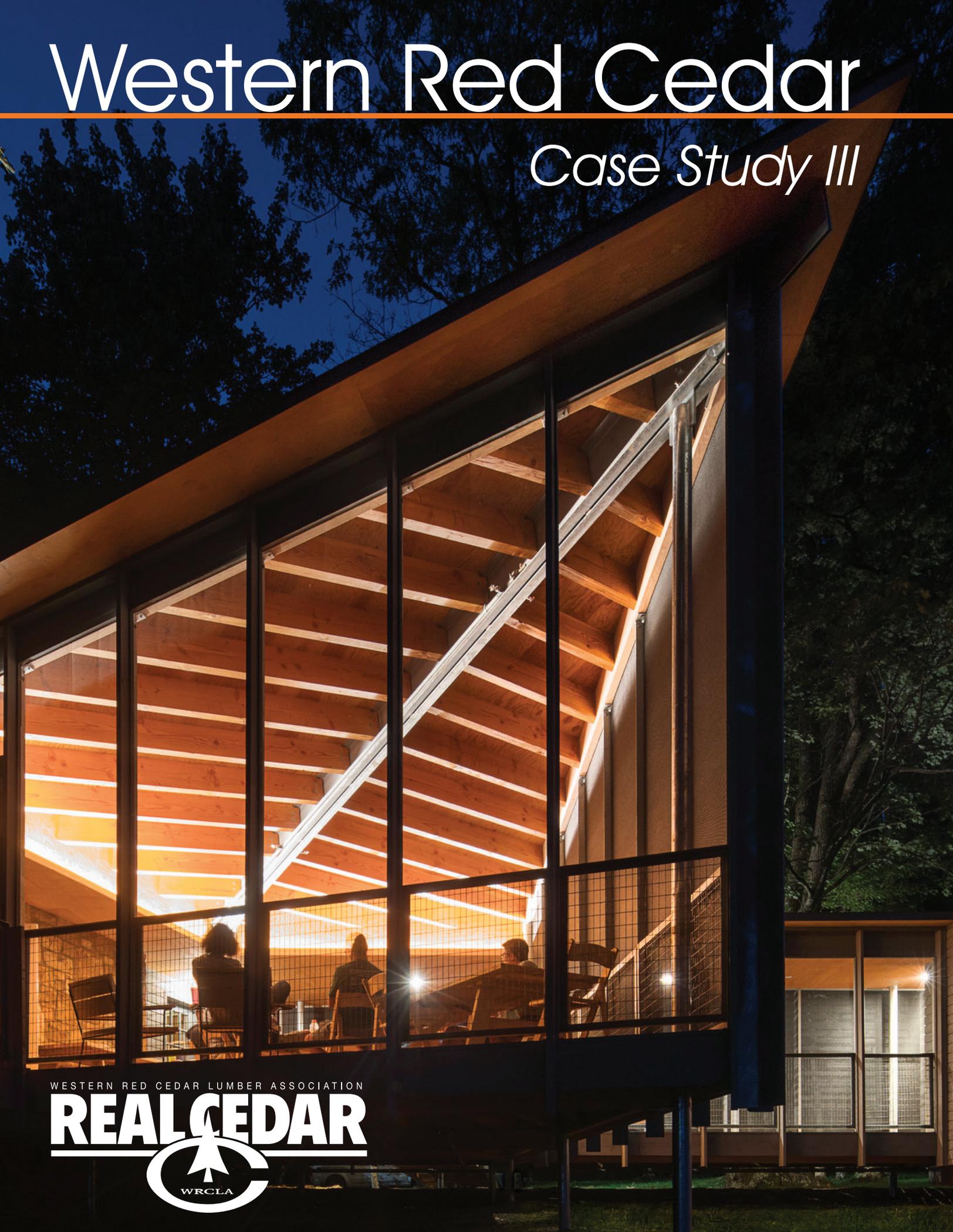


Western Red Cedar

Case Study III



WESTERN RED CEDAR LUMBER ASSOCIATION

REAL CEDAR



Architects, builders and homeowners are drawn to Western Red Cedar for reasons that include its beauty, character, function, affordability and light environmental footprint. But where can prospective users learn about Western Red Cedar's attributes? And once inspired to proceed, where can they source the product and learn how best to install it? Explore these questions in the following case-study examples:

High Meadow at Fallingwater



Between forests and fields, this project uses Western Red Cedar to create harmony within its rural setting and impart an appreciation of the natural world around it while minimizing disturbance to the site.

Maple Grove Park



The focal point of an urban green space, Western Red Cedar lends a lodge-aesthetic and resilient properties to this pergola and warming house, where traditional and contemporary design features come together.

Station Tavern



A heritage restoration, this project embraced the versatility and cost effectiveness of Western Red Cedar, where the wood provided the human element of a refurbished public house.

Helping architects, builders and homeowners consider Western Red Cedar is the mandate of the Western Red Cedar Lumber Association (WRCLA). The decision to select Western Red Cedar involves an awareness of the product and some combination of:

- An appreciation of its attributes,
- An understanding of how to correctly use and/or specify the product, and
- Knowledge of where to source it.

Cover image by Nic Lehoux

High Meadow Dwellings at Fallingwater

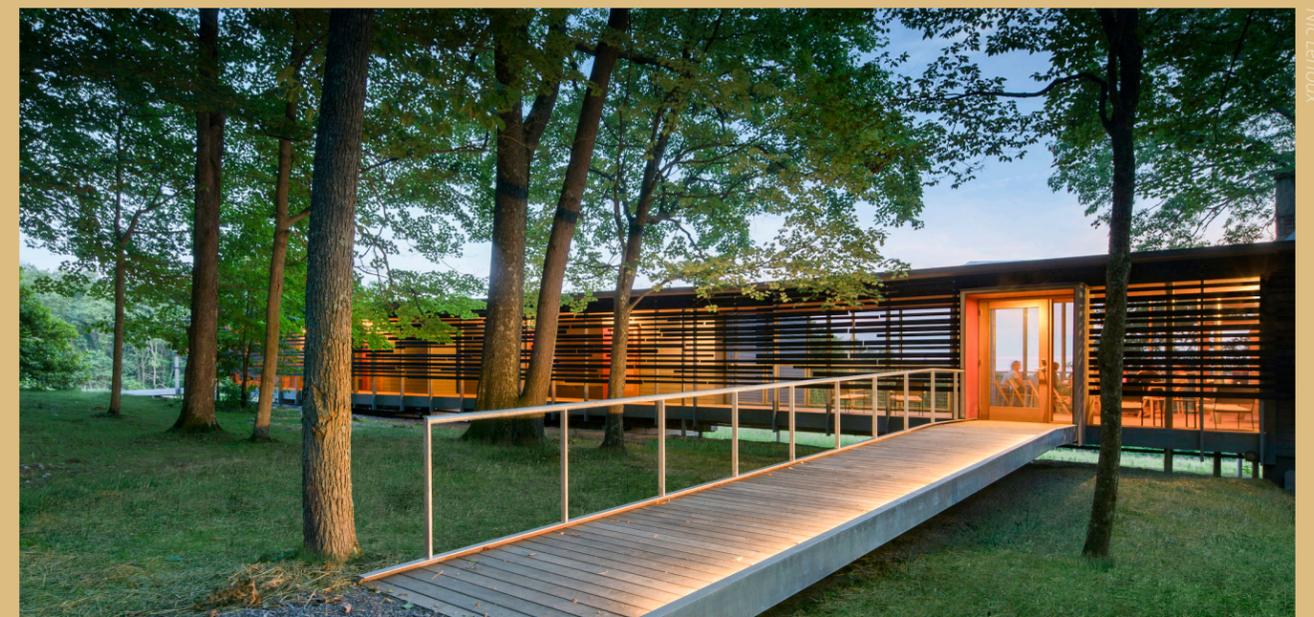
Bohlin Cywinski Jackson – Architects
Mill Run, Pennsylvania, USA

Located on a historic farm adjacent to Frank Lloyd Wright's renowned Fallingwater residence in Mill Run, Pennsylvania, High Meadow Dwellings at Fallingwater serves as a home base for students of Fallingwater Institute's summer residency programs in architecture, art, and design.

The facilities, which are positioned between forest and fields, consist of an original four-bedroom 1960s cabin and four newer units, plus a screened porch connected to the main entry for outdoor gathering and dining space.

High Meadow was intended to complement its rural setting in both form and function, and it provides students of all ages the opportunity to be inspired by space that exists in harmony with its setting.

One major element that serves as visual inspiration originated in 2015 during the design stage of the four new units, when it was decided that Western Red Cedar would be an ideal material to fulfill aesthetic as well as durability needs.



Nic Lehoux



Nic Lehoux

Design Considerations

Although Fallingwater has for over 20 years sponsored on site residency programs, by 2015 the Institute decided that the original split-level cabin was not large enough to meet future program demands.

Bohlin Cywinski Jackson, the Pennsylvania-founded architectural practice best known for its iconic designs for Apple stores globally, was retained to expand lodging with four dwelling units tied to the main facility via a shared porch and walkway.

In creating the units, the architects remained faithful to the overall goal of restoring, preserving, and fostering an appreciation of the natural world. In order to reduce the project's physical footprint, they positioned the new units above ground on a network of steel columns, with a simple wooden walkway rising from the forest floor to the elevation of the new porch. This screened porch was designed to have a vaulted wooden ceiling and provide views of the meadow and hills beyond. A dark slatted wall would stitch the four units and the porch together with the original cabin, and a screened walkway would lead from the porch to each dwelling – altogether imparting a sparse elegance entirely in keeping with the natural surroundings.

Wood was the prime material for the expansion project: cork flooring is used throughout, and walls and ceilings are made of marine grade BCX plywood; a horizontal screen of Norway spruce—harvested and milled on site—is located outside of the four units, and the cabin exteriors are clad in cedar stained shale gray.

The Real Cedar Solution

Bohlin Cywinski Jackson is hardly a stranger to Western Red Cedar: it has been using the material extensively for decades for its visual appeal and resiliency, attributes the architects say are superior to that of cedar found on the eastern seaboard.

Specifically for this project, architectural knotty-grade Western Red Cedar was used for its predominant grain structure and the silvery-grey patina it would take on over time, for the porch, window frames, and doors.

This grade of wood was stained semi-transparent grey for the siding, and its use both as an interior as well as an exterior element helped provide visual unity to the entire High Meadow site.

All of the porch trims are of Western Red Cedar, but due to its instant accessibility, structurally graded Douglas-fir was used for the ceiling beams.



Nic Lehoux

awards



Silver Award for Architecture, American Institute of Architects, Pennsylvania Chapter - 2016.

Assistance for Architects, Builders and Home Owners

Bill James, project architect for Bohlin Cywinski Jackson, credits the Western Red Cedar Lumber Association for on-going help and support throughout the design and construction phases of the High Meadow expansion.

The architects conversed with Paul Mackie, the WRCLA's Western Area Manager, "on a regular basis," and Mackie was also relied upon to provide samples of different wood cuts and finishes – a critical service as this would enable the architects to complete the design palette.

The WRCLA also helped Bohlin Cywinski Jackson during the spec development stage by providing resources for screening patterns, as well as information related to sourcing fasteners and siding nails (textured head nails were ultimately chosen to deflect light and because they would be recessed into the siding); it also advised on staining options.

James notes that his company sought advice from the WRCLA throughout the construction phase of the project, from August 2015 to May of 2016, and he credits the Association's vast knowledge base for making his team "very confident" about using Western Red Cedar in a variety of applications in the future.

The expansion of High Meadow Dwellings is a classic case of Western Red Cedar being used along with other wood species to impart a 'less is more' visual aesthetic, with materials and finishes being deliberately simple and durable, and their use pared back to impart the sense of sparse elegance desired by the owners. Fallingwater Institute is now able to double its reach of programming, while creating only minimal disturbance to the historic site.



Learn More

Technical Support for Cedar

Western Red Cedar Lumber Association

www.realcedar.com/about/contact/

Paul Mackie (West) Toll Free: 1-877-316-8845 | mackie@realcedar.com

Jay Poppe (East) Toll Free: 1-479-652-1843 | poppe@realcedar.com

Western Red Cedar Sample Kit

Western Red Cedar Lumber Association

www.realcedar.com/architects-builders/order-architect-sample-box/

Recommended Fasteners For
Western Red Cedar

Western Red Cedar Lumber

<https://www.realcedar.com/outdoor/installation/>

Maple Grove Park Warming House & Pergola

U+B Architecture & Design, Inc. - Architect
Maple Grove, Minnesota, USA

When its development was completed in September of 2015, Central Park of Maple Grove, Minnesota provided Maple Grove's evolving downtown civic, retail, and residential core with a lush, energized urban green space that builds upon an extensive pedestrian trail system and chain of lakes.

Almost immediately, the park generated national media attention as an iconic regional destination, with 40 acres of recreational amenities including a 2.5 acre event lawn, formal gardens, custom playground, and a 25,000 square foot ice skating loop, the first of its kind in Minnesota.

Capping all of this is a spectacular pavilion/warming house with concessions as well as an adjacent pergola, the structures of which fulfill the mandate of the city's Parks and Recreation Board to achieve a lodge aesthetic combined with a more contemporary take on the warming house function.

Western Red Cedar was used predominantly throughout this project to unite these two disparate aesthetics as well as for its resilient properties in this unique outdoor setting.



Andrea Rugg Photography



Andrea Rugg Photography

Design Considerations

U+B Architecture and Design Inc. had to fulfill the needs of multiple stakeholders while working on Maple Grove Central Park, including those who wanted traditional looking structures and those seeking a contemporary take.

To enhance walkability throughout the park, U+B had to create views that would connect visitors throughout the sprawling site with architectural components designed to address park programming. The overall design essentially creates a community of buildings, each serving a specific function while maintaining its individual identity and yet united by a common palette of materials.

Edie Sebesta, senior associate at U+B, points out that to a degree, the architecture was inspired by the landscape of Maple Grove, which had traditionally been a farming community. Accordingly, the architects' vision of the park's structures would manifest itself in features such as steeply pitched roofs and the extensive use of wood. Canopies would play a vital role in connecting buildings to the rest of the site and providing gathering spaces for the public.

Early on, it was decided that Western Red Cedar would be a primary building and finishing material, and this facilitated the choice of complimentary materials such as dark masonry and Alabama limestone, as well as metal roofing of the type typically used in barns.



Andrea Rugg Photography

The Real Cedar Solution

U+B's architects have worked with cedar many times on past projects, and the wood was a logical choice for a public space that would see year-round visitations. Plus, given Minnesota's harsh winters, Central Park buildings required a key material that would not only endure the elements but take on an intriguing patina as it aged.

Sebesta explains that Western Red Cedar bridged the gap between tradition and modernism that the stakeholders were seeking: for example, its use as a ceiling material in public spaces imparted the warmth associated with traditionalism and still allowed the architects to create clean, minimalist spaces and forms. Tongue and groove cedar as a canopy underlining also united these structures, and connected the interiors with the exterior.

The primary space of the warming house features an interior cedar ceiling, each panel of which was finished off-site and then installed with a clip system that accommodated felt strips for acoustic control. The cladding also served to conceal the building's mechanical systems.

The adjacent pergola uses cedar as horizontal purlins, diffusing the sunlight to the seating below; additionally, U+B took the opportunity to clad two very large barn doors and a bi-fold door that open and close the service counters with the same clear cedar.

In order to preserve and enhance the warmth of the material, U+B used a semi-transparent oil based stain, factory applied, that brings consistency to the look of the cedar across the range of light to darker cedar, yet still showcases the natural beauty of the wood grain. The architects also specified a UV-protective topcoat to ensure the tone would remain consistent and warm, even as the buildings age.

Andrea Rugg Photography



Assistance for Architects, Builders and Home Owners

Although U+B had a keen appreciation for Western Red Cedar's durability and natural beauty, the company relied on the Western Red Cedar Lumber Association's website to determine types and grades, ultimately specifying for the product in some trim locations and for all the ceilings in the public areas. 

Skana Forest Products (a WRCLA member) supplied the wood, and Scherer Bros. Lumber Co. as well as Weekes Forest Products, both of Minnesota, were responsible for the finishing and installation of the warming house's ceiling panels. 

WRCLA on-line information helped the architects determine the appropriate dimensions for the tongue and groove cedar (1x4, fine line, and various sizes for trim details in 1" and 2" thicknesses);  exterior elements were stainless steel blind nailed, while interior panels and trim required finish nails.

Western Red Cedar was warmly embraced by the architects and all of Central Park's stakeholders, and it has helped this public amenity become a true destination for Maple Grove residents. Ernie Sebesta, who visits the park regularly, notes that visitors "Appreciate the warmth of the material, and it's almost a subliminal effect, just like a roaring fireplace attracts people in a cold room. Western Red Cedar was the perfect type of wood for this unique project."



Learn More

Timber Grades and Specifications

Western Red Cedar Lumber Association
www.realcedar.com/timbers/grades-specifications/

Where to Purchase WRC for Residential Projects

Western Red Cedar Lumber Association
www.realcedar.com/find-a-retailer/

Tongue and Groove Characteristics

Western Red Cedar Lumber Association
www.realcedar.com/siding/profiles/tongue-groove/

Station Tavern Restoration project

Lloyd Russell - Architect
San Diego, California, USA

Finished in September of 2009 after two years of restoration, Station Tavern & Burgers is an open-air, modern beer garden located in the heart of San Diego's South Park, which itself has transformed from a shabby historic village into a hip urban neighbourhood.

With its huge awning and communal picnic-table-style dining that conceals a small and cozy interior, Station Tavern imparts a laid-back atmosphere. The establishment is kid friendly and dogs are also welcome – which is entirely in keeping with the past use of this property as a public trolley stop.

Station Tavern has been credited for helping to gentrify South Park, and as a restoration project it has won several awards, including the Grand Orchid Award for architecture by the San Diego Architectural Foundation in 2010 and "Best Restaurant for Hipster Parents" in San Diego Magazine.

While much of the establishment's success goes to acclaimed San Diego architect Lloyd Russell and Mario Quintero Construction, the use of Western Red Cedar as a cost-efficient material to augment the structure's other wood components also played a significant role in the restoration.



Design Considerations

At the request of South Park businessman and pub owner Sam Chammas, Lloyd Russell designed Station Tavern to be as open-air as possible in order to make it seem like an organic extension of the South Park neighborhood.

The site was originally a trolley easement and station for San Diego's No. 2 line from 1929–1948. The old line cut diagonally across the parcel of land, and subsequently a triangular-shaped building was constructed on the property. By the time Russell was retained to restore the property, that building had become what he refers to as “an old dive bar, Snippy's Tavern, which operated from 1950 to 2003; it had no windows and was covered in pink stucco.”

Dave Harrison



Chammas and Russell sought a contemporary, sophisticated, but not expensive look that would fit in with an older, established community – a look that would appeal to the increasingly sophisticated younger population in the neighborhood. The way to achieve this came about when the stucco was pulled off the building and the architect discovered redwood siding underneath that had blackened with age.

He recalls, “To us, the wood was the human element of the building and the black was the

modern component, so we saved as much of it as we could before demolishing the structure.”

Also found during the demolition was a giant wooden sign behind some utility boxes; without a clear idea of what it would eventually be used for, Russell stored the sign for a year – another example of how this project was very much a journey of discovery concurrent to the new establishment being rendered on paper (the sign was eventually framed with steel and used as the tavern's main entrance door).

The tavern was entirely rebuilt within the same small (600 square foot) footprint and height, the only changes of note being the addition of windows and trellises as well as a wooden tower housing a kitchen. The design creatively incorporates the history of the San Diego electric streetcars thanks to an outdoor patio area similar to a train platform, and an outdoor children's play area featuring a large wooden trolley.

The interior of Station Tavern was designed by San Diego boat-builder-turned-furniture-maker Pat Wilkening, founder of Red Craft Custom Design; he milled the bar top, stools, tables, and chairs from 100-year-old 2x4s reclaimed from Snippy's.

In a nod towards sustainability, Russell also designed the roof of the tavern's tower to accommodate solar panels that would generate 30 kilowatts of energy daily, or about 30 percent of the establishment's electrical consumption.

The Real Cedar Solution

Although Russell and his restoration colleagues saved as much blackened redwood siding as possible from the original structure, more siding was required to complete the property's metamorphosis into Station Tavern.

For Russell, it was a matter of making one of two choices: to source more redwood or go with Western Red Cedar. “I had incorporated Western Red Cedar into designs for past projects and was very impressed by its beauty and durability, but for this particular project its use would be a matter of practicality: as it happened, clear cedar was available to us at an attractive price point, so we went with it.”

Russell admits that despite his admiration for the wood, Station Tavern represented “tipping my toes into the world of Western Red Cedar, and fortunately I grew more knowledgeable about sourcing and specs as the project evolved.”

Ultimately, the clear cedar was stained black and used for siding to augment the redwood as well as for the trellises; clear cedar was used for window trim, and Douglas-fir was used for other woods elements.

Assistance for Architects, Builders and Home Owners

Although Western Red Cedar was used mainly for utilitarian purposes as well as for decorative touches at Station Tavern & Burgers, the project is significant in that Russell is a supporter of the Western Red Cedar Lumber Association – to the point where he took a WRCLA course to fulfill continuing education requirements for architects. “And since the completion of Station Tavern, I've used Western Red Cedar for a single-family residence as well as two multi-family projects,” he says.

California represents a new target area for the WRCLA, and as such, Station Tavern demonstrates cedar's versatility both as a practical building material as well as a source of great beauty and durability.



Dave Harrison



Andrea Rugg Photography



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