WINTER 2025

# retrofit Home

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# INSIDE THIS ISSUE

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COVER PHOTO:
Ed Wonsek

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# A Book Recommendation

I've been reading at bedtime to my 7-year-old daughter Clare since she was born. There were times when she didn't listen to a word I said, as she crawled around her bedroom but, as she grew, she truly embraced this ritual and now practically demands a nightly bedtime story.

Although she has a bookshelf full of books, we both get bored reading the same ones all the time. We go to the library weekly, and Clare checks out books at her school library, too. I'm also always looking for good book recommendations. Not too long ago, a friend in the industry who happens to be another editor and avid reader, recommended "The Forever Tree". She was reading it to her young boys at bedtime and thought I would like it for Clare.

The book is absolutely beautiful for anyone who is involved in the renovation/retrofit/remodeling industry (and beyond!). It is the story of a tree that was the favorite of the neighborhood animals and people. When the tree died, the animals organized. One of my favorite passages from the book underscores why I'm recommending it to you: "The Raccoons organized an emergency meeting. They had heard of People who knew how to fix things, People who knew how to use their hearts and brains and hands to make things that last forever, special People who believed that something beautiful is always worth saving."

These "special People" are architects, carpenters, artists—YOU. They transform the beloved tree into a treehouse that the neighborhood people and animals could continue to enjoy. The story is based on real events at the Camp Wandawega property in Elkhorn, Wis., and was written by the property's owner, Tereasa Surratt. I cannot say enough good things about this book! It will pull at your heartstrings and share with the littles in your life your pride in this industry and saving beautiful things.

It makes me think of our "Cover Story", page 32. Stone Mill Lofts was a beautiful building even in its first iteration. The 179-year-old mill building in Lawrence, Mass., had been an Industrial Revolution powerhouse. Today, it is a mixed-income residential complex with 86 apartments, thanks to the vision of WinnDevelopment and The Architectural Team Inc. The project—the first of its kind in Massachusetts—meets today's most ambitious energy codes, as well as the National Park Service's stringent historic preservation guidelines. The Passive House-influenced renovation resulted in a tight, all-electric building that beautifully showcases its original structural columns, beams, trusses and decking, as well as fieldstone façade. This is a project, created by "special People" who made it into a beautiful home others can enjoy for many decades to come.

Happy New Year and best wishes for a prosperous and healthy 2025!

**CHRISTINA KOCH**
Associate Publisher/
Editorial Director

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## contributors

Architect **David Phan** is president and principal of New Work Studios Inc., a multidisciplinary architecture firm rooted at the intersection of art and architecture. Phan brings the technical expertise and rigor of institutional design to residential and commercial clients and their projects. As such, he writes about the transformation of a Sacramento, Calif., garage into an accessory dwelling unit, using universal design techniques that allow his client to care for her mother on her property. Read "DesignVibes", page 8.

**Susan Jenks** is a freelance writer based in Chicago. Her 20-year career encompasses real estate, home furnishings, manufacturing and more. In "Townhouse", page 20, Jenks shares the story of a claustrophobic 1980s townhome in Austin, Texas, that was opened to reveal a spacious modern home, overlooking Lake Austin and the distinctive Pennybacker Bridge.

**Ken Shallcross** is vice president of the Modern Architecture + Design Society, for which he has shined the spotlight on some of the best residential projects across North America through writing and the signature Modern Home Tour event series. Among his spotlight projects is Sugarloaf, which had been haphazardly modified several times creating multiple structural deficiencies. Read about the challenging remodel of this Mid-century home, which frames inspiring views of the San Francisco Bay, in "Mid-century House", page 26.

**Scott Maenpaa** is a project manager with The Architectural Team Inc., an award-winning firm based in Chelsea, Mass. With more than two decades of experience in preservation and adaptive-reuse initiatives, Maenpaa tells the story in "Multifamily", page 32, of Stone Mill Lofts, a deep-energy retrofit that has transformed the oldest mill building in Lawrence, Mass., into a mixed-income residential complex with 86 apartments.



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# SACRAMENTO ADU

## Universal Design in an Accessory Dwelling Unit Honors the Past while Planning for the Future

**By David Phan**

In a time when a large portion of our population is aging and the costs of senior care are climbing, families are facing an evolving set of challenges. For many, the thought of maintaining close ties while ensuring quality care is a financial and logistical hurdle.

An accessory dwelling unit (ADU) project in Sacramento, Calif.'s historic North Oak Park neighborhood was born at this very crossroads. The ADU began as a 600-square-foot detached two-car garage but was transformed with the idea of not only housing but embracing the client's elderly mother. The project transformed the underutilized space into a home that would ensure comfort, dignity and autonomy—just steps from the family's primary home.

From the outset, this project embraced universal design principles that place accessibility and the client's mother's needs at the heart of every design decision. Specific design features were carefully selected to meet the mother's physical needs while keeping a potential future occupant's comfort in mind.

## An Eclectic Aesthetic

The ADU's creation was driven by necessity but crafted with sensitivity and intent. The client, who was facing the high costs and emotional strain of housing her mother in an assisted-care facility, envisioned a place where her mother, struggling with Alzheimer's and mobility issues, could find safety and closeness to her loved ones. With the ADU's proximity to the main house, it not only offers connection and independence, but also was designed with a long-term vision: The ADU may one day serve as a rental, adding value to the family's property.

Sacramento's North Oak Park is a vibrant blend of historic homes and modern diversity. In this setting, the ADU needed to respect the character of its surroundings yet stand as its own, unique sanctuary. Instead of replicating the craftsman charm of the main house, the design team had the intent of honoring existing elements of the old garage while incorporating contemporary and industrial themes, creating an eclectic aesthetic rooted in heritage.

BEFORE PHOTOS: courtesy New Work Studios Inc.



Elements, like exposed steel columns that hold up the existing ceiling beam and custom steel-trimmed windows, add a modern twist. The new steel columns were used as support for a screen composed of original double-hung Craftsman windows removed during an upgrade to the main house. The constructed screen delineates between the entry and living space while providing visibility and maintaining the openness of the small space.

The design team had the intent of honoring existing elements of the old garage while incorporating contemporary and industrial themes, creating an eclectic aesthetic rooted in heritage.

All doorways and passageways were designed with generous clearances for wheelchair accessibility, echoing the ADA standards in spirit and intent.

Light became an essential part of the design, particularly in private spaces. Glass bricks were installed in the bedroom and wrap the bathroom's corner to fill the rooms with natural light while maintaining privacy through their abstraction. At night, these glass bricks refract light outward, creating a soft, ambient glow reflecting the activity within these spaces, such as the client helping her mother shower or prepare for bed.

**This small structure not only supports a loved one's journey but also reflects the family's love, resilience and their commitment to embracing life's changes together.**

In the bathroom, a curbless shower with a built-in bench and sturdy grab bars were installed. A low-profile entry threshold and a ramp bridging indoor and outdoor spaces create an environment where movement is unimpeded and safety is prioritized. All doorways and passageways were designed with generous clearances for wheelchair accessibility, echoing the ADA standards in spirit and intent.

## A Space that Honors the Past

Construction began in a post-COVID environment (December 2021) when the market was plagued by scarcity and rising prices. Resourcefulness became part of the aesthetic and was woven into many aspects of the ADU's design. In particular, the project embraced upcycling and intentional reuse as a central component of its aesthetic—not as an afterthought but as a fundamental part of its ethos.

The original garage doors were repurposed as fencing flanking the patio wall, a nod to the structure's past. The columns anchoring the old garage doors are substantial timber pieces salvaged from the garage's storage and thoughtfully repurposed. A tree that once stood in the corner of the property now is the wooden shower bench that happens to be located in the same corner where the tree once stood, creating a symbolic connection between the old and new—a quiet reflection of life's cyclical nature.

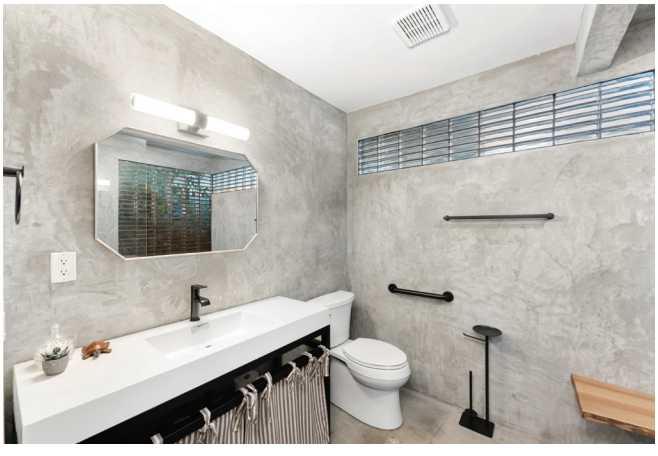
Large, bifolding glass doors open the ADU to a decomposed granite patio, creating an inviting indoor-outdoor connection. This outdoor space serves as a soft boundary, a retreat that bridges the main house and ADU, where the family can enjoy fresh air and sunshine. Above the ADU's entry, a bold purple awning contrasts the neutral bumpy stucco, a cheerful splash of color hinting at the vibrancy within.

Inside, storage was thoughtfully integrated to make the most of limited square footage. Custom millwork offers an organized place for daily use, from displaying family heirlooms and photos to concealing daily essentials without disrupting the openness of the floor plan. The millwork also helps

delineate functional spaces—a workspace/workstation, a spot for books, nook for watching TV—each area defined, yet harmonized within the whole of its overall layout and design.

## Challenges Become Opportunities

From the construction point of view, the project wasn't without challenges, which is expected when dealing with converting old existing structures. The original garage's concrete slab was unreinforced and riddled with cracks, and the garage itself was out of plumb. The existing concrete had to be demolished and re-poured under the existing roof and some of the original foundation had to be underpinned because some of the footings needed to be thickened. The entirety of the existing framing after the demolition phase needed to be cranked until plumb and level before the new structural framing was integrated.



Glass bricks were installed in the bedroom and wrap the bathroom's corner to fill the rooms with natural light while maintaining privacy through their abstraction.

Incorporating universal design with thoughtful, intentional repurposing, this ADU represents more than just a living space; it stands as a testament to adaptability, family and respect for the past. While it will always be a place for the family's mother to age in place with grace, it carries deeper meaning—honoring her presence and the memories rooted in this property. This small structure not only supports a loved one's journey but also reflects the family's love, resilience and their commitment to embracing life's changes together.

**Retrofit Team**

**Architect, Project Manager and Design Builder:** New Work Studios Inc., newworkstudios.com

**Structural Design:** NGM Structural Design Services, nuno.gabriel.maio@outlook.com

**Structural Steel Fabrication:** NTK Fabrication Inc., (707) 363-3931

**Materials**

**Windows:** 100 Series Gliding Fibrex Composite Window with SmartSun Low-E4 from Andersen, www.andersenwindows.com

**Bifolding Doors:** 144 by 80 Black Aluminum 4 Panel Dual Pane Low E from Whole Doors, wholedoors.com

**Integral Acrylic Stucco Finish:** OMEGAFLEX Fine / 9240 Ivory from OMEGA , omega-products.com/product/omegaflex

**Glass Brick:** Rettangoloare Neutro Vetropieno from Quality Glass Block & Window, www.qualityglassblock.com

**Flooring:** Bamboo Flooring and Geowood Bamboo from CALI, www.califloors.com

**Roofing:** Timberline HDZ Shingles from GAF, www.gaf.com

**Water Resistive Barrier:** Jumbo Tex from Henry, henry.com

**Housewrap:** Weathermate Plus from DuPont, www.dupont.com

**Bathroom Grab Bars:** Model 41824-BL-R from Delta, bit.ly/415dv7I

**Shower Transition Threshold:** Schluter-RONDEC Bullnose Edge, bit.ly/4i2grII

**Linear Drain:** Model ZA3-60-T02-BR from Neodrain, www.neodrain.com

**Motion-sensor Light Switches:** Model DOS02-LW from Leviton, leviton.com

**Humidity Sensor Switch for Bathroom Exhaust Fan:** Model DHS05-1LW from Leviton, leviton.com

**Door Lever Hardware:** Contemporary Style Harper Collection from Harney Hardware, www.harneyhardware.com

# CLIFFSIDE ESTATE LIGHTING

## CALIFORNIA

### Retrofit Team

**Lighting Designer and Installer:** Future Automation & Design, www.futureautomationdesign.com

### Materials

Outfitting a backyard with weather-hardy tech, built to defy the power and erosion of gale-force winds, ocean waves and sea salt, is quite a feat. The integration team at Future Automation & Design recently completed one of its most extensive smart-home projects to date, where a combination of more than 600 Coastal Source outdoor light fixtures and speakers would need to stand up to some of the harshest conditions on the California coastline while blending in beautifully with the home's eye-catching landscape and casting elegant illumination throughout the property.

"Rockslides and erosion are common along the area's shoreline, which often necessitates frequent modifications to the construction and design of outdoor living spaces, so we knew the technology solutions would need to be able to evolve and adapt easily to topography changes," says Future Automation & Design President and CEO Patrick Coleman.

Once topography improvements were complete, Future Automation & Design quickly buttoned up the schematics and installation of the speakers and light fixtures, automating them via a Control4 system with Josh.ai voice control. Every inch of the cliffside estate now is illuminated with a wide range of fixture designs, including path lighting, uplighting, niche lighting and flush-mount lighting, as well as blanketed in rich, high-fidelity audio, courtesy of bollard speakers and subwoofers. The lighting design was so extensive, Future Automation & Design tackled it in several phases, starting

PHOTOS: Coastal Source

with the installation of 210 fixtures in Phase 1, 228 fixtures in Phase 2, 139 fixtures in Phase 3 and 50 fixtures in Phase 4. At least 50 percent of the lighting fixtures had to be retrofitted into existing hardscape.

Today, the owners rarely need to interact with the outdoor lighting and audio. The lights activate automatically at sunset, and simple commands spoken to a Josh.ai voice assistant handle the delivery of music and more specific lighting requests. The owners now are using their outdoor living spaces more than ever—for parties, weddings and other social events.

**Outdoor Lighting and Speakers:** Coastal Source, coastalsource.com

## The Retrofit

Built in 1930, the estate is considered a historic and architectural landmark in Los Angeles County. The estate has a rich design heritage, having been previously gifted to the landscape architect brothers that designed Palos Verdes Estates in Southern California and Central Park in New York. Later it was inhabited by art curators, celebrities and even royalty.

# L-SHAPED REMODEL

## VANCOUVER, BRITISH COLUMBIA, CANADA

### Retrofit Team

**Architect:** KOArchitecture, www.koarchitecture.com

### The Retrofit

Built in 1958 and designed by noted Pacific Northwest architect Roland Terry, this house no longer met the needs of contemporary living. Designed around a central courtyard, the L-shaped residence is divided into a private wing, housing bedrooms, and a public-oriented section, holding the kitchen, dining and living areas.

Purchased by a couple who enjoys entertaining, the house held great appeal—tall ceilings, exposed natural fir-tree columns and expansive glazing. Typical of its era, however, the home featured relatively small rooms that were closed off from one another and limited visual connections within the house, as well as to the site itself. Topping the list of problem areas was the kitchen, which was buried deep within the house and disconnected from daily life.

A multi-phase remodel focused on consolidating the kitchen, dining and living areas, enhancing the home's connections to nature and updating the design to clarify Terry's original concept while enhancing day-to-day living. The kitchen was relocated, pulled from behind a wall to occupy a space on axis with the entry hall. Existing wood cabinets were reworked to create a galley-style open kitchen with island bar seating for entertaining. A set of custom stainless-steel upper cabinets are set atop the wood cabinets, serving double duty as the terminus to the hallway.

The space previously occupied by the kitchen was transformed into a walk-in pantry capable of supporting catering functions. The hallway wall, behind which the kitchen was originally located, was transformed into a Mondrianesque grid that artfully conceals a powder room and closet. The 80-foot-long perimeter wall flanking the newly reworked kitchen/dining/living area now features operable glass doors, which almost completely opens the living space to the backyard, pool and garden.

Other updates include adding a 20-foot-long skylight topping the hallway leading to the bedroom wing, a new garden greenhouse, new multifunctional fence/storage wall that holds a modest pizza kitchen and new carport made from materials salvaged during the renovation.

PHOTOS: Sozinho Imagery


BEFORE PHOTOS: courtesy Jay Corder Architect

PHOTOS: Andrea Calo unless otherwise noted

# CLEVERLY INTEGRATED OFFICE

## AUSTIN, TEXAS

### Retrofit Team

**Architect:** Jay Corder Architect, www.jaycorder.com

### The Retrofit

The owner, Julia Clark, bought the 100-year-old property when looking for office space, thinking she could use the upstairs as her residence and the downstairs bedrooms as offices for her CPA business.

When she bought the home, it had been stripped to its studs and sat that way for years while the previous owner decided what to do with it. With strict neighborhood restrictions governing any renovation, she had to convince the community of homeowners to allow for a home office in their midst.

The house fronts West Avenue, a neighborhood of small historic bungalows in central Austin, and appears on first impression to be a comfortable, livable and sophisticated

home. A closer look reveals an office that has been cleverly integrated into the plan and living space. A surface area with a high counter tucked into the living room is actually a reception desk. The living room doubles as an office lobby, and the dining room, separated by glass doors, provides a private conference room. Storage concealed in the hallway's wood paneling hides office documents. The kitchen functions as the center of activity and staff gathering space, and the bedrooms are bright, sunlit offices.




The house accommodates an office and its staff in the same amount of space as it would a traditional family. Architect Jay Corder used the sequencing of rooms as a starting point and allowed the original plan's compartmentalized spaces to work to the renovation's advantage. He says the main challenge with the traditional layout was getting natural light and a sense of openness into the central spaces. Skylights in the stairwell share light with the central double-loaded hallway and, subtle gestures, like open railings, lighten the architecture to create a spacious-feeling ambiance, even as the spaces are clearly delineated.

The delicate renovation made the kitchen slightly larger and added a powder room, but Corder mostly worked with what was there, layering in the office functions unobtrusively. The new upstairs spaces include the primary bedroom and bath suite, as well as a playroom and bedroom for Clark's special needs daughter. The basement, carved into the low side of the sloping site, adds a second living room and bedroom, to be used as guest quarters with a separate entrance at the rear.

The arrangement allows for true work-from-home benefits, as well as flexibility and comfort for Clark and her family. It elegantly blurs the lines between live and work, as well as creates a new model for what is possible when rethinking traditional workplace structures and employment scenarios that better accommodate a balance between home and office.

# HEATING/COOLING A HISTORIC FARMHOUSE

## INDEPENDENCE, KY.

### Retrofit Team

**HVAC Installer:** Call Now Heating & Cooling, callnowhvac.com
**HVAC Wholesaler:** Corken Steel Products, corkensteel.com

### Materials

The following products were manufactured by LG, lghvac.com:

- Multi F Max with LGRED°
- Low Wall Console
- Low Static Ducted
- Distribution Box
- Y Branch Connector
- Wi-Fi Module with LG ThinQ Compatibility
- Standard III Wired Remote Controller

### The Retrofit

Originally a log cabin in the 1700s, the house has been transformed over the centuries with structural elements, updates and modern comforts added along the way. The renovations, including a large expansion in the 1920s and a handful of recent modernizations, have kept the home livable through the generations.

The current owner, Dr. C.J. "Jay" Hellmann, was six-years-old when he moved into the house. His fond memories of growing up on the farm are coupled with memories of sweating through the summer months. As Hellmann prepared the home for his daughter and son-in-law to move into, he focused on making the house more comfortable by finding effective and efficient ways to heat and cool the living areas.

The farmhouse was steam-heated by a large, inefficient oil furnace in the basement and did not have ductwork or an air conditioner. Hellmann and his family felt the lack of air conditioning acutely during Kentucky's humid summer months, which frequently experience temperatures above 90 F.

The family sought an HVAC solution that would fit their needs without compromising the farmhouse's historic aesthetic. Hellmann is the owner of Call Now Heating & Cooling and determined an all-electric inverter heat pump system would involve fewer adjustments to the home's footprint and architecture. A whole-home solution using two Multi F Max with LGRED° units was specified to deliver customized comfort to every part of the house. One low-static ducted unit can heat and cool the first level, and six low-wall ductless console units can condition the second floor.

The first-floor units use minimal duct runs installed through the floors and into the basement, where the old boiler system

PHOTOS: LG

was located. Rather than installing multiple ducted systems for heating and cooling throughout the farmhouse, the team ran refrigerant and power/communication lines discreetly through the attic for the low-wall console units in the upstairs rooms and sunroom and utilized an unused laundry chute to run lines into the basement and outdoor units. The low-wall units' appearance blends nicely with the farmhouse's style, and their flexibility and small footprints meant they could be placed with consideration for the rooms' designs.

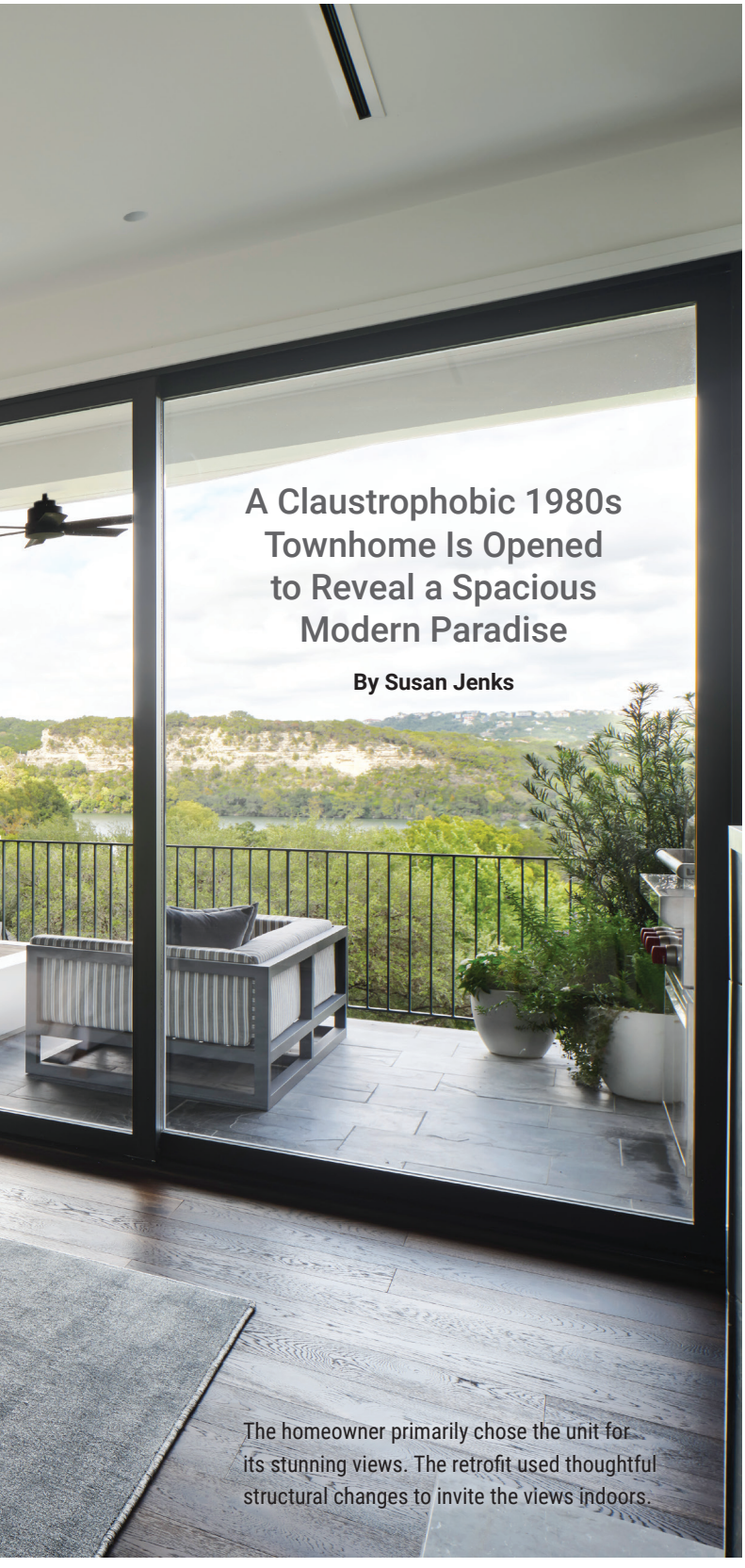
All-electric heating means Hellmann no longer pays for oil to heat the home in Kentucky's cold winters. With the old furnace, he'd spent nearly $1,500 every 30 to 40 days for oil. Now, with the all-electric system, he pays about a quarter of that, even in the coldest months.

Zoned comfort control also contributes to energy savings. Using thermostats, remote controls and smartphone applications, the family can set each zone in their home to a different temperature or even turn units off, depending on the room's use and occupancy.

"We're able to have cool air in a house that's 200-years-old and has never had cool air before," Hellmann notes. "This was the first summer you could sit in here and be totally comfortable, have fresh air and comfortably use different rooms. It has made the house more livable, much more useful and much more comfortable."

# REFINED, MASCULINE AND *Timeless*

PHOTOS: Andrea Calo unless otherwise noted



# A Claustrophobic 1980s Townhome Is Opened to Reveal a Spacious Modern Paradise

**By Susan Jenks**

The homeowner primarily chose the unit for its stunning views. The retrofit used thoughtful structural changes to invite the views indoors.

The homeowner of this 4-story, 2,800-square-foot townhome primarily chose the space because it overlooked Lake Austin in Austin, Texas, and the distinctive Pennybacker Bridge.

However, the structurally and aesthetically outdated 1980s townhome continuously revealed new challenges, demanding forward-thinking solutions that met HOA constraints.

With architectural and design plans approved, Texas Construction Company was selected as general contractor. The Austin-based team delivered next-level problem-solving and expertise to create a sophisticated, low-maintenance residence that left the '80s firmly in the past.

## Reinventing an Outdated Floorplan

The townhome's outdated design and materials posed significant issues that had to be addressed before any modern enhancements could be made.

- The floor plan was closed and compartmentalized with outdated finishes that limited the breathtaking views.
- The mechanical, electrical, and plumbing systems had reached the end of their lifespans and required replacement.
- The framing—while meeting the standards of its time—was undersized and lacked the durability to support the open, spacious layout envisioned in the new design.
- Alignment issues throughout the structure left walls and floors that were neither level nor plumb.
- Outside, the existing stucco did not include proper drainage mats or flashing details, which created significant sheathing rot.
- The hillside location and height of the building complicated the logistics of demolition, framing, and stucco work. Scaffolding the rear of the building became the most cost-effective solution to manage these tasks safely.


BEFORE PHOTOS: Texas Construction Company


Above: The existing main living area was large but felt dark and contained. New sliders, which required substantial structural support, achieve the spaciousness the homeowner was seeking.

Left: The original staircase design established a dark, walled-in entryway, but the reimagined layout includes an airy staircase that creates a flowing, welcoming space.

## Navigating HOA Restrictions

A first challenge was adhering to strict HOA guidelines, which required the townhome's envelope to align visually with the other units in the complex. This meant that certain design changes needed to be negotiated.

For example, the HOA initially resisted the addition of balcony lighting and changes to the railing design. However, through negotiation, the homeowner was able to introduce minor exterior updates that not only modernized the unit, but also were well-received by neighbors, who later adopted similar enhancements.

To ensure durability, the outdated stucco was replaced with an assembly that included proper flashings, weeps, weatherproofing and drainage mats—upgrades that drastically improved the weather resistance and longevity of the exterior. The new materials also aligned with contemporary building standards, providing improved moisture management and better insulation.


The kitchen had been closed off and separated. The new layout fully maximizes the space and view and, with new marble surfaces, soundproofing maintains serenity.

## Opening the Interior

The townhome's main floor was reimagined to create a more open, seamless connection between the indoors and outdoors. This design choice allowed an uninterrupted view from the front door straight through to the expansive back patio, overlooking the lake and bridge.

To achieve this effect, the renovation included the installation of large slider doors to the patio. These doors, however, introduced new challenges: To create substantial openings for the doors, structural steel supports were needed to reinforce the load-bearing walls. This required the deconstruction of the entire rear wall and temporary supports for the floor joists.

It was worth the effort. The result was a spacious, airy main floor where the patio and living room flow effortlessly into one another, creating a unified space ideal for entertaining or relaxation.

One of the design goals was to create a minimalist, elegant staircase that didn't obstruct views through the unit. The original staircase remained in its location, but modifications included removing a dividing wall on the second story, allowing for a more open line of sight across the unit to the lake. Brass-capped stair rails and dramatic wood panel accents were added, creating a sophisticated focal point that harmonizes with the overall design aesthetic.

The third-floor primary suite also was redesigned to maximize the panoramic lake views. A second set of slider doors was installed to open the suite to a sleek sitting area, providing a tranquil spot to enjoy the scenery.

A new luxurious ensuite bathroom includes a standalone bathtub, large shower and wall of windows for the same sweeping lake views as the sitting area. To accommodate a spacious walk-in closet, an addition was built over the garage, further enhancing the suite's functionality and appeal.

**The structurally and aesthetically outdated 1980s townhome continuously revealed new challenges, demanding forward-thinking solutions that met HOA constraints.**


Above: A second set of large slider doors transforms the primary bedroom into a luxurious suite.
Below: An addition over the garage created space for an enviable walk-in closet.

## Integrating Modern Technology

In keeping with the homeowner's vision of a modern pied-à-terre, the townhome was outfitted with smart-home technology for lighting, climate control and security.

A lighting system was installed that allows the homeowner to control lighting scenes from an app, adapting brightness and mood based on different times of day and activities. The wireless system reduced the need for additional cabling, simplifying the retrofit while expanding versatility and functionality.

The HVAC system was upgraded to a zoned setup, allowing temperature control for each floor independently. This zoning ensures that the homeowner can maintain comfort across multiple levels without requiring extensive ductwork or compromising the new design aesthetic.

Other essential systems also were upgraded during the retrofit: New plumbing replaced aging water and


The primary bath combines nature and elegance with a dramatic wall of windows and high-end finishes.

wastewater lines, and natural gas was added to the home to support updated appliances. The electrical system was overhauled with new wiring, subpanels and main panels to accommodate modern power demands. Ventilation was enhanced, providing cleaner air and better energy efficiency.

In addition, soundproofing was a key consideration, particularly in a multi-story, shared-wall setting. Additional insulation was added between floors and along shared walls with neighboring units, significantly enhancing privacy and sound attenuation.

With new marble surfaces in the kitchen and living room, these soundproofing measures also helped reduce echo and noise transfer between levels, creating a serene interior environment.

## The Finished Look

With the technical challenges resolved, the final design embraces the homeowner's warm yet sophisticated aesthetic, blending luxurious materials with meticulous detailing. High-gloss millwork, dark wood floors, brass accents and marble surfaces create a refined look that is modern and timeless.

Today, this townhome is an elegant, low-maintenance lakeside retreat, seamlessly combining advanced modern features with timeless design. The transformation is a testament to the potential of even the most challenging retrofit projects when vision, technical expertise and innovative solutions come together.

**Retrofit Team**

**General Contractor:** Texas Construction Company, txconstruct.com

- Royce Flournoy

**Interior Designer:** Maison & Bouquet, www.mandbinteriors.com

- Christina Shipley

**Materials**

**Large Slider Doors:** LaCantina, www.lacantinadoors.com

**Lighting System:** Legrand, www.legrand.us

**Zoned HVAC:** Trane, www.trane.com

**Outdoor Railing:** Steel House Mfg., www.steelhousemfg.com

**Walk-in Closet System:** California Closets, www.californiaclosets.com

**Standalone Tub:** Victoria + Albert, houseofrohl.com/victoria-and-albert

**Bathroom Fixtures:** Newport Brass, www.newportbrass.com

**Dishwasher:** Bosch, www.bosch-home.com

**Refrigerator and Freezer:** Thermador, www.thermador.com/us

**Ice Machine:** Scotsman, www.scotsman-ice.com

**Range, Hood and Outdoor Gas Grill:** Wolf, www.subzero-wolf.com

**Drawer Refrigerator and Bar Fridge:** U-Line, www.u-line.com

**Drawer Microwave:** Sharp, www.sharpusa.com

**Wine Cooler:** Sub-Zero, www.subzero-wolf.com

**Washer and Dryer:** Electrolux, www.electrolux.com

# UNEXPECTED *Improvement*

## A Confused Structure Is Shaped into a Coherent Mid-century Modern Home

**By Ken Shallcross**

Perched atop a hill in Marin County, Calif., a 4,280-square-foot, five-bedroom home, known as Sugarloaf, provides its residents amazing 270-degree views of the Golden Gate Bridge and San Francisco Bay. In fact, the location is so spectacular that it is rumored the Dali Lama owned the home for about 10 years.

Built in the 1960s, the house had been carelessly modified through the years to adopt the elements of California's Mid-century Modern style, but it remained very closed and boxy inside. In addition, the modifications were so haphazard that the structure had morphed into a tortured and seismically




PHOTOS: Jamie Leasure unless otherwise noted

In the entry, in preparation for aging-in-place, a pneumatic vacuum elevator was installed to connect the upper and lower floors.

BEFORE AND ELEVATOR PHOTOS: DNM Architecture

unstable agglomeration of past structures and additions with a second story literally built on the roof of the first story. The result was multiple structural deficiencies.

## A Change in Plans

The clients asked Architect David Marlatt, principal/founder of DNM Architecture, and his team to open the interiors and maximize the home's geographical benefits (bring in those views!); create a real primary suite on the second floor; and redo the outdated, dimly lit kitchen.

However, it didn't take long to discover serious structural flaws lying beneath the surface. When the kitchen ceiling was opened, the renovation team discovered the second-story addition had been built over the previous roof without removing any of the tar roof. Additionally, the added upper floor was not connected properly to the walls of the already existing lower floor, which made the house in its then-current state extremely unstable in an earthquake. To make matters worse, some of the existing lower-floor walls were just sitting on the concrete slab without proper footings, and there was a considerable amount of dry rot further weakening the walls and base structure.



On axis with the front door and across the foyer, the sweeping views of San Francisco and the entire Bay Area are immediately on display, thanks to large windows and a folding glass door.

At the top of the rebuilt modern staircase is a walkway bridge that spans the front entry, giving a grand view from the second floor.

As a result of this discovery, the scope of the project was changed to include an extensive structural update.

Because part of the original plan was to open the interiors, some existing interior walls were already scheduled to be removed, and steel beams were to be installed to ensure proper seismic stability. Now, however, the first and second floor have been properly framed and joined from the inside using hold-downs and straps to correct the poor construction and dangerous hinge connections. The dry-rotted wood found around sill plates, windows and roof eaves that had resulted from improper sealing was also fully removed and replaced.

The original intent was to reinvent the home into the modernist architecture dwelling it aspired to be. Although this mission never changed, the structural update has secured the home properly and corrected all previous faulty and dangerous construction.

## New Design

The redesign centers around a welcoming 2-story entry that anchors two wings of the home. The home's existing footprint did not change, except for the new foyer created by pushing the front door out and removing some faux roof elements to make the wall flush. Visitors now enter through a stunning atrium, walled almost entirely by glass. On the right side of the atrium opposite the stairs, in preparation for aging-in-place, a pneumatic vacuum elevator was installed to connect the upper and lower floors.

On axis with the front door and across the foyer, the sweeping views of San Francisco and the entire Bay Area are immediately on display. The strong indoor-outdoor connection in the living room is made with large windows and a three-panel accordion folding glass door. The view continues as the eye reflexively sweeps to the right to take in the dining room defined by a peninsula fireplace room divider.


A wall separating the dining room from the modernized kitchen was removed, improving flow and natural light.

A wall separating the dining room from the modernized kitchen was removed. The difference is striking in the efficiency of flow and space (not having to pass through a narrow doorway) and the abundance of light (now uninhibited by a wall).

To the left of the entry foyer, a hall leads past the rebuilt staircase to a separate family room, a pair of guest rooms and two remodeled bathrooms.

The second floor was overhauled to fulfill the clients' dreams of a true primary suite: They now have a full wing of the home to themselves. At the top of the rebuilt modern staircase is a walkway bridge that spans the front entry, giving a grand view from the second floor. To the left, the new luxurious primary bedroom sits opposite a spa-like primary bathroom, which includes dual sinks, dual toilets, a large

In the primary bath, large windows in front of each bathroom sink put the north bay on full display.

walk-in shower and a balcony with a view. Each spouse also has his or her own custom-designed walk-in closet. This is truly a space for the owners to relax, rejuvenate and get ready for the day; in fact, large windows in front of each bathroom sink put the north bay on full display.

Two additional bedrooms and a bathroom complete the second floor.

The exterior of the home also received a modern update. Remnants of the original single-story roof were removed, and the home received a new coat of bright white stucco—a color change from the previous beige. Windows were completely replaced throughout, and minor repairs were made to the roof to complete the visual transformation of the main home. A pool and detached accessory dwelling unit are in the planning phases and will complete the composition.

## Transformed

Architecture tells a story, whether intentional or not. This project is the story of a neglected house that has been reinvented into a confident home with two wings flanking a core entry and living room in a most welcoming gesture. Its large windows frame inspiring views of the San Francisco Bay while generous roofs express both shelter and exuberance. Sugarloaf is finally the modernist home it was intended to be.

**Retrofit Team**

**Architect:** DNM Architecture, dnmarchitecture.com

**Contractors:** Filshie Enterprises, filshieenterprises.com, and Endora Builders, www.endorabuilders.com

**Structural Engineer:** WM Structural Engineering, www.wmstructural.com

**Civil Engineer:** DeBolt Civil Engineering, www.deboltcivil.com

**Interior Designer:** Martin Kobus Home, www.martinkobushome.com

**Materials**

**Appliances:** Miele, www.mieleusa.com

**Floors:** European Oak from Johnson Hardwood, johnsonhardwood.com

**Cabinets:** Durabella Custom Cabinetry, durabellaca.com

**Windows and Doors:** Ultimate from Marvin, www.marvin.com

**Bath Faucets:** Loure and Ribbon from Kohler, www.kohler.com

**Bath Sinks:** Kohler, www.kohler.com

**Fireplace:** Ortal, www.ortalheat.com

**Suspended Lighting:** Perpetual from ET2 Contemporary Lighting, www.et2online.com

**Stucco:** LaHabra, lahabrastucco.com

**Elevator:** PVE, www.vacuumelevators.com

**Structural Straps:** Simpson Strong-Tie, www.strongtie.com

# A GREENER *Path*



BEFORE PHOTOS: courtesy The Architectural Team Inc.

# At Stone Mill Lofts, the Past, Present and Future of Adaptive Reuse Meet in Unexpected Ways

**By Scott Maenpaa**


PHOTOS: Ed Wonsek unless otherwise noted


For decades, historic adaptive-reuse projects have offered a crucial means for architects and their clients to embrace sustainability—by preserving existing structures and their embodied carbon and by reducing demolition and construction waste, among other benefits. Yet as ever-more stringent energy codes push the industry toward higher levels of operating efficiency and building performance, the sustainability balance might seem to be tipping toward new construction. Right? Not so fast: The good news for retrofit teams is that industry leaders are finding fresh ways to help old buildings learn new tricks.

In fact, one of the Northeast's most energy-efficient, all-electric new apartment developments isn't actually a new building at all: It's 179-years old. Called Stone Mill Lofts, this recently completed conversion and deep-energy retrofit has transformed the oldest mill building in Lawrence, Mass., an Industrial Revolution powerhouse 30 miles north of Boston, into a mixed-income residential complex with 86 apartments. Remarkably, this project—the first of its kind in Massachusetts—meets today's most ambitious energy codes, as well as the National Park Service's (NPS') stringent historic preservation guidelines.

And as the dual crises of affordable-housing shortages and climate change converge across the country, diving into the details of Stone Mill Lofts offers a valuable case study in how architects and other retrofit teams can prioritize sustainability and decarbonization—both embodied and operational—while preserving landmark building assets and enhancing housing affordability.

## A Forward-looking Approach to Energy Efficiency, Catalyzed by Tragedy

The 149,220-square-foot, 4-story building now called Stone Mill Lofts was constructed between 1845 and 1848. The building utilized the local Merrimack River to manufacture tools, machinery for other factories, water turbines and millwork for the textile factories that made this region the center of America's Industrial Revolution. Despite the storied past, like many such industrial properties, the building had sat empty for years by the time current owner WinnDevelopment purchased the site in 2021, bringing longtime design partner The Architectural Team (TAT) Inc. on board as architect.

Crucially for the project's sustainability outcomes, this potential revitalization coincided with an important shift within the community. In 2018, a gas explosion rocked Lawrence and the Merrimack Valley region, leading to the creation of the public-private Merrimack Valley Renewal Fund, which, through its Building Excellence Grant Program, was seeking pilot projects for innovative electrification initiatives. Stone Mill Lofts became the first large-scale development to participate in the program with additional funding from local, state and federal government sources and private investors.

PHOTO: Courtesy Winn Development

The project team chose a double-hung, triple-glazed window unit with low-emissivity coatings that exactly matched the form and dimensions of the original windows.


With funding now in place, the challenge became delivering on the electrification goals while meeting stringent NPS preservation guidelines. From the design team's perspective, tightening the building envelope was the first—and absolutely essential—priority. The approach centered on maximizing insulation at the walls, roof and first-floor slab, limiting the amount of uninsulated wall area overall and finding ways to extract the highest possible performance out of NPS-mandated historic-replica windows.

## Strategically Layering in High-performing Elements

The Stone Mill Lofts building was especially well-suited to a Passive House-influenced approach. Unlike many historic mills where the interior walls are simply raw stone or masonry, in this case a substantial amount of interior area had originally been finished with plaster walls. This existing condition encouraged NPS to sign off on the project team's proposed solution, which called for retaining exposed stone in first-floor common areas and amenity spaces and adding insulated furring within the residential units and accessory use areas on upper levels.

Moving full-speed ahead, for the newly insulated wall areas, the project team chose a framing system based on 1-inch offset wood studs, which substantially reduced thermal bridging compared to light-gauge metal framing. Next, the team applied continuous 2 1/2-inch high-density closed-cell foam insulation directly to the stone walls and behind the studs. In addition to functioning as an air seal and moisture barrier, the specific depth is vapor-permeable, which eliminates the


Onsite amenities include an expansive resident lounge and kitchen, billiards room, a fitness center with interactive equipment and a yoga nook, children's playroom and more.

potential for freeze-thaw cycles to heave the existing and new mortar joints. It is also reversible, as required by NPS standards. Ultimately, the combination of framing and insulation allowed these walls to achieve an impressive overall R-22 with R-18 being continuous insulation. Similarly, the project team installed high R-value thermal barriers at the attic floor and slab-on-grade assemblies.

In managing this preservation and performance balancing act, windows proved to be one of the project's more challenging aspects. NPS requirements meant the project team had to match the appearance, size, configuration, proportions and profiles of more than 400 old windows while achieving the energy model's desired U-Factor of 0.28. This figure was crucial because it would in turn influence the size of the Variable Refrigerant Flow (VRF) HVAC systems and other key downstream systems-level decision-making.

After its first choice was rejected by NPS, the project team chose a double-hung, triple-glazed window unit with low-emissivity coatings that exactly matched the form and dimensions of the originals. While this solution allowed greater air infiltration, the levels were still acceptable and proved a reasonable compromise. The project team also replaced nearly 40 historic skylights with low-emissivity-coated, double-sealed insulated panes, broadening the building's reduced energy consumption.

With the new insulation and windows in place, the project team was able to right-size mechanical systems and specify highly efficient heat pumps to provide heating, cooling and hot water. The HVAC solution comprises a dedicated outdoor air system (DOAS) and energy recovery ventilator (ERV). Utilizing these in concert allowed the project team to improve indoor air quality while reducing heating and cooling costs because these systems provide continuous, fresh outside air

The design team sought to preserve the building's historic character and bring it into the present to create a compelling apartment community that will last for another 100 years.

while harnessing the energy from exhausted air to condition incoming air. Ultimately, the fossil-fuel-free design is expected to use 46 percent less energy and emit 33 percent fewer greenhouse gases than a typical gas-fired multifamily structure, saving 177 metric tons of avoided greenhouse gas emissions each year.

### From a Derelict Shell, Crafting an Inspiring Residential Environment

At the same time as the project team worked to meet Stone Mill Lofts' ambitious performance goals, a parallel aim was preserving the building's historic character and bringing it into the present to create a compelling apartment community that will last for another 100-plus years.

This work took several forms. Some of it was infrastructural. Given the flood-prone riverfront location, the project team raised the ground-floor slab 1 foot to avoid potential damage from severe weather events. The sloping nature of the site also allowed for amenity spaces to be strategically placed at subterranean locations along the west side, so the exterior stone wall could be left exposed with limited energy loss. Inside the building, the original structural columns, beams, trusses and decking were restored and left exposed to the greatest extent possible. Outside, the fieldstone exterior façade was gently cleaned, removing decades of soot and urban pollution, to restore the stones' subtle pink and red tints. The project team raked and repointed mortar joints to minimize possible water infiltration during rain events, and the original roofing slate was replaced, using locally sourced tiles quarried in Vermont to exact size specifications.

**Remarkably, this project—the first of its kind in Massachusetts—meets today's most ambitious energy codes, as well as the National Park Service's stringent historic preservation guidelines.**


Amenity spaces were strategically placed at subterranean locations, so the exterior stone wall could be left exposed with limited energy loss.

In terms of its residential program, Stone Mill Lofts now holds 86 rental apartments. Of these, 58 units are reserved for households earning up to 60 percent of Area Median Income (AMI); 11 apartments are set aside for those earning up to 30 percent AMI; and the remaining 17 apartments are rented at market rates. The development team chose this particular unit mix to offer opportunities for a wide range of possible residents, from younger people to families to empty-nesters. Each of the units benefits from large

window openings and the thoughtful integration of existing historic elements, such as exposed, original wood-beam ceilings; shiplap; and historic wood trim.

Onsite amenities include an expansive resident lounge and kitchen, billiards room, a fitness center with interactive equipment and a yoga nook, children's playroom, indoor and secure bicycle parking, resident storage lockers, work-from-home pods, secure package room, nicely landscaped outdoor areas and a patio. Perhaps the most special moment comes in the first-floor elevator lobby's viewing window, where residents are surrounded by the newest technology and yet can look at what appears to be an old black-and-white photo but is, in fact, a direct view into the original water-intake room for the turbines. It's a window back in time that allows people to appreciate the building's past by seeing the height of technology from when the mill first opened its doors.

What appears to be an old black-and-white photo is, in fact, a direct view into the original water-intake room for the turbines—a window that allows people to appreciate the building's past.

## A Rewarding Project, an Example to Follow

From the development and design team's perspective, one of the most exciting aspects of the Stone Mill Lofts project is that it truly pushes the envelope for what preservation efforts could look like in the future. With the right partnerships and local, state and federal funding incentives, it's possible to provide cutting-edge affordable housing that exceeds all expectations as to what affordable housing is supposed to look like. And for retrofit teams everywhere, that the adaptive reuse of a pre-Civil War-era building is leading the way for all-electric, energy-efficient housing is an achievement to celebrate. If Stone Mill Lofts is any indication, the past still has a future.

**Retrofit Team**

**Architect and Interior Designer:** The Architectural Team Inc. (TAT), www.architecturalteam.com

**Owner:** WinnCompanies, www.winncompanies.com

**Historic Consultant:** Public Archaeology Lab Inc., www.palinc.com

**Sustainability Consultant:** New Ecology Inc., www.newecology.org

**General Contractor:** Keith Construction Inc., keithconstruction.net

**MEP Engineer:** R.W. Sullivan, www.rwsullivan.com

**Structural Engineer:** Odeh Engineers, now WSP, www.wsp.com

**Materials**

**Windows:** Series 1060 Commercial Triple Pane DH Window from Universal Window and Door, www.universalwindow.com

**Exterior Walls / Roof Deck Air Barrier Spray Foam:** XtremeSeal 2.0 LE from Mass Green Group, massgreengroup.com

**Interior Walls Thermal Batts:** EcoBatt from Knauf, www.knaufnorthamerica.com

**Roof Blown Cellulose:** FRM 100 from Greenfiber, www.greenfiber.com/products/frm-100

**Outdoor VRF Heat Pumps (PURY), Indoor VRF Fancoils (PEFY/PLFY), Indoor VRF Air-handling Units (PVFY) and Branch Circuit Controllers (CMB):** Mitsubishi, www.mitsubishicomfort.com

**DOAS/ERV:** Pinnacle Series from SEMCO, www.semcohvac.com

**Hot-water Heat Pump:** Lync AEGIS 500 from Lync by Watts, www.lyncbywatts.com

**Hot-water Heaters/Storage Tanks:** PVi Durowatt from Watts, www.watts.com

**Glycol:** DowFrost Heat Transfer Fluids from DOW, www.dow.com

**Electric Fireplaces:** Scion from Heat n' Glo, www.heatnglo.com/fireplaces/electric/built-in/scion-electric-fireplace

**Light Fixtures:** Terrain and Vapor Echo PET from Luxxbox, www.luxxbox.com

**Plumbing Fixtures in Unit Bathrooms:** Wynford from Moen, www.moen.com

**Rubber Base:** Pinnacle from Roppe, roppe.com/pinnacle-rubber-base

**Roofing Slate:** North Country Black from New England Slate, newenglandslate.com

**Skylights:** FCM Fixed Skylights from VELUX, www.veluxusa.com

## Smart Toilet Is Design-forward

The Veil smart toilet from Kohler boasts ease of cleanliness and bidet technology in a sleek, contemporary style. Design-forward, the Veil is available in a chic, honed black colorway, sculpted with flowing and balanced curves. A stainless-steel bidet wand offers warm-water cleaning with adjustable spray shape, position, water pressure, temperature, pulsate, and oscillate functions for anterior and posterior positions. A soothing warm-air drying system with adjustable temperature settings provides additional comfort. The self-cleaning function uses UV light and electrolyzed water systems to sanitize the bidet wand surfaces. A full suite of convenient features includes a heated seat, nightlight, hands-free opening/closing, and automatic flush, plus a touchscreen remote. Pump-assisted flushing delivers peak flush performance every time.

bit.ly/3Zgb8xG

## Cement Tiles Capture and Mineralize Carbon Dioxide

Boutique tile company LiLi Tile is transforming the century-old craft of cement tile creation with a groundbreaking new process that enables the tiles to actively capture and mineralize carbon dioxide when drying. LiLi Tile is the only tile company offering carbon-absorbing cement tiles. Not only does LiLi Tile have a large catalog of designs and styles, but the company also custom designs tiles so if a homeowner wants to recreate an original tile or design a unique story, Lili Tile can make his or her dream a reality.

lilitile.com

## Glass-panel Garage Door Stacks for an Open Ceiling Space

Clopay Corporation has introduced the VertiStack Avante garage door, an aluminum and glass residential garage door with sections that stack vertically above the opening to provide a clear, open ceiling space. The glass panels bring in daylight to fill interior spaces when the door is closed and expand the residential footprint when it opens. There are a variety of glass options to let as much or as little natural light inside as desired. The door's compact design keeps lines and angles to a minimum and cleverly hides key mechanisms. It has no visible hinges, cable or overhead track for a crisp, clean look. The stacked sections project minimally off the wall, so the door doesn't interfere with ceiling fans, lighting and overhead storage.

www.clopaydoor.com/vertistack-avante

## Siding Is Engineered for Extreme Weather

With extreme weather events becoming more common, residential communities throughout the country are at higher risk for damage caused by high-velocity winds, extreme temperatures and torrential rainstorms. Ply Gem Variform Vortex Extreme vinyl siding is engineered with extra-thick 0.046-inch panels to withstand hurricane-force winds up to 220 mph—equivalent to those seen in a Category Five hurricane. Rigorously tested, the siding features Weather Warrior Technology, which combines innovative engineering and chemistry for superior performance that holds tight against Mother Nature's worst. Variform Vortex Extreme is Miami-Dade County certified and approved.

www.plygem.com/siding/variform/vortex-extreme

## Tile Brings Animal Prints to Life

Emser Tile has unveiled a new series under Enhance by Emser Tile, a line of specially designed, trend-forward, high-end, difficult-to-find tile solutions. As a nod to the developing trend of nature-inspired designs, Emser has released Zambia, a rich, exotic tile that pushes biophilic designs forward. Zambia brings exotic animal prints, including Croc, Leopard, Python, Zebra and more, to life. Through a meticulous additional firing process, luxurious gold glazing is etched into the tile, creating a high-gloss finish that glows with refinement. Whether creating a daring focal point or transforming an entire room, this collection provides endless possibilities for residential and commercial spaces alike.

www.emser.com/collections/enhance

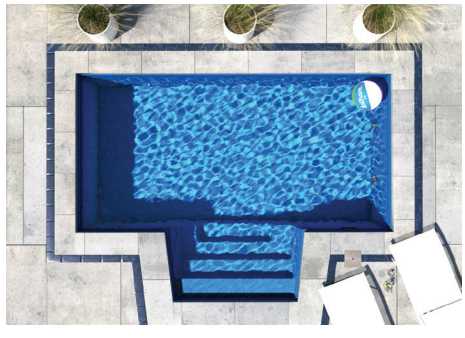
## Cook and Charge on the Same Surface


Smart Kitchen by Gamadecor (part of the Porcelanosa group) brings kitchen design into the future: Cooking while using wireless appliances on the same worktop is now possible. At the core of the Smart Kitchen is its innovative concealed cooking plate, equipped with dual technology, which is hidden under the surface. This new technology allows for greater flexibility and fluidity between work areas, turning the worktop into a stovetop or wirelessly powering household appliances. A sleek, user-friendly touchscreen integrated into Porcelanosa's porcelain slab countertop allows users to control small compatible countertop appliances. These appliances are wirelessly powered through proximity to the hidden power source, which delivers up to 2,000 watts. An integrated induction charger for mobile devices is also available.

www.gama-decor.com/en

## Small Pools Can Be Customized

Latham Group Inc. has unveiled a line of plunge pools designed to bring leisure and luxury to backyards of any size. Smaller than a full-size pool, these models are just the right size for lounging, relaxing, intimate entertaining or quick relief from the heat. And because of their smaller size, Latham Plunge Pools are suitable for those seeking easy maintenance. Crafted with the highest quality materials, the Latham Plunge Pools collection includes two fiberglass models and a vinyl liner series, all available with customizable features, such as tanning ledges, full-width benches, integrated swim-up seating, bubblers, cascades, LED lighting, auto covers and more.



plungewithlathampool.com

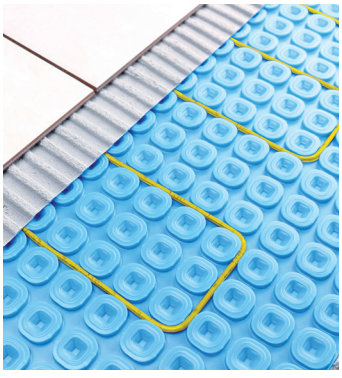
## Folding Door Offers Enhanced Durability

NanaWall's NW Clad 740 offers an innovative folding door solution that combines sleek design with durability. Part of the brand's latest product family, Generation 4, the Clad system sets a new standard for performance, safety and aesthetics in the industry. NW Clad 740's slim profile is comprised of quadruple laminated cross-grained wood in the interior and durable aluminum cladding on the exterior, offering exceptional energy efficiency and weather performance. The clip-on cladding technology allows the wood to breathe, providing rear ventilation for moisture dissipation, which enhances the system's durability. Sustainably harvested, single-species solid wood cores further support the structure's integrity, ensuring it stands the test of time.

www.nanawall.com/glass-walls/folding/nw-clad-740

## Cabinetry Can Be Tailored to Specific Tastes

Fabuwood, a semi-custom cabinetry manufacturer, offers a range of styles, materials, and finishes, providing high-quality cabinetry tailored to the specific tastes and needs of customers across America. The brand aims to make building a luxury kitchen attainable without compromising on comfort, quality and efficiency. The company adheres to industry-leading certifications and standards, ensuring product durability and reliability through its Q12 guarantee and in-house testing. Fabuwood's commitment to quality cabinetry extends to its employees' daily work habits with "device-free" meetings and workspaces, leading to improved productivity and engagement.
www.fabuwood.com



## Floor Heating Cable Includes Hash Marks for Easy Measuring

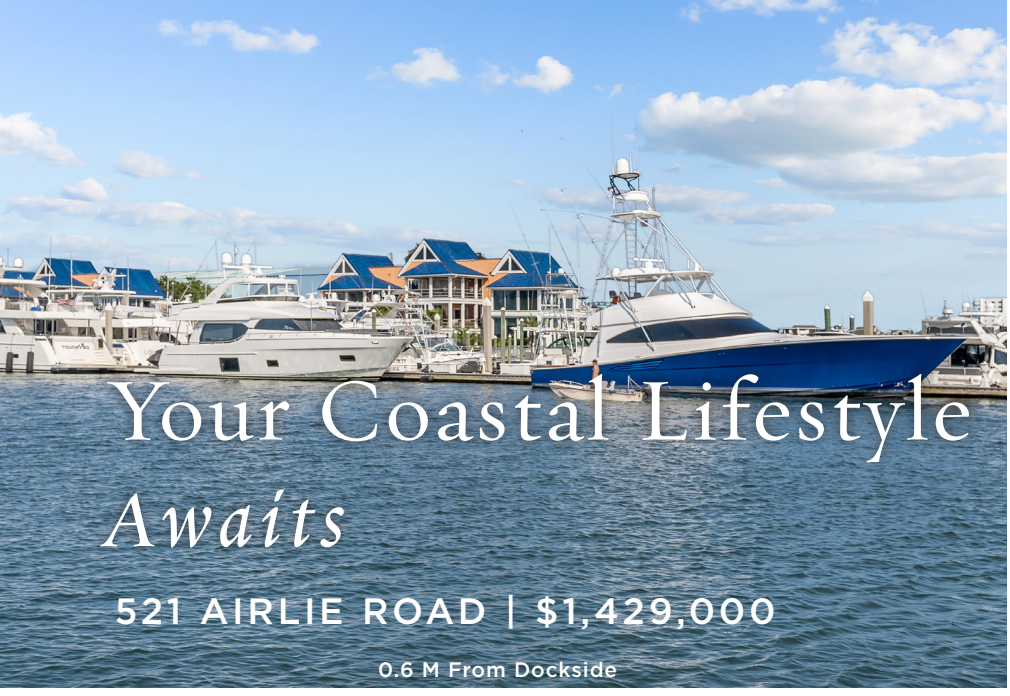
WarmlyYours has released the TempZone Floor Heating Ruler Cable, which includes easy-to-read hash marks at every 1/2-inch, 1-inch and 1-foot increment. This design, along with a free SmartPlan installation plan from WarmlyYours, will ensure the installer is using the proper amount of cable while laying the system out. It also ensures the heating elements are in the proper location for even heating coverage for the end-user. The ruler cable is meant to be embedded in thinset or self-leveling compound beneath a wide range of floor coverings, like tile, marble, stone, LVT and more. The cable provides 3.7 watts per linear foot (9- to 15-watts per square foot, depending on spacing). Composed of crush-resistant ETFE (fluoropolymer) core insulation and a high-temperature PVC jacket, the cable has exceptional flexibility in nearly all directions.
www.warmlyyours.com/en-US/products/line/floor-heating-temp-zone-ruler-cable

## Knobs and Pulls Boast Industrial Flair

Atlas Homewares has released the Reeves Collection, which includes a range of chic knobs, pulls and appliance pulls. The 45-piece collection boasts a subtle industrial design with a slim handle that smoothly flares into a wider base. The pieces are available in brushed nickel, matte black, polished chrome, slate and warm brass.
www.atlashomewares.com/collections/reeves.html

## Aluminum Railing Features a Minimalist Look, Hidden Fasteners

Feeney has made available DesignRail Modern, a sleek, modular aluminum railing system, engineered for simplicity. DesignRail Modern's components easily snap and screw together. One of the standout features is its hidden fasteners, which are tucked under a flat handrail for a clean aesthetic. Additionally, the minimalist look is enhanced by eliminating the bottom rail and offering long spans of up to 8 feet, significantly reducing the need for additional posts, allowing for uninterrupted views and a more open, expansive feel in any outdoor living area. An optional DrinkRail adapter, for a top rail wide enough to hold a drink, and LED lighting-ready mounts, designed to accommodate ambient-lighting installations under the top rail, complete the system.
feeneyinc.com/product/aluminum-railing/design-rail-modern



# Your Coastal Lifestyle *Awaits*

## 521 AIRLIE ROAD | $1,429,000

0.6 M From Dockside

Airlie Road

0.6 M From the Marina at WB

Renovation Design Example

*An exclusive opportunity in the most coveted area of Wrightsville Beach, the prestigious Wrightsville Sound neighborhood, just steps from Airlie Gardens.*

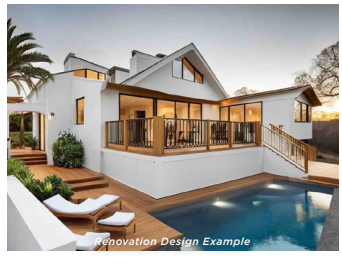
**- Renovate the existing home or custom build your luxury estate**
**- No HOA—freedom to design your vision**
**- Ample space for a carriage house, pool, ADU, or private coastal retreat**

Situated on the peaceful sound side, this rare property offers serenity away from the hustle and bustle, yet close to the one of the most desirable areas in Wilmington. A short stroll or bike ride to the area's best restaurants, shopping, dining, and beach activities, while relishing the privacy of your coastal retreat.

Nearby homes on 0.20-acre lots are selling for $2.4 million and above. Imagine the possibilities with over three times the space—a rare 0.67-acre lot offering unmatched value, flexibility, and potential.

*Prime location. Endless possibilities. Exceptional value.*

Create your masterpiece in Wrightsville Beach's most sought-after coastal enclave. Come see why life is better at the beach.



Renovation Design Example

0.3 M Away From Airlie Gardens


Joy Yascone
*Broker | Realtor®*

919.904.5918
Joy@IJCoastal.com
IJCoastal.com


IVESTER JACKSON
COASTAL PROPERTIES

CHRISTIE'S
INTERNATIONAL REAL ESTATE

# Statement Stair

## A Reimagined Entrance Stair Creates More Space in a New York Apartment

After a few years of living in their unique duplex apartment in the West Village, the Padia family decided to rework the entry—a central double-height stair hall. An existing wood and glass straight-run stair bisected the space. It wasn't visually appealing, and it created a cramped, inefficient entry hall and an overly large, underutilized landing at the floor above. The family hired The Turett Collaborative to develop a unique staircase and improve the layouts around it.

Studying many different stair configurations through sketches, digital renderings, and hand-built and 3D-printed models, the team settled on an organic curved stair profile that sweeps through the double-height space. The departure and landing points of the stair allowed for the reconfiguration of the adjacent spaces on the lower and upper floors, creating room for a proper entrance hall and enlarging one of the children's bedrooms upstairs.

The curved stair is encased in a plaster shell—a tight spiral at the inner curve and a large convex shell at the exterior—"squeezed" by the adjacent walls and bulging toward the dining room and windows beyond. The result is a statement-making entry into and through the apartment with a staircase design that continues to reveal itself at each turn.

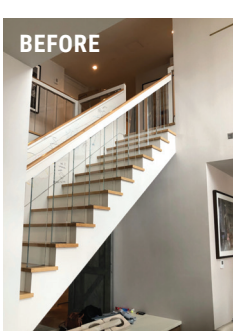



PHOTO: courtesy The Turett Collaborative

PHOTOS: Adam Kane Macchia unless otherwise noted

**Retrofit Team**

**Architect:** The Turett Collaborative, www.turettarch.com

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