful of neighbors, the design consolidates the disparate programmatic elements into a singular form that defines an internal community space and embraces its surrounding environment.



BEFORE

BEFORE PHOTOS: COURTESY WAECHTER ARCHITECTURE



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PHOTOS: MÓZ DESIGNS

## CHOCTAW CASINO | Durant, Okla.



### RETROFIT TEAM

ARCHITECT: JCJ Architecture, [www.jcj.com](http://www.jcj.com)

GENERAL CONTRACTOR: Tutor Perini, [www.tutorperini.com](http://www.tutorperini.com)

COLUMN INSTALLER: Glenn Rieder, [www.glennrieder.com](http://www.glennrieder.com)

### ► MATERIALS

A new expansion elevates the existing property into a sleek, contemporary destination for entertainment. Setting the tone and bringing meaningful details to the space, 10 statement columns throughout the lobby are a nod to the Choctaw Nation's underlying culture and heritage. The columns also complement wood tones and details within the addition. Optimizing movement through organic textures and gradient patterns, the columns dually serve as a point of connection, creating a rhythm throughout the lobby that guides toward other experiences and features within the resort.

Móz Designs created two different columns for the Choctaw Casino expansion. Six oblong custom-shaped column covers are roughly 4 feet 11 inches by 3 feet 10 inches in varying heights up to 23-feet tall. The columns are made from 3/16-inch aluminum, finished in Skinz Wenge Wood with engraved reveals. Four square metal columns are 4 feet 6 inches by 3 feet 2 inches with engraved horizontal reveals, made from .090 aluminum finished in Móz Designs' Gradients Supernova Coarse Durafilm. The elevator tower cladding is made of 1,824 square feet of .090 aluminum in a custom blue powder coat that ties the architectural features together. The brackets and trim are 1/4-inch aluminum in a clear finish at the reveals.

The project team was on a fast-track schedule for the casino's expansion, allowing for only a 30-month design and construction timeline. Móz Designs adapted to the ever-changing pace with updated revisions during the shop-drawing process and value engineering to reduce the labor and complexity of the installations.

CUSTOM COLUMN COVERS: Móz Designs, [mozdesigns.com](http://mozdesigns.com)



# HARRAH'S RESORT | Atlantic City, N.J.

## ► RETROFIT TEAM

ARCHITECT: MPM Studio,  
mpmstudio.com

## ► MATERIALS

Harrah's Resort is a beachside hotel and casino with beautiful ocean views. During a remodel of its Laguna Tower, hotel representatives selected wallcoverings made with DuPont Tedlar in the Mod Linen pattern for several hallways, room entryways and the elevator lobby.

Designers MPM Studio collaborated on a custom design with EndureWalls to fit the color palette the space needed. These high-traffic spaces needed to be resistant to stains and scuffs from casino-goers. The Tedlar Wallcoverings are protected by a film that provides an invisible yet impervious barrier against stains and the wear and tear of high-traffic environments.

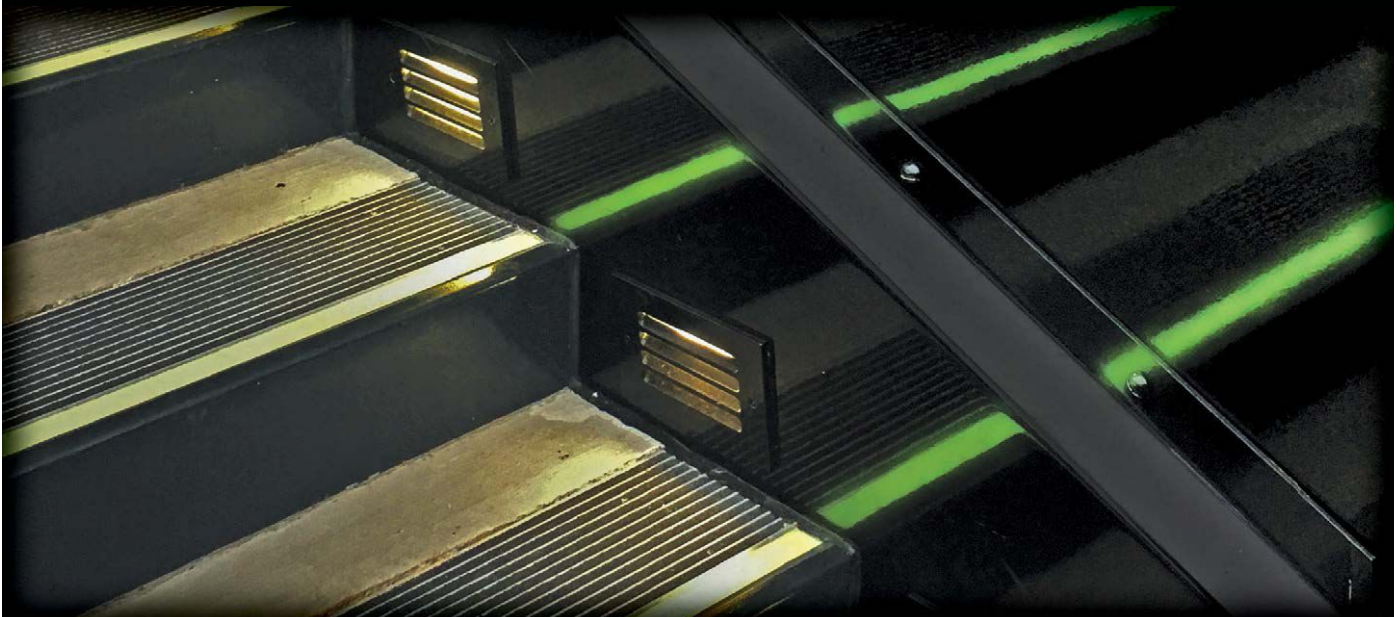
WALLCOVERINGS: DuPont Tedlar,  
[www.tedlarwallcoverings.dupont.com](http://www.tedlarwallcoverings.dupont.com)



PHOTOS: DUPONT TEDLAR

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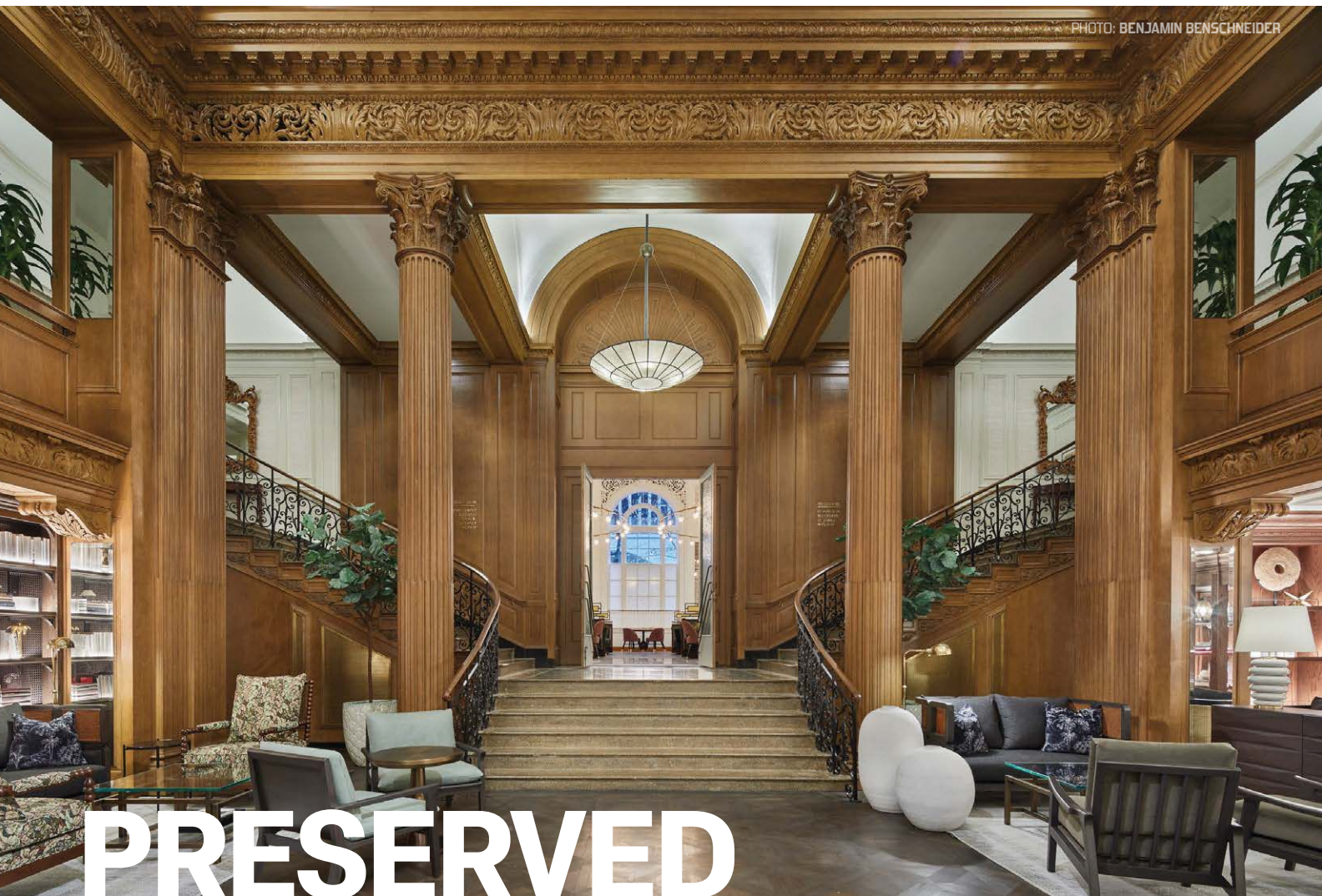
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# PRESERVED

*with a hint of*

# MODERN

WRITTEN BY | SHANNON SUESS

The Historic Details of Seattle's Fairmont Olympic Hotel Are Restored while Seamlessly Integrating Current-day Criteria

Seattle's Fairmont Olympic Hotel has stood as a beloved landmark for close to a century. It has hosted generations of celebrations, from engagements and weddings to afternoon tea with family and friends. Opened in 1924, the hotel is one of the oldest, most historic buildings in the city. As the city's premier hotelier and National Register of Historic Places member, it has accommodated dozens of elites throughout history, from President Teddy Roosevelt to John Lennon.

Recognizing the importance of preserving the hotel's rich heritage while updating its timeless charm, Fairmont Olympic Hotel leaders embarked on a restoration project. To achieve their goal, the hotel's representatives needed a team that could blend modern

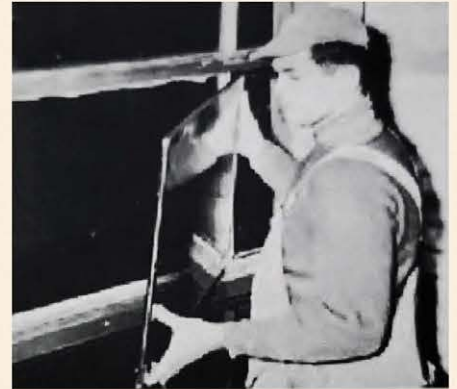
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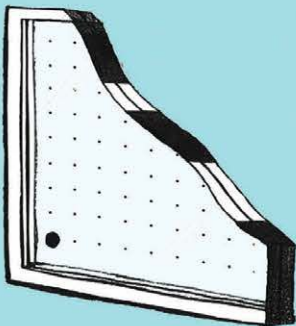
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Archibald Place (left) was able to maintain its existing building appearance while upgrading its monolithic glass to modern IGU performance.



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PHOTO: KIMBERLY PERSON, INTO DUST PHOTOGRAPHY



PHOTO: BENJAMIN BENSCHNEIDER

➤ The extraordinary marble panels at the Fairmont Olympic Hotel's reception desk are original to the 1924 building. They were pieced together from other areas of the hotel.

➤ The new lobby features a 360-degree bar topped by a custom, kinetic sculpture that calls to mind classic nautical symbols, including sails, ropes and pulleys. The woodwork throughout the lobby is original and was in good condition, so it simply was stained a darker color.



PHOTO: KIMBERLY PERSON, INTO DUST PHOTOGRAPHY



BEFORE

PHOTO: COURTESY FAIRMONT OLYMPIC HOTEL



elegance with classic sophistication while paying attention to every intricate detail in preserving the property's legacy. Renovating this historic gem wasn't just an enormous hospitality project, it was an honor and a privilege for the team at MG2, a local architect with a dedicated interest in community and culture.

## A VESTED INTEREST IN CONSERVING LEGACY, COMMUNITY AND CULTURE

While Spanish design studio Lázaro Rosa Violán curated the interior design, including the large nautical-themed art installation at the center of the Olympic Bar in the building's lobby, the Fairmont Olympic Hotel brought in MG2 to handle code enforcement, design reviews and execution. MG2 was responsible for understanding, embodying and maintaining the history of the property—a challenge that was exhilarating.

Like any retrofit, MG2's team anticipated unforeseen obstacles and surprises. However, the distinct hurdles the team faced, coupled with the far-reaching implications of every decision, made the Fairmont Olympic Hotel's renovation an endeavor that will be remembered for years to come.

## 100-YEAR-OLD TERRAZZO FLOORS

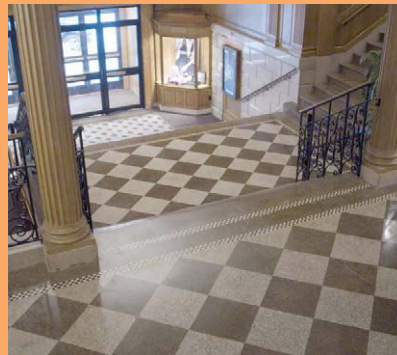
One of the biggest surprises came when the team lifted the carpeting at the hotel's south entrance and uncovered original, nearly 100-year-old terrazzo floors. The floors had been hand-laid by artisans in 1924. The team knew as soon as the floors were uncovered, it had to do everything in its power to ensure they were preserved.

Rejuvenating these terrazzo floors was a particular highlight of MG2's work on this historic restoration. Terrazzo is a beautiful surface that is durable and repairable, and MG2's team was excited to discover the hotel's terrazzo floors on the main staircase and landings were still in fantastic shape.

The crew began the process by removing the existing carpet, as well as the carpet adhesive and any residual fillers. The original terrazzo was then ground down using diamond grinders, and repairs



PHOTOS: COURTESY FAIRMONT OLYMPIC HOTEL



Rejuvenating original—and unexpected—terrazzo floors was a particular highlight of MG2's work on the hotel's historic restoration. Today, the floors are as beautiful as they were nearly a century ago.

and replacements were made to create the original look. The original colors were matched as best as possible, and aggregates were procured from Italy and domestic sources to make the floors look original. After a full grout coat, the floor was ready to polish, and then it was sealed to give it a patina. It's a thrill to say that the hotel's terrazzo staircase is as beautiful today as it was almost a century ago.

## 1920s WROUGHT-IRON HANDRAILS

One of the project's biggest challenges was bringing the hotel's original 1920s wrought-iron handrails up to code height. Typically, rails like these would be removed and replaced with new materials for ease of installation. However, MG2 knew that these historically significant elements were irreplaceable, so custom metal extensions were designed by MG2 and created so the rails would meet code height while retain-

ing their original pickets and wood caps. This approach was not only a sustainable choice but also was 75 percent less expensive than replacing the rails and allowed the hotel to retain a critical historical feature.

## 300-POUND GEORGIAN CHANDELIERS

The hotel's two historic 300-pound Georgian chandeliers are another crowning statement of elegance, grace and glamour. The chandeliers had presided in the hotel's restaurant, overseeing decades of celebrations and momentous occasions. Each chandelier was carefully dismantled, and each individual crystal was removed, labeled and wrapped. The pieces then were sent to Artech, which provides fine arts services, and stored in a state-of-the-art facility. The chandelier was rewired for use with dimmable LED bulbs, and The Service Companies, a provider of cleaning services, cleaned the individual crystals, chains and pendants. Once the chandelier structures were in their new location in the Spanish Ballroom foyer, the crystals were placed one by one using a ladder for the lower crystals and an onsite lift for the upper parts. The chandeliers once again shine brilliantly in their new location.

## A NEW ENTRANCE FOR LOCAL CLIENTELE

Although the hotel's restaurant—originally the Georgian Room, now The George—has always been a destination for the local community, its only entrance was through the hotel lobby. Offering street-level access was an important aspect of the redesign. A pair of enormous, glass and mirror archways now flank the restaurant's new bar—one opens directly onto the street while the other leads to a secluded lounge behind the restaurant's bar.

## ADA COMPLIANCE WITH HISTORIC CHARM

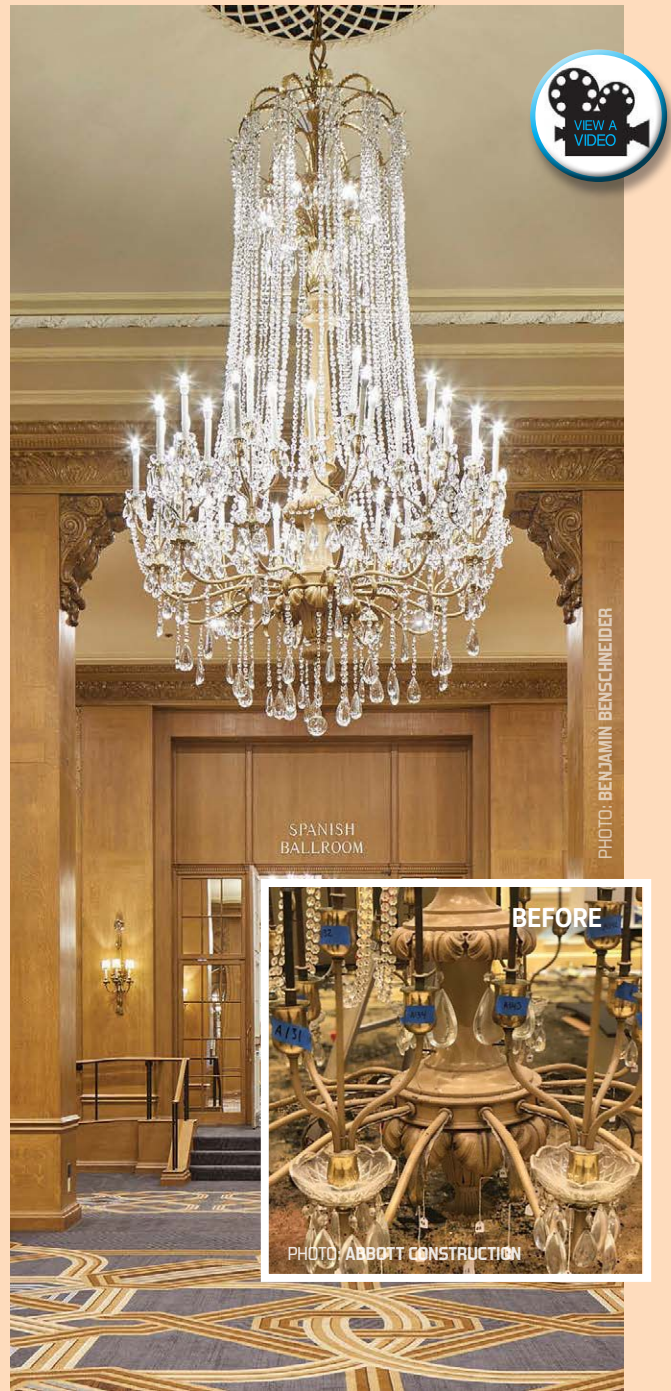
MG2 also made significant ADA improvements to the hotel, bringing it into the modern era for accessibility while preserving its historic beauty.

"The original ADA plans for the Fairmont Olympic Hotel renovation kept





➤ The Fairmont Olympic Hotel's original 1920s wrought-iron handrails did not meet current building code standards. These historically significant elements would be impossible to replace with anything from the modern era, so the team worked with subcontractors to create custom metal extensions that allowed the rails to meet code height but still retain their original pickets and wood caps. This approach avoided adding hundreds of pounds of material to the local landfill and was 75 percent less expensive than replacing the rails.



➤ As crowning statements of the Fairmont Olympic Hotel's elegance, grace and glamour, the two historic 300-pound chandeliers were retained. Both were carefully dismantled, and each individual crystal was removed, labeled and wrapped. Following a complete restoration, the chandeliers were meticulously reassembled in a new location—the Spanish Ballroom foyer.




changing because the team would open a wall and find all kinds of wiring that simply couldn't be moved," says John Leuck, project manager and a senior associate at MG2. "It was a challenging process, but we were committed to making the hotel accessible to all guests."

Two ADA ramps and six limited use/limited application elevators, or vertical platform lifts, were designed to blend in elegantly with the new interior of the Fairmont Olympic Hotel.

"We provided ADA vertical platform lifts in areas where we couldn't install a ramp, using two different types of lifts: one that was open to the space and another that was concealed behind a finished wood door," Leuck says. "The concealed LU/LA used doors that matched the hotel's original wood while the other has beautiful glass surrounding it to blend into a glass rail we used in another part of the hotel."

## COLLABORATION PRESERVES A BELOVED LANDMARK

The revitalization of the Fairmont Olympic Hotel was a collaborative effort with each team member and partner bringing unique expertise to the project. MG2's work was just one piece of the puzzle, and the firm is proud to have played a role in preserving this iconic piece of Seattle's history.

For all involved, the multi-phased project was a labor of love. As Sunny Joseph, the Fairmont Olympic Hotel's general manager, so perfectly states: "The Olympic's stunning transformation is a tribute to the timeless tale of this hotel—a living expression of the past, present and future of Seattle. Opening the lobby sets the stage for a social experience that will bring forth deeper connections with our guests, our community and this great city as we forge a new future together." 

## RETROFIT TEAM

**ARCHITECT OF RECORD** // MG2, [mg2.com](http://mg2.com)  
**DESIGNER, PUBLIC SPACES** // Lázaro Rosa Violán, [lazarorosaviolan.com](http://lazarorosaviolan.com)

**DESIGNER, MEETING SPACES** // Parker-Torres Design, [www.parkertorres.com](http://www.parkertorres.com)

**GENERAL CONTRACTOR** // Abbott Construction, [www.abbottconstruction.com](http://www.abbottconstruction.com)

**STRUCTURAL ENGINEER** // Lund Opsahl, [lundopsahl.com](http://lundopsahl.com)

**LOBBY BAR SCULPTURE** // Fuhtah, [fuhtah.com](http://fuhtah.com)

**TERRAZZO RESTORATION** // North American Terrazzo, [www.naterrazzo.com](http://www.naterrazzo.com)

**CUSTOM LIGHTING FIXTURES** // Environmental Lighting for Architecture, [www.ela-lighting.com](http://www.ela-lighting.com)

**MARBLE INSTALLATION** // Western Tile & Marble, [www.westerntile.com](http://www.westerntile.com)

**RAILING EXTENSION** // Johansen Mechanical, [www.johansenmech.com](http://www.johansenmech.com)

**ELEVATORS** // Primarius, [www.primariuselevator.com](http://www.primariuselevator.com)

**MILLWORK** // Interior Woodworking Specialists, [interiorwoodworking.com](http://interiorwoodworking.com)

**FINE ARTS SERVICES** // Artech, [artechfas.com](http://artechfas.com)

**CHANDELIER CLEANING** // The Service Companies, [theservicecompanies.com](http://theservicecompanies.com)

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# UNDERPLAY

A 1920s Theater Emphasizes the  
Intimate Relationship Between  
Artist and Audience

WRITTEN BY | CHRIS WASNEY, FAIA





PHOTOS: BRUCE DAMONTE, unless otherwise noted

**M**enlo Park, Calif.'s newly reimagined “jewel box” theater, The Guild Theatre, is an exceptional example of a revitalization effort to bring world-class, live performances to the region. The team, led by CAW Architects, sought to create a state-of-the-art performance space that emphasizes an intimate relationship between artist and audience. Specifically, a key design goal for the client, non-profit Peninsula Arts Guild, was to create a suitable venue for larger, well-known artists who value performing in a smaller setting—an industry term known as “underplay.”



To achieve this goal, CAW Architects designed a 500-person-capacity theater that replicates a traditional theater with a series of viewing terraces and stepped-down flooring, paired with a stage height of 3 feet, allowing performers to play to standing-room crowds. Inspired by the legendary Fillmore Theater in San Francisco, the larger-than-typical stage for the theater's size, including the superb artist amenities, ensures that it will

attract world-class talent.

For the interior architecture of the venue, which dates back to the 1920s, the biggest design challenge, beyond creating clear sightlines and audience-artist intimacy, was managing the architectural acoustics. Architectural finishes had to perform three important duties: create favorable acoustics, look beautiful and be virtually indestructible from the hard use that concertgoers dish out.

Finishes were selected for maximum



INSPIRED BY THE LEGENDARY FILLMORE THEATER IN SAN FRANCISCO, CAW ARCHITECTS DESIGNED A 500-PERSON-CAPACITY THEATER WITH A SERIES OF VIEWING TERRACES AND STEPPED-DOWN FLOORING, ALLOWING PERFORMERS TO PLAY TO STANDING-ROOM CROWDS. JON



## » RETROFIT TEAM

**OWNER** // Peninsula Arts Guild, [www.guildtheatre.com](http://www.guildtheatre.com)

**ARCHITECT** // CAW Architects, [cawarchitects.com](http://cawarchitects.com)

■ Chris Wasney, FAIA, principal

■ Monique Wood, AIA, LEED AP, associate

■ Kathryn Stevens

**GENERAL CONTRACTOR** // Vance Brown Builders, [vancebrown.com](http://vancebrown.com)

**STRUCTURAL ENGINEER** // BKG Structural Engineers, [www.bkgse.com](http://www.bkgse.com)

**THEATRICAL AND AV CONSULTANT** // The Shalleck Collaborative, [www.shalleck.com](http://www.shalleck.com)

**THEATRICAL SYSTEMS INTEGRATOR** // Legend Theatrical, [www.legendtheatrical.com](http://www.legendtheatrical.com)

**ACOUSTICS AND LOW VOLTAGE** // Salter, [www.salter-inc.com](http://www.salter-inc.com)

**LIGHTING DESIGNER** // Banks Landl Lighting Design, [bankslandl.com](http://bankslandl.com)

**MECHANICAL ENGINEER** // Taylor Engineers, [www.taylorengineers.com](http://www.taylorengineers.com)

**INTERIOR DESIGNER** // Ken Fulk Inc., [shop.kenfulk.com](http://shop.kenfulk.com)

## » MATERIALS

**ENTRANCE DOORS** // Stainless Steel door with Custom Glazing Shape from Forms + Surfaces, [www.forms-surfaces.com](http://www.forms-surfaces.com)

**NEON MARQUEE** // Refurbished Original Blade Sign and Neon Design, Fabricated by Arrow Sign Company, [arrowsigncompany.com](http://arrowsigncompany.com)

**END GRAIN WOOD FLOOR** // Worthwood White Oak, Stained Black #120, from Oregon Lumber Co., [www.oregonlumber.com](http://www.oregonlumber.com)

**WOOD CEILING GRID** // Open Cell Tile, 6-inch On-center Grid, Custom Walnut Stain, from Madrid, [madridinc.com](http://madridinc.com)

**WOOD CEILING PANELS** // Flat Panel, Perforated Wood, Custom Walnut Stain, from Madrid, [madridinc.com](http://madridinc.com)

**BRONZE HANDRAIL TOP CAP** // Julius Blum 4530 Profile, [www.juliusblum.com](http://www.juliusblum.com)

**WALL TILE BEHIND BAR** // Laguna Tile, Azure, 6-inch Scallop Pattern from Concrete Collaborative, [www.concrete-collaborative.com](http://www.concrete-collaborative.com)

**BAR TOP** // Lemurian Blue Granite

**BAR FACE** // Interlam FL1 Scalloped Panels, [www.interlam-design.com](http://www.interlam-design.com), Painted Benjamin Moore, Tucson Teal, [www.benjaminmoore.com](http://www.benjaminmoore.com)

**WAINSCOT PANELS** // Custom Walnut Finish Wood with Metal Mesh Infill, S-55, Antiqued Brass from Banker Wire, [www.bankerwire.com](http://www.bankerwire.com)

**REFURBISHED LIGHT FIXTURE OVER BAR (SALVAGED FROM ORIGINAL BUILDING)** // Dogfork Lamp Arts, [www.dogfork.com](http://www.dogfork.com)

**CURTAINS AT WALL** // Inherently Flame-resistant Prestige 26-ounce, Custom Dark Orange Color, from iWeiss, [www.iweiss.com](http://www.iweiss.com)

**CURTAIN AT STAGE** // Inherently Flame-resistant Prestige Tara, 3185 Burgundy Color, from iWeiss, [www.iweiss.com](http://www.iweiss.com)

**CUSTOM STAIR LIGHT FIXTURES** // James W. Crawford Company, [www.jameswcrawford.com](http://www.jameswcrawford.com)

**CUSTOM TERRAZZO FLOORING** // Associated Terrazzo, [www.associatedterrazzo.com](http://www.associatedterrazzo.com)



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absorbency so virtually no surface reflects sound back to its source. A deep walnut palette, which aesthetically makes for a dark yet warm interior, performs its acoustical work by a series of solid panels festooned with holes and perforations that allow sound to pass through. Walnut “egg-crate” ceiling systems and wood wainscoting perform similar double duty. Walnut flooring, cut to reveal the end grain, proves a durable material that is beautiful and virtually indestructible.

The exterior of the fully remodeled theater underwent substantial new construction and was properly scaled for a zero setback that honored the fully restored historic blade sign and marquee. Most of the existing building was demolished with the exception of portions of two exterior walls, which were painstakingly supported while a full basement was excavated for support space. The tiny site and difficulty of shoring not only the remaining concrete walls but the neighboring buildings during the 18-foot-deep excavation required amazing planning and site logistics by the general contractor, Vance Brown Builders.

Glazing was added to the façade to showcase the activity in lower and upper lobbies on show nights. Interior heights were carefully designed around the need for specific theater systems and rigging above the stage. A flexible guardrail system in the balcony section allows for varied heights, depending on the needs of the show, whether it is a seated or standing-room event.

Because artist comfort was of the utmost importance, the carefully programmed artist facilities address performers’ specific travel needs—everything from showers to a place to nap, eat and wash clothes—and were considered and designed for ultimate comfort. A catering kitchen supports meals for artists and crew.

Additional artist perks include a streaming studio and numerous pan/tilt/zoom cameras that allow for live streaming of performances, as well as video capture to reward the artists with a video record of their performance. A state-of-the-art Meyer sound system powers the audio, and a theatrical lighting rig that one venue





BECAUSE ARTIST COMFORT WAS OF THE UTMOST IMPORTANCE, THE CAREFULLY PROGRAMMED ARTIST FACILITIES ADDRESS PERFORMERS' SPECIFIC TRAVEL NEEDS.



## » A KEY DESIGN GOAL FOR THE CLIENT WAS TO CREATE A SUITABLE VENUE FOR LARGER, WELL-KNOWN ARTISTS WHO VALUE PERFORMING IN A SMALLER SETTING—AN INDUSTRY TERM KNOWN AS « “UNDERPLAY.”


manager remarked was “sized for an arena, not a club” allows lighting designers an unlimited palette.

Theatergoers can enjoy the playful interiors palette, which was brought to life by interior designer Ken Fulk. Key moments include swinging entry doors, outfitted with custom portholes, that lead into the lobby where the terrazzo flooring was designed with an inlaid reference to a vintage phonograph. Other highlights include rock crystal fixtures with a color scheme of California poppy orange and burgundy with leather, brass, walnut and glossy lacquered wall panels that can be found throughout the venue.

The result of the team’s significant efforts is an utterly unique, reimagined venue that is now cherished more than ever by the local Menlo Park community and revered by concertgoers and artists alike.

To the client’s delight, the coveted “underplays” have materialized as planned

with artists, such as The Wallflowers, Social Distortion, and Nathaniel Rateliff and the Night Sweats, having graced the stage recently. This past April, Bobby Weir and the Wolf Brothers Trio closed its national tour with a five-day residency. Weir is, of course, a founding member of the Grateful Dead, a band which began its storied career in 1965 by playing its first gig at Magoo’s Pizza Parlor right around the corner from The Guild Theatre. Other venues on the tour ranged between 1,500- and 3,000-person capacity, so it speaks volumes that the musician chose to take up residency at The Guild Theatre for five shows.

What really matters most in a venue like this is creating an intimate relationship between the audience and the artist. Superb architectural acoustics, state-of-the-art sound and lighting systems, and impeccable sightlines reinforce this relationship. Finally, interior finishes that include dark wooden finishes with bronze accents make for an elegant atmosphere. 





# Daylighting<sup>+</sup>



photo: Darris Lee Harris

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# SAVED FROM THE CUTTING ROOM FLOOR

AN ABANDONED FOUNDRY FINDS  
NEW LIFE AS A LUXURY HOTEL

PHOTOS: BRUCE McCAMISH unless otherwise noted





WRITTEN BY | MARTY E. GIBBS, P.E., LEED GA

**T**he Asheville Supply and Foundry Company in North Carolina was established in 1915 and produced steel and other supplies used to build area landmarks, such as Biltmore House, the country's largest home, and Asheville City Hall. When the foundry closed in 1950, its collection of buildings was abandoned and initially slated for demolition.

In 2017, the Preservation Society of Asheville and Buncombe County announced plans to transform the historic site into a top hospitality destination. After decades of vacancy, the buildings were in extreme disrepair, but a team was assembled to give the project a new vision and save the discarded site.

The Christman Company served as construction manager and partnered with Encore Lodging and Studio Z Architecture to preserve the historic nature of the site's existing three buildings and construct two new structures to cohesively fit within the site. Guidance was provided by the North Carolina State Historic Preservation Office and the National Park Service.

The result is a boutique hotel, now called The Foundry Hotel, an 87-room, 80,258-square-foot luxury property.

### Decompress and Dine in Style

Positioned in an area known as "The Block," the hotel, located at 51 S. Market Street, includes five buildings with a project cost of \$24 million.

The hotel is now part of Hilton's Curio Collection and includes a 100-seat restaurant called Benne on Eagle, a nod to historic Eagle Street for being an integral part of the community's history.

The hotel's website, [foundryasheville.com](http://foundryasheville.com), lends insight into this area and the restaurant: "For much of the twentieth century, Eagle Street was the place to be on The Block. Local businesses helped weave the collective fabric of our predominantly African American neighborhood. Serving as the heart of The Block's thriving social scene, Eagle Street was home to an abundance of gathering spots for food, drink, live music and entertainment."



**ESTABLISHED IN 1915**, the Asheville Supply and Foundry Company in North Carolina produced steel and other supplies used to build area landmarks, such as Biltmore House, the country's largest home. The foundry closed in 1950, and its collection of buildings was abandoned.





In the late 1980s and early 1990s, our once-thriving neighborhood fell into disrepair. Since then, The Block has remained largely untouched and its business community in decline. We ... are proud to be a part of the revitalizing new energy on Eagle Street.”

Benne on Eagle’s Executive Chef Robert Alexander says he “is proud to continue the evolution of the restaurant’s theme of Sankofa—‘go back and get it’ in the Twi language—progressing forward and integrating new food techniques and methods while looking back to history to learn and bring awareness to culinary traditions from the African American culture of The Block.”

### Old and New

The Foundry Hotel is a stunning example of melding old and new: The juxtaposition of modern touches amid the environs of a century-old complex provides visual interest and places of luxurious comfort at every turn.

Every nook, guest room and common area features modern conveniences for today’s travelers that preserves the past grandeur of the buildings while seamlessly delivering on today’s design and uses.

This project was particularly gratifying because of the historic buildings the team was able to help save. Working closely with the North Carolina State Historic Preservation Office ensured the team followed its mission to promote the preservation and reuse of historic architecture. The neighborhood is undergoing revitalization efforts, and everyone was honored to be a part of its resurgence.

The strategy of the construction elements was clear: Utilize durable, high-quality materials to preserve the historic fabric of the neighborhood and craftsmen who replicate materials found in the existing buildings to ensure integrity and withstand the test of time. Simple at a glance but a labor intensive—and rewarding—challenge for the parties who were bringing the site back to life.

The brick façade and large windows of the existing buildings were preserved, and the name of the original company remains visible on an exterior wall. Brick,

mortar and aluminum storefront systems were chosen to match the existing buildings as closely as possible. Exterior exposed structural steel was included as an architectural feature to maintain the appearance of an industrial foundry. The steel elements were galvanized and coated with a high-performance finish to increase their life expectancy.

For the existing structures, the interior and exterior brick finishes were cleaned with a water-vapor blast to maintain the finish. Reclaimed, historic brick was used where possible. Even the historic granite curbs were saved, refurbished and reused.

Modern rugs sit atop original 100-year-old hardwoods. Refurbished exposed steel and brick are elevated with intricate molding in earth and jewel tones, reminiscent of the buildings’ original era.

Among the more interesting elements, an existing freight elevator was preserved in its original place as an architectural feature.

The historic storefront with wavy glass was restored to its original condition, and existing steel casement windows were refinished with period materials and methods to maintain the historic feature. Historic restoration wood windows were clad in aluminum for ease of maintenance—again aligning with the historic appearance.

The new buildings contain structural steel framing, concrete slabs on deck and metal stud wall framing. Waterproofing and damp-proofing efforts used the most modern methods available. Thermoplastic polyolefin (TPO) roofing material was used for the majority of the project, except one building, which incorporated architectural standing-seam roofing.

A few things were added to the “stuff you encounter when refurbishing 100-year-old buildings” list, including the need for significant shoring and underpinning of the existing buildings and creating new adjacent buildings with enhanced foundations and basement features. The team also discovered a full-sized tree that had grown through a basement wall in one of the buildings! The tree had to be removed and that portion of the structure was rebuilt.



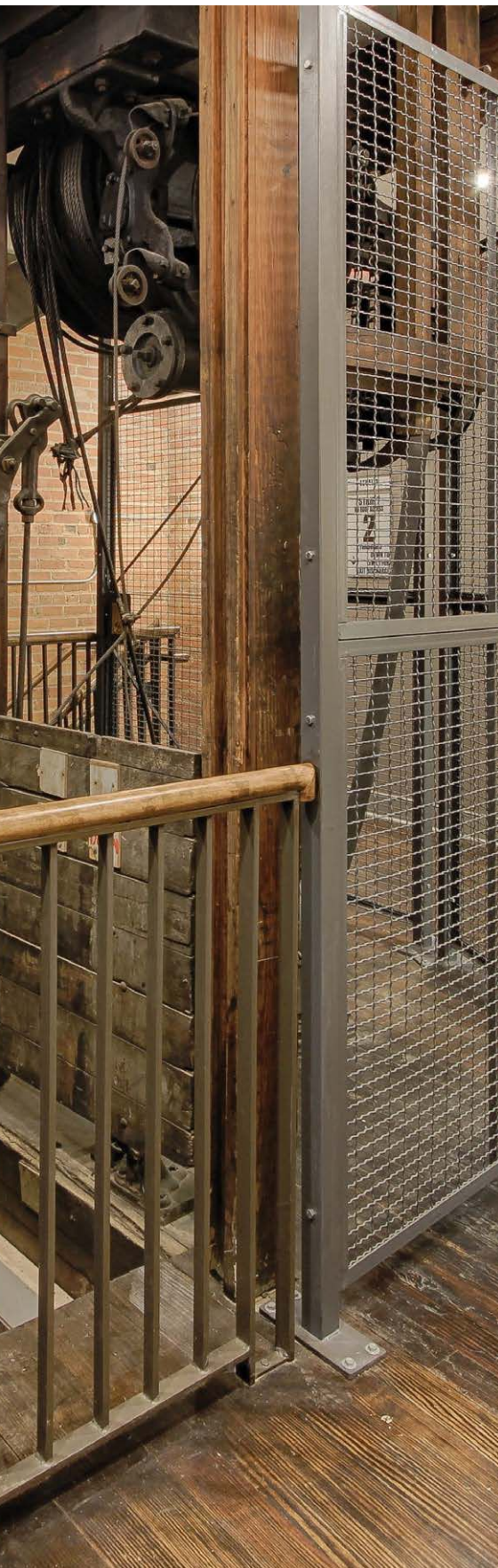


## ■ THE GRAND PUBLIC SPACES

ALLOW GUESTS THE FREEDOM TO LOUNGE IN LARGE COMMON AREAS WHILE ENJOYING ABUNDANT INTIMATE VIGNETTES. MEANWHILE, FIVE UNIQUE BUILDINGS RESULT IN SEVERAL DIFFERENT ROOM LAYOUTS WITH ATTENTION TO HISTORIC DETAIL. FOR EXAMPLE, BRICK WAS LEFT EXPOSED IN GUEST ROOMS WHERE POSSIBLE.







### Designed to Inspire

As the construction timeline progressed, the spaces were brought to life through inspiring design.

The grand public spaces allow guests the freedom to lounge in large common areas while enjoying abundant intimate vignettes. The oversized lobby opens onto a beautifully manicured courtyard, which is centered in the middle of the five-building complex. The courtyard's lush landscaping was guided by The North Carolina Arboretum and includes fire pits, as well as rocking chairs and other comfortable seating for entertainment activities.

In the guest rooms, the team took advantage of having five unique buildings and several different room layouts. Brick was left exposed where possible, and fine furnishings are embellished by different amenities, such as kitchenettes, built-in shelves and cabinets, and stunning tile and marble bathrooms.

### Challenges Conquered for a Bright Future

When faced with major restoration and construction on a small site in a downtown area with limited space and accessibility, the team meticulously coordinated trade contractor activities and deliveries to maximize the use of space and streamline productivity to avoid bottlenecks.

Through constant, clear communication, the project site enjoyed smooth operation throughout with the project team readily available to address any questions—from budget to schedule and beyond—or issues. This helped the team deliver the project on budget and on schedule with site safety paramount, which resulted in zero lost-time incidents.

As this corner of Asheville, N.C., continues to grow and come back to life, The Foundry Hotel will be a beautiful nod to the area's history and a luxurious retreat for travelers for decades to come. [F](#)





## ■ Retrofit Team

**CLIENT** // Encore Lodging

**GENERAL CONTRACTOR** // The Christman Company, [www.christmanco.com](http://www.christmanco.com)

**ARCHITECT** // Studio Z Architecture, [www.studioz-architecture.com](http://www.studioz-architecture.com)

**ENGINEER** // NV5, formerly Mulkey, [www.nv5.com](http://www.nv5.com)

**HISTORIC ARCHITECT** // RedClay Design and Development, [redclaydesign.com](http://redclaydesign.com)

**INTERIOR DESIGN** // Lagom Interiors, [www.lagominteriors.com](http://www.lagominteriors.com)

## ■ Materials

**FLOORING** // Armstrong Flooring, [www.armstrongflooring.com](http://www.armstrongflooring.com), and Daltile, [www.daltile.com](http://www.daltile.com)

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# IN NEW ORLEANS, A FORMER ORPHANAGE IS REIMAGINED AS A LUXURY BOUTIQUE HOTEL

A long-neglected property in New Orleans' Lower Garden District reopened as Hotel Saint Vincent following a \$22.5 million restoration of the historically designated, five-building campus.



Constructed in 1864, the main red-brick Victorian structure originally housed the St. Vincent's Infant Asylum, an orphanage operated by the Daughters of Charity. The building was primarily financed by Margaret Haughery, an Irish immigrant, local businesswoman and philanthropist. The orphanage underwent a couple expansions that included construction of an additional small building for expectant mothers, as well as a laundry and carriage house that served the adjacent stables.

In the early 20th century, the facility was converted into a low-budget hostel for single mothers and eventually garnered a reputation as a rundown hub of unsavory activities.

Entrepreneurial hotel developer Zachary Kupperman, founder and CEO of Kupperman Companies, purchased the dilapidated property in 2017 with the goal of transforming the campus into a high-end neighborhood hotel. He spent the first 18 months gaining support and approval from the city, neighborhood associations and New Orleans Historic District Landmarks Commission, whose approval was vital for securing the historic rehabilitation tax credits that made the project financially feasible.



Constructed in 1864 as the St. Vincent's Infant Asylum, the facility had been converted into a low-budget hostel for single mothers by the early 20th century. It eventually garnered a reputation as a rundown hub of unsavory activities.





THE RESTORATION PROJECT BEGAN WITH EXTENSIVE STRUCTURAL WORK THAT INVOLVED REPAIRING THE EXTERIOR CLAY MASONRY AND OTHER STRUCTURAL ELEMENTS, DATING BACK TO THE 19TH CENTURY.

To convert the 150-year-old property into a 74-room boutique hotel, Kupperman assembled a design and construction team that included architect MetroStudio, interior designer Lambert McGuire Design and design-assist contractor Impetus. MML Hospitality operates the hotel, which is situated among the Greek Revival and Italianate-style mansions of the city's charming Lower Garden District.

### Structural Challenges, Improvements

The restoration project began with extensive structural work that involved repairing the exterior clay masonry and other structural elements, dating back to the 19th century. The engineering and construction teams had to employ an array of complementary strategies to address structural repairs and load-path modifications of the original structural elements, which included heavy timber, load-bearing masonry, built-up iron beams, cast-iron columns and an early version of cast-in-place concrete.

Structural upgrades also included the introduction of waterproofing details that repel moisture and assimilate with the buildings' historic aesthetic. The installation of dedicated outdoor air units to pressurize each building also helps negate the excess moisture issues that are common in the hot, humid New Orleans climate.

The challenging geotechnical conditions of New Orleans created additional structural complexities. Because the original buildings were set on soil-supported corbeled masonry footings, the introduction of new loads at or adjacent to the existing foundation elements could generate settlement issues. To mitigate these potential risks, the architect and structural engineer devised strategies that included the development of an extensive stormwater-management plan and installation of a new stormwater-retention and -drainage system that incorporates permeable paving, French drains and planter beds.

The addition of all-new insulation and a complete replacement of the legacy

HVAC system with a system that incorporates variable refrigerant flow (VRF) technology improves energy efficiency.

A meticulous restoration of the landmark edifice included preservation of the 71,500-square-foot primary building's distinctive wrought-iron railings and balconies. The addition of custom millwork, trim and door fabrication integrates seamlessly with the structure's historic features.

Construction crews converted more than 12,000 square feet of exterior corridors into private verandas for each guest room. They also restored and reglazed all doors and windows and used French Quarter-style pavers throughout the property to complement the historic brick.

Because three of the five original structures were linked together by a series of multistory exterior gallery balconies, the team devised a new, more efficient circulation plan for the entire complex.

The renovation also included the addition of two new buildings: a 6,000-square-foot multipurpose event space and a pool bar structure that separates the dining courtyard from the pool area.

### Preserving Historical Elements

Many of the distinctive historical elements of the original property were preserved, including the Virgin Mary grotto in the courtyard, a gargoyle sculpture perched atop the clock tower and a marble header inscribed with "St. Vincent's Infant Asylum" positioned at the Magazine Street entrance.

The interior spaces also retain numerous signature design features. The grand staircase and wide sweeping corridors remain intact, facilitating an open layout with expansive common areas, as well as concealed corners for guests to discover. And the staircase has been extended to the third and fourth floors with the addition of a new matching stair.

Historic doors and windows in the chapel area have been restored to their original condition, and remnants from a mosaic tile flooring discovered in the former infirmary served as a design









template for the flooring in a hotel restaurant. Other notable details that were discovered and preserved include the original pine flooring, cast-iron columns and stair landings.

During the renovation, the construction team also uncovered hidden, decorative cast-iron components, along with plaster and millwork details from the orphanage's original chapel. The architect used these salvaged components to recreate millwork details as part of the overall restoration program.

### Eclectic Interior Design

Designed by acclaimed boutique hotel designer Liz Lambert, the interior spaces fuse an eclectic mix of design styles that range from 20th century Italian to Mid-century Modern and Art Deco.

Guest rooms and suites are painted charcoal gray and enlivened by distinctive red-velvet headboards, eclectic objects and custom marbled wallpaper. Some of the rooms incorporate patterned rugs and psychedelic accent walls, which extend into the bright red and pink bathrooms that feature curvaceous white soaking tubs and 1970s-era custom blown-glass chandeliers.

The hotel is home to two restaurants; four bars; three commercial kitchens; and a landscaped, terracotta-tiled courtyard area with a cabana, swimming pool and onsite parking.

The San Lorenzo & Paradise Lounge is a fine-dining restaurant, featuring coastal Italian cuisine with a local Creole twist. Boasting sweeping views of the pool, the grand room features pale-green paneling, painted floors and murals, and custom mohair couches.

Adjacent to the main hotel building is the Elizabeth Street Café, a more casual

*(continues on page 62)*



Designed by acclaimed boutique hotel designer Liz Lambert, the interior spaces fuse an eclectic mix of design styles that range from 20th century Italian to Mid-century Modern and Art Deco.





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The Elizabeth Street Café is a casual French and Vietnamese-style cafe and bakery that spills out into a courtyard garden. Its distinctive design includes velvet-upholstered banquettes and hand-picked vintage furniture and lighting details.

French and Vietnamese-style cafe and bakery that spills out into a courtyard garden. Its distinctive design includes velvet-upholstered banquettes and bar-front panels, custom-designed marble wallpapers, hand-painted murals, and hand-picked vintage furniture and lighting details.

The hotel also houses the Chapel Club, a guest-only bar with design flourishes that include a hot-pink velvet bar front, black-and-white marble countertops, and stained glass and marble accents.

Outside, a bar adjacent to the swimming pool is surrounded by lounge seating, umbrellas and tropical plants in a central courtyard.

Since opening its doors in 2021, the Hotel Saint Vincent has become a premier destination for visitors to the Crescent City and a nexus of the thriving arts community that surrounds the property.

Perhaps more importantly, the award-winning restoration has returned this legendary property back to the neighborhood and to the city at large. [f](#)



## Retrofit Team

**DEVELOPER** // Kupperman Companies,  
www.kuppermancompanies.com

**OPERATOR** // MML Hospitality,  
mmlhospitality.com

**ARCHITECT** // MetroStudio,  
www.metrostudio.net

**INTERIOR DESIGNER** // Lambert McGuire  
Design, www.lambertmcguire.com

**DESIGN-ASSIST CONTRACTOR** //  
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LLC, www.pacegrouppllc.com

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**PLUMBING ENGINEER** // Bernhard LLC,  
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**CIVIL ENGINEER** // Pace Group LLC,  
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**WINDOW RESTORATION** // Picardie,  
www.picardietimberframe.com

**DOOR RESTORATION** // Inhab,  
www.inhabgroup.com

**GLAZING INSTALLER** // DeGeorge Glass,  
www.degeorgeglass.com

**ROOFING CONTRACTOR** // Roofing  
Solutions, roofingsolutions.com

**MILLWORK** // Orleans Custom Millwork,  
www.orleansmillwork.com

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toca flooring.com

## Materials

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**STOREFRONT** // Kawneer,  
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**DOORS AND HARDWARE** // Himmel's,  
www.himmels.com

**TILE FOR STONE TOPS** // Mediterranean  
Tile, medtile.com

**TILE FLOORING** // Keystone Tile,  
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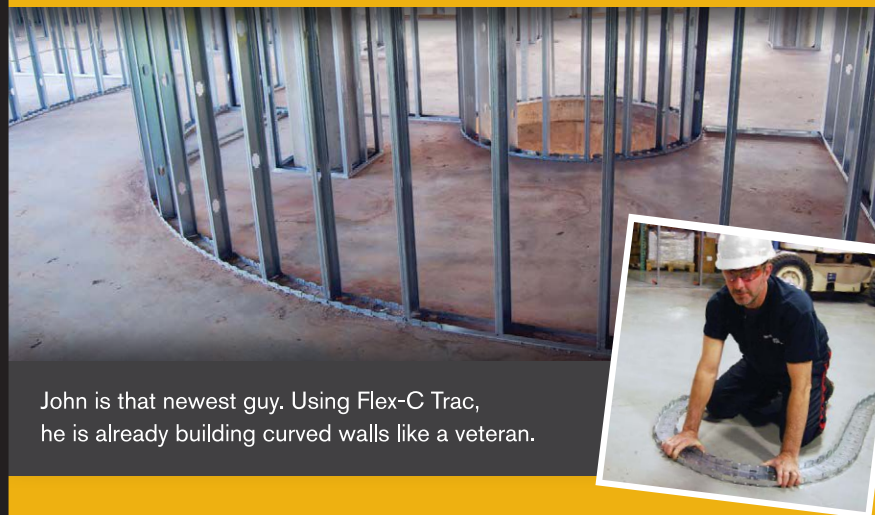
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# The METAVERSE in DESIGN

VIRTUAL ENVIRONMENTS HAVE THE  
POTENTIAL TO CHANGE THE WAY WE  
INTERACT AND THINK ABOUT SPACE

WRITTEN BY | JIM SCHNEIDER



PHOTO: AKACIN  
PHONSAWAT



**T**he idea of immersive virtual environments and online interactions is not exactly new. Talk of the so-called metaverse has come forward in a big way in recent years and captured the popular imagination. Writers, futurists and technologists have posed the idea for decades, but it has always seemed a bit out of reach and felt like the stuff of science fiction. In fact, that is where the idea first originated.

“The term ‘metaverse’ was first coined in a 1992 science-fiction novel by Neal Stephenson called *Snow Crash*,” explains Ritika Kapoor, senior design professional with HOK. “The term described a virtual-reality-based internet that is evolving and is more immersive and populated by avatars. Today I would say the metaverse is 3D virtual spaces where users can shop, play, work, socialize and attend events. It is basically an extension of our physical realm into a virtual realm that we can experience using VR headsets, augmented reality or, maybe in the future, holograms.”

“At the highest level, I’d describe the metaverse as the un-flattening of the internet,” explains Andrew Lane, cofounder of digby, a technology and innovation consultancy for A&D. “We’ve become so used to two-dimensional internet experiences that they’ve become the norm. It’s taken a few decades for technology to reach the place where we can begin to experience the kinds of capabilities the internet unlocks for us, fully in three dimensions. Moving forward, the metaverse will offer more opportunities than ever to seamlessly intersect with and add value to our physical experiences in work and in leisure.”

Movies, like “The Matrix,” portray a virtual environment that is indistinguishable from reality. Of course, current metaverse technology doesn’t have us anywhere near that, but many might be surprised to discover how far it has come.

“If you would have asked me about the metaverse six months ago, I would have said I don’t want to get involved in something that’s just emerging,” says Matthias Hollwich, founding principal of HWKN, a global architectural design firm. “Then I was invited to give a lecture at Pax.World [a platform that enables the creation of metaverse

environments]. I entered the environment and was walking around other avatars. I had to walk down a flight of stairs to get to my lecture hall. It was such an authentic experience. People gave applause and there was engagement about my lecture. There was a seating area and when I came up to a group of people, a camera would pop up and you could then speak directly in real life to someone in another country.”

At that moment, Hollwich truly absorbed the potential power and utility of this technology, recognizing that the metaverse as a concept doesn’t have to be photorealistic to have utility.

“During the pandemic, we all became accustomed to the experience of two-dimensional video conferencing, but entering a 3D immersive experience can really bring us closer together in different parts of the world,” Hollwich says. “Obviously it is different from the real world, which I would call a 100 percent experience. Video conferencing is maybe a 20 percent experience, and I’d say the metaverse is 65 percent. And it’s still emerging.”

“The COVID pandemic really led to a loneliness pandemic, where people felt isolated and depressed,” Kapoor says. “There could be an opportunity for people to feel more connected as these kinds of technologies and even augmented reality and holograms evolve.”

### In Practice

As with any new technology, the metaverse has the potential to impact the way architects and other construction industry professionals do their jobs. This may range from functional items, like providing new ways to look at plans—all the way to impacting the way we approach design in general.



**ARCHITECTS ALREADY ARE VERSED IN THE WORLD OF 3D AND MANY WE SPEAK TO ARE REIMAGINING THE WAYS IN WHICH THEIR CLIENTS AND PARTNERS ARE THINKING ABOUT PHYSICAL AND DIGITAL INTERACTIONS. THE OPPORTUNITY TO CREATE AND UNLOCK NEW KINDS OF UTILITY FOR HUMANITY AND TO DESIGN THE FUTURE OF HOW WE’LL INTERACT WITH ONE ANOTHER IS LIMITLESS AND EXCITING.**

—Andrew Lane,  
cofounder, digby





"Technology already impacts how we interact with clients. You cannot show them a drawing anymore. I haven't presented a drawing to a client for many years. It's all 3D now," Hollwich explains. "In that way, we use something like a micro metaverse in our presentations, but in the future we could go bigger. One person might be in New York and another in Washington, D.C., and you can walk through the same model together."

"Architects can have a very important role in designing the metaverse," Kapoor says. "Architectural design is user-centric, aesthetically pleasing, intuitive and sustainable. These design principals and lessons learned in designing the physical world could be applied in the co-creation of these immersive spaces in the metaverse."

"Over the next 10 years, we'll see important evolutions in how we think about design for integration of physical and digital spaces," Lane predicts. "This will mean more firms looking to bridge the divide with 'phygital' [physical-digital] approaches, firms using 3D spatial environments to

help with the planning and procurement processes, data collection and more. The opportunities are only beginning to make themselves apparent. Along the way, the current limitations of seamless access—goggles as we know will improve and even disappear—and computing power will be solved and open the door to a truly seamless human experience that effortlessly blends the physical and the digital."

Many also believe the metaverse can be a testing ground for different designs. The concept of a digital twin is creation of a virtual model of a physical object that allows for trying things out and testing in safe virtual space.

"The metaverse could be used for experimentation and testing, where we could have clients walk through the digital twin of a building in a virtual environment," Kapoor explains. "You could see how users might respond before building a billion-dollar airport."

## Future Experience

Most would acknowledge at this point our


technology is sophisticated enough to give a tantalizing picture of what the metaverse can be, but there still are limitations related to bandwidth and computing power. Still, there are real-life applications now and most of us have at least dipped our toes into the metaverse in some way.

"These are environments that can be created, curated and simulated, which is really like Google Maps. That is a metaverse. On a global scale, that is a simulation of reality," Hollwich explains. "But it can become more fantastical—like in the gaming world or areas where you can enhance reality and get creative. There is incredible potential for not being limited as a designer to see how far we can push things without, of course, losing people's sense of reality."

"One advantage of the metaverse is it can give you the opportunity to customize your environment," Kapoor says. "This can be very helpful to neurodiverse individuals or people with special needs. They can customize their environment based on their needs even in a chaotic public space. Physical realm and immersive virtual worlds have this potential to support and complement each other as we build toward more equitable, inclusive, open and secure environments."

"This is an opportunity to design an entirely new form of human experience," Lane says. "Whether that's how the future of hybrid work will evolve to the way that homes and social, hospitality or public-event spaces of the future will evolve, the slate is currently blank. Architects already are versed in the world of 3D and many we speak to are reimagining the ways in which their clients and partners are thinking about physical and digital interactions. The opportunity to create and unlock new kinds of utility for humanity and to design the future of how we'll interact with one another is limitless and exciting."

Few would disagree that even though the metaverse as a concept has been around for a while, we are truly only at the earliest stages.

"If we compare a fully realized metaverse to Hollywood, we might be in the silent movie era," Lane continues. "While we already have a real product people can derive value from, we're only at the beginning of the journey." 



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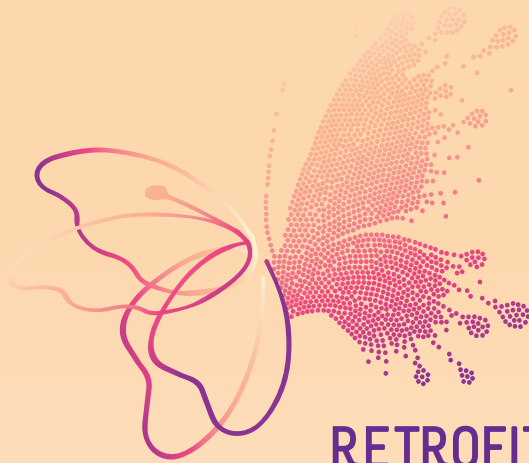
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[lutron.com/athena](http://lutron.com/athena)

## → TILE COLLECTION WILL BE CARBON-NEUTRAL

Crossville has announced the Civilization Collection will be carbon neutral through measuring embodied carbon and purchasing carbon offsets to account for what cannot be immediately reduced for the full life cycle of the product line. Inspired by the unique visuals and textures of basalt stone, the porcelain tile collection is available in six light to dark colorways, featuring crystalline visuals and subtle movement found in basalt formations. The six tones are Census, Communique, Currency, Legality, Populace and Power. Offered in field tiles for residential and commercial applications, the collection includes semi-polished and unpolished options in a variety of sizes: 12 by 24 inches, 24 by 24 inches, and 24 by 48 inches. The collection's mosaic options include a traditional 2- by 2-inch mosaic and unique polygon mosaic. The trim package includes bullnose and cove base selections that provide a large range of application feasibility.

[www.crossvilleinc.com](http://www.crossvilleinc.com)



## ↓ SILICONE-BASED SEALANTS AND ADHESIVES LINE IS DESIGNED FOR PV ASSEMBLIES

Dow has expanded its silicone sealant products to offer photovoltaic (PV) module assembly materials, furthering the global movement toward renewable energy. The newly launched DOWSIL PV product line with six silicone-based sealants and adhesives solutions can be used to deliver durability and proven performance for frame sealing, rail bonding, junction-box bonding and potting, as well as building integrated photovoltaics (BIPV) installation materials. Dow will continue to offer solutions for power electronics applications, inverter encapsulants and the ENGAGE PV Encapsulant product line.

[www.dow.com/solar](http://www.dow.com/solar)



# HYDRAULIC & BIFOLD DOORS

Manufacturing custom designed one-piece hydraulic doors  
and lift-strap bifold doors ... any application ... any size!

Schweiss Doors designed and built the glass bifold doors  
for the Golden 1 Center in Sacramento, CA

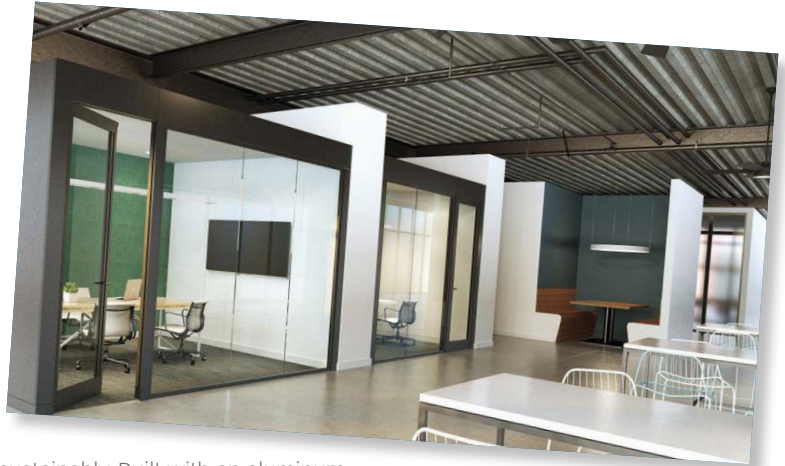
SCHWEISSDOORS.COM



## → ADAPTABLE INTERIOR SOLUTION IS FREESTANDING

Designed with construction-waste reduction in mind, Modwall from KOVA prioritizes assembly rather than creating a pre-defined set of panels and systems. Modwall is an adaptable interior solution that easily can be demounted, redesigned, and remounted to meet changing human and space needs. Its post-and-beam structure and modular panels allow the system to be freestanding in any space, eliminating the need to tie the structure to overhead infrastructure or connect to other walls. As trends evolve and change, Modwall is capable of changing with them, eliminating the need for internal gutting and reducing cost, time and, most importantly, material waste. It can be taken apart easily and relocated or disposed of sustainably. Built with an aluminum exterior and a wall cavity insulated with a sustainable, hemp-based alternative, the product also enhances acoustic performance.

[kovaproducts.com](http://kovaproducts.com)



## ← ACHIEVE CONTINUITY BETWEEN ROOFS, WALLS AND WATERPROOFING TERMINATIONS

Siplast has launched Siplast WALLcontrol Air & Water-Resistive Barrier (AWB) Systems, marking the company's continued expansion into the building enclosure space. The WALLcontrol AWB Systems include wall membranes, critical transition membranes and accessories that provide solutions for above-grade vertical walls, helping to create a continuous air- and water-resistive barrier for commercial buildings and enabling complex transitions from roofing and waterproofing systems. Continuity of air and water management from roof systems, vertical walls, and waterproof-

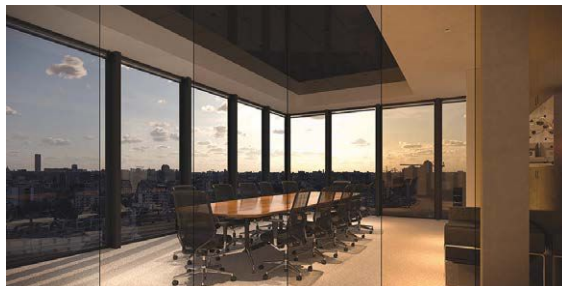
ing terminations is critical for commercial buildings to achieve durable designs, energy-efficient performance, and occupant health and comfort.

[www.siplast.com/awb](http://www.siplast.com/awb)

## ↘ RECESSED DOWNLIGHTS FEATURE DIMMING, TUNING ENHANCEMENTS

Aculux has enhanced its AX series, a family of architectural recessed downlights that provide cut-off and glare control to create quiet ceilings. For the AX3 3-inch LED precision recessed luminaires, designers now can select enhanced WarmDim technology with packages from 800 to 1500 delivered lumens; enhanced Tunable White technology is also offered from 800 to 2000 delivered lumens. When WarmDim is selected, AX3 precision optics are available with a lighting distribution as narrow as 12 degrees. Both technologies also have been introduced to the AX4 4-inch series. Lumen packages from 800 to 1700 delivered lumens are available for WarmDim and 1200 to 2200 delivered lumens for Tunable White. Designers can choose optics with beam distributions from 10 degrees. Aculux's patented WarmDim technology warms the color of the LED light on a gentle gradient as it dims light output, delivering the feeling of halogen lighting with the long life and energy savings of LED.

[aculux.acuitybrands.com](http://aculux.acuitybrands.com)



**The Earth Collection: Moss**

## ↑ INTERLOCKING PAVER SYSTEM EXPANDS COLOR OPTIONS

Aspire Pavers, recently acquired by Brava Roof Tile, has unveiled nine paver colors to its Interlocking Paver System. Joined by the brand's four existing paver colors—Boardwalk, Olive, Redwood and Waterwheel—the new colorways are Charcoal, Ivory and Obsidian within the Stone Collection; Beverly Hills, Burnt Umber and Red Rock within the Terracotta Collection; and Deep Sea, Monstera and Moss within the Earth Collection. Aspire Pavers' patented Interlocking Paver System can be assembled using common household tools, making installation quick, easy and affordable. The system, which is suited for rooftops, balconies, in-ground, resurfacing and more, is available in three sizes—4 by 4 inches, 4 by 8 inches, and 8 by 8 inches—and three variations—Pedestrian Grade Pavers, Vehicle Grade Pavers and Permeable Pavers. The lightweight, durable and fade-resistant paver system includes an easy-to-install drainage mat.

[www.aspirepavers.com](http://www.aspirepavers.com)



## ➔ ENTRANCE SYSTEMS EXCEED U-FACTOR REQUIREMENTS

YKK AP America Inc. has expanded its offering of high-performance thermal systems with the new family of T Series Entrance Systems. Designed to provide a clean aesthetic with a narrow sightline, the T Series Entrance Systems offer design versatility. With stringent energy codes for commercial entrances in mind, the entrance systems now exceed U-factor requirements for even the highest-performing buildings. The family of T Series Entrance Systems is composed of three entrances: the 25T (narrow), 35T (medium) and 50T (wide). Each entrance features a number of options, including 2-inch door leaf thickness; 10-inch bottom rails with seven various options for mid-rails; 1-inch IGU standard, up to 1 1/4-inch available; and mill-free transom kits.

[www.ykkap.com](http://www.ykkap.com)



## ⬅ AUTOMATED FABRICATION ENSURES ALUMINUM PANELS INSTALL QUICKLY AND EASILY

Estes Design and Manufacturing, a full-service sheet-metal fabricator, uses advanced automation and a collaborative approach to produce exterior aluminum architectural panels that install quickly and easily. The firm's fully automated fabrication cell, Max Velocity, starts with the raw material being loaded into the Salvagnini MV Warehouse. Next, traceability information for each bundle of raw material is recorded and stored in the cell's software, following the part throughout the fabrication process. Estes' automated warehouse runs through the cell's center and automatically delivers materials and parts to and from the four pieces of equipment in the cell: two Salvagnini CNC S4 shearing/punching machines, a Salvagnini CNC L5 fiber laser system and Salvagnini CNC panel bender. An additional freestanding Salvagnini CNC P2 Panel Bender is a fully automated machine that bends sheet-metal blanks into their final shapes. Its advanced capabilities allow it to form complex parts in a single setup.

[www.estesdm.com](http://www.estesdm.com)

## ⬇ CAST IRON BOILER SERIES FEATURES ENHANCED THERMAL AND COMBUSTION EFFICIENCIES

Weil-McLain has upgraded designs of the LGB Steam/Water Series 3 and 88 Water Series 3 boiler product lines. DOE regulation 431.87 states that commercial boilers manufactured after Jan. 9, 2023, including knockdown, assembled block and complete package configurations, must meet higher minimum efficiency standards. The LGB family meets those requirements with enhanced thermal efficiencies up to 84 percent and combustion efficiencies up to 81 percent. The 88 Water Series is 2023 DOE-compliant with thermal efficiencies up to 87 percent and combustion efficiencies up to 88 percent. Suited for light-commercial applications, such as multifamily, municipal, education, religious and institutional settings, the LGB is available in steam and water heating designs ranging from 350 to 2470 MBH. The 88 family, which is suited for the same applications, offers a performance range of 960 to 5845 MBH and is available in steam or water boiler configurations with gas, oil and gas-oil fuel options.

[www.weil-mclain.com](http://www.weil-mclain.com)



## ➤ POLYISO FAMILY MEETS REQUIRED THERMAL RESISTANCE VALUES

Elevate's ISOGARD family of high-performance polyiso meets the required and recommended ASTM standard values for thermal resistance. The energy-efficient ISOGARD formula provides cold-weather performance up to 40 percent better than the competition, saving thousands in HVAC costs for building owners and their tenants. Elevate's 1/2-inch polyiso used in ISOGARD HD coverboard has a high density and R-value, making it a strong and resilient option. The foam technology is free of HFCs and has a low global warming potential, as well as provides a better low-temperature R-value performance. Polyiso insulation is stable over a high-temperature range, from about -100 to 250 F, and is compatible with almost all construction adhesives. In addition, ISOGARD HD coverboard is lightweight, requiring fewer workers to move the material onsite, and is easy to cut.

[www.holcim-elevate.com](http://www.holcim-elevate.com)





## → SIXTEEN MILLION COLOR COMBINATIONS AVAILABLE FOR INTERIOR, EXTERIOR LIGHTING

Tivoli Lighting has combined timeless ADAPT glassware with its True RGB+W 3 channel DMX system to provide additional mix-and-match interior and exterior lighting options. Offering all 11 standard 5-inch globes with the addition of three new 3 1/2- and 2 1/2-inch globes, the ADAPT family now offers 14 designer globes, 12- and 24-inch factory-molded standard spacing, two mounting options, and additional light shade choices for interior and exterior commercial and aesthetic architectural lighting. Globes are conformal-coated with shatter-resistant silicone to reduce fragmenting, should the glass break. With Tivoli's True RGB+W technology, the ADAPT system delivers more than 16 million combinations of pure and precise color tones. Its proprietary algorithm controls RGB+W (5000K) LEDs to produce color saturation and true white performance with only 3 DMX channels other than a standard four-channel system. Through DMX512 protocol, individual control of each globe provides a unique and personal environment, and each globe is auto-addressed for fast set-up and connection.

[tivolilighting.com/tivoli-product/adapt-true-rgbw](http://tivolilighting.com/tivoli-product/adapt-true-rgbw)



## ↗ INDOOR / OUTDOOR DIGITAL MENU BOARDS MEET TEMPERATURE, WIND-LOAD RATINGS

CrimsonAV has added several QSR Menu Board options for fast-food restaurants and retail locations. The new line of indoor/outdoor mounts offer a reliable method of communicating a brand's products and services with customers via a seamless mounting solution. The outdoor Digital Menu Board solutions meet IP56 ratings for temperatures of -20 to 122 F and are wind-load rated up to 140 mph. The QSR options were made to support Samsung 55-inch OHF displays within high-impact steel structures. CrimsonAV equipped its QSR series models with a four-outlet quad box and a zero-surge power filter to prevent power failures. All systems can be painted to match a brand's identity.

[www.crimsonav.com](http://www.crimsonav.com)



## ↓ SECURE INFRASTRUCTURE FROM BALLISTIC THREATS

Amulet Critical Infrastructure Inc.'s SafeWrap, SafeWall and SafeVest are proven ballistic barriers that incorporate Amulet Intercept, a next-generation ballistic detection and notification system that uses energy-wave technology to autonomously alert authorities of a ballistic event. Amulet SafeWrap is a state-of-the-art, modular system capable of protecting a vast array of equipment, such as electric-grid substations, from a full spectrum of ballistic threats. Amulet SafeWall, a ballistic barrier system, can be applied to interior and exterior walls during construction or retrofit to provide quick and invisible ballistic protection. Amulet SafeVest safeguards job-site personnel and other infrastructure professionals from injury, including catastrophic equipment failure and active shooters. Embedded within all three products, Amulet Intercept detects, alerts and provides critical data to first responders. The technology can also communicate with drones, robotics, long-range acoustical devices and mass-communication programs to provide an immediate response to threats. The products are tested and certified to meet performance criteria from the National Institute of Justice and Underwriter Laboratories.

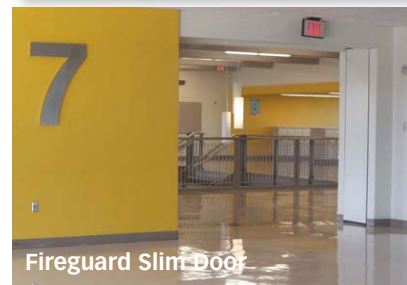
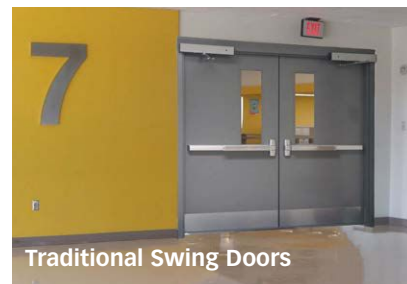
[www.amuletbbs.com](http://www.amuletbbs.com)



## ↓ ACCORDION-STYLE DOOR IS FIRE-RATED

Won-Door has introduced its FireGuard Slim Door model, a cost-effective, fire-rated, accordion-style door designed to eliminate the need for traditional swing doors. The FireGuard Slim Door was created to enhance the design appeal and traffic flow of narrow-corridor and small-opening applications. The door's lack of exposed hardware virtually eliminates maintenance costs. With up to a 90-minute fire rating, the door deploys automatically in seconds when an emergency arises. This allows full visibility of hallways and utilization of the full corridor width. Specifier's options are up to 9-feet wide and 7- or 8-foot tall.

[www.wondoors.com](http://www.wondoors.com)





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MAY-JUNE 2023

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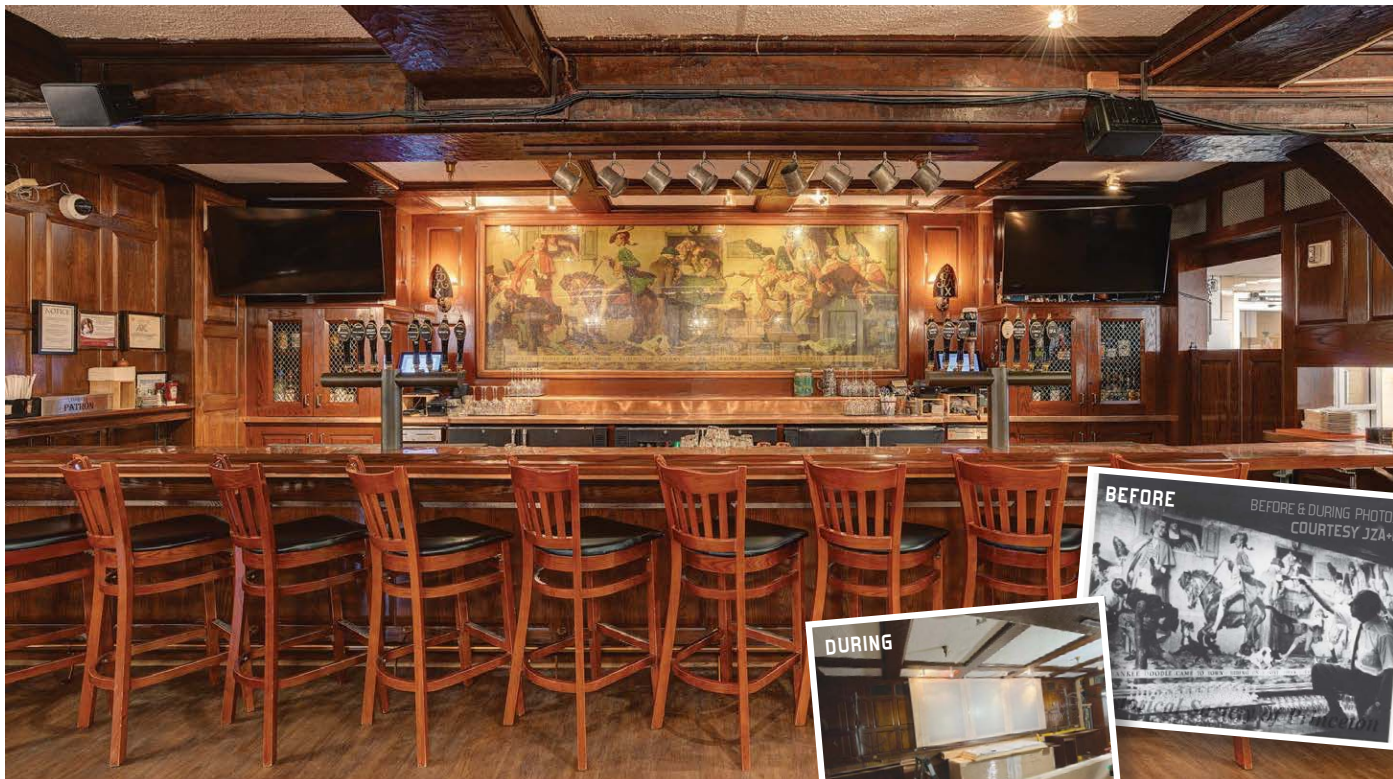


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# A YANKEE DOODLE DANDY

A Norman Rockwell Original, Painted on the Wall of a Tavern, Is Protected During the Barroom's Renovation



Princeton, N.J., locals all know the Tap Room, a legendary tavern with a beloved historic fireplace and a pre-war history as a men-only venue. Now the Yankee Doodle Tap Room, Nassau Inn's most popular amenity, has been completely renovated by local integrated design firm JZA+D, [joshuazinder.com](http://joshuazinder.com), whose architects performed the update while leaving its most iconic element unmoved: a mural-sized painting by Norman Rockwell over the bar, depicting Yankee Doodle riding his pony.

"Our intention was to take it down and store it away safely while we worked," says Mark A. Sullivan, AIA, partner with JZA+D. "But it turns out Rockwell painted it right there in the room on a canvas attached to plaster covering the masonry. We had to leave it in place


and work around it."

One of Rockwell's largest canvases, "Yankee Doodle" was commissioned by investor and philanthropist Edgar Palmer and donated to his alma mater Princeton University. Palmer Square Management, the current owner of Nassau Inn, assumes stewardship of the painting because it can't be transferred without carefully removing an entire masonry wall. The company tapped JZA+D for the renovation of the barroom, having worked with the design firm on multiple retail and interior projects over the years.

The design team restored the bar element to its original linear profile, replacing the worn-out U-shaped bar that was inserted some years ago. The gesture returns the room to its original layout and allows patrons to see the

painting up-close while introducing more room for tables and better access to the fireplace. The new bar was designed and milled off-site, to be assembled in the Tap Room.

Meanwhile, new glass was introduced to protect the artwork during and after the renovation, and the millworker who fabricated the new bar also replicated the painting's original frame.

According to Sullivan, the rest of the project included replacing tap lines, new wall paneling and wood-look plank vinyl flooring specified to improve acoustics. Of the challenges related to the mural, he adds, "It was demanding but not complicated and worth the considerable effort of paying close attention to countless details to preserve this local treasure." 



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**Learn more about Extreme Series doors at [www.cornelliron.com/extreme-series](http://www.cornelliron.com/extreme-series)**

\*When compared to a 10'x10' door with a Logic 5.0™ operator set to an average 8" per second. Clopay® and Extreme Series™ are brands of Clopay Corporation. Logic 5.0™ is a trademark, and LiftMaster® is a registered trademark of the Chamberlain Group Inc. © 2023 Clopay Corporation. All rights reserved.





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