Western Red Cedar Case Study IV



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:

Lift House



This unorthodox ski house floats above the snow, optimizing panoramic views while providing the functionality of a ski-in lifestyle. Western Red Cedar marries the home to the landscape with warmth, comfort and beauty.

Salish Coast School



In a community with deep forestry roots a new elementary school provides a seamless connection to nature. The beauty of the overall wood pallet gets an added boost from the durability and low maintenance features of cedar.

Focus on the DIY Community



Amature and seasoned DIYers explore the Western Red Cedar projects featured on the Real Cedar website. A little help from the videos and pictures went a long way to help homeowners beautify their outdoor spaces.

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.

Lift House Vermont Ski Trail

Brian Mac & Jeff McBride – Architects Birdseye Design, Richmond, Vermont

Perched on a cliff near a ski trail at Killington Resort—the largest ski area in the eastern US—sits a home affably referred to by Birdseye Design of Richmond, Vermont as Lift House.

The 'Green Mountain State', Vermont is well known for its vernacular architecture and diverse interpretations of what constitutes a ski house. But rather than emulate a typical ski-house design, Birdseye wanted to reinvent the concept and anchor it in a regional idea.

Established in 1984, Birdseye began its life as a home building company but over time evolved into a firm committed to both the profession of architecture and the craft of construction.





Design Considerations

With the client proffering a fairly open canvas, Birdseye principal Brian Mac and fellow architect Jeff McBride looked to the ski trail, the local landscape and their penchant for juxtaposing structures and form, for design inspiration.

These considerations and the site topography spurred a 'reverse living' concept. The result is a home where the upper massing of the house has a larger footprint than the base—giving it a 'floating' quality—and where the accompanying kitchen and living spaces provide warmth while taking advantage of the mountain views. The base of the home is more functional in terms of the sleeping quarters and its ski-in, ski-out location.

Given the structure's unorthodox form, it was necessary to create cohesion with the landscape and to optically anchor the house to the mountainside. In addition to optimizing the panoramic view, design consideration was given to ensuring the exterior materials were appropriate for the climate; while the interior finishes created warmth, comfort and beauty.





Erica Allen Studio

The Real Cedar Solution

Pairing the New England setting with their builder roots, it's not surprising that Birdseye has a long history of working with Western Red Cedar (WRC). In addition to being readily available in Vermont, Brian Mac noted that, "cedar's durability, warmth and weather suitability is appreciated and understood by home owners throughout the region". This includes the Lift House owners.

Notable applications include: the use of cedar cladding on the upper cantilevered structure to integrate with the surrounding trees and mountains beyond; the cedar decking and canopy that provides visual cues for the main entrance; and the cedar panel overhangs that provides both shelter from the weather and privacy for the residents.

To complement the natural beauty of the exterior, WRC was also used on the ceilings throughout the interior of the home to create a warm, inviting living space, rich in color and texture.

"The client wanted the house to have a maintenance free exterior and a warm, inviting interior," says Mac. "They were thrilled with how the cedar pallet worked for both."



Assistance for Architects, Builders and Home Owners

Big fans of the Cedar Book, Brian Mac and Jeff McBride are pretty sure they've seen all twelve editions. Thinking back to his early career, Mac recalled how the Cedar Book was one of the only sources of architectural imagery that captured the contrast of warmth and contemporary architecture that he wanted to achieve.

When it came to the all-important work of selecting and detailing siding profiles, McBride said they relied heavily on WRCLA's website. Mac also spoke favorably of the Real Cedar gallery, which allowed them to look at other projects with different conditions and detailing.

Like many WRC users, the Birdseye team credits WRCLA for inspiring and educating them about cedar. When asked to participate in this case study, they noted the participation of Bohlin Cywinski Jackson in last year's case study, a firm they respect and in whose footsteps they are proud to follow.



Peers' Choice Award 1st Place, American Institute of Architects, Vermont Chapter, besting 46 project entries.





Learn More

The Cedar Book	Western Red Cedar Lumber Association www.realcedar.com/cedarbook/
Siding Profiles	Western Red Cedar Lumber Association www.realcedar.com/siding/
Cedar Gallery	Western Red Cedar Lumber Association www.realcedar.com/gallery/
Case Studies	Western Red Cedar Lumber Association www.realcedar.com/resources/north-american-publications/

Salish Coast School Port Townsend, Washington

Shannon Payton, Architect¹ Loretta Sachs, Project Manager Integrus Architecture, Seattle, Washington

Opened in the fall of 2018, the Salish Coast Elementary School has been described as a school fully integrated with its community. Nestled up against a stand of mature trees in Port Townsend, Washington—a city with deep roots in forestry and maritime history—the 68,000 square foot, \$28-million structure replaces a 61- year-old school half its size.

Organized in a U-shape to create a long, enclosed courtyard, the school-community partnership is evidenced many ways. This includes: the dual use of the new school's library as a branch of the public library system; integration of the school's roadway access with the city's bikeable/walkable plan; and establishment of a school production garden where the harvest will contribute to a program focused on community health and nutrition among youth and families.



¹Ms. Payton left Integrus in 2018 and now works for the DLR Group, another prestigious architecture firm.





Design Considerations

The Salish Coast Elementary School needed to exemplify the close collaboration between the students/teachers and the community. For the firm Integrus, this meant the school had to be 'grounded to the site' and include 'place-based' education—where students are immersed in the local heritage, landscapes and experiences as a foundation for study.

The design also called for a seamless connection to nature with easy access to outdoor learning and playing. This meant linking the school's education needs and services with those of the community, which was accomplished by creating outdoor and indoor programing opportunities and gradients between them, such as a mudroom and pathway that connects to the nearby forests.

Also high on the priority list was ensuring the school provides a safe, secure and welcoming environment. Safety took on an added importance, given that the students completed their 2017 school year at the adjacent old-school complex during the construction period.

Finally, the design needed to be economical to build and cost effective to maintain. Long term operational and maintenance costs are often the largest burden a school district faces once their capital construction bond is spent.



Sandy McKellar

The Real Cedar Solution

Integrus architect Shannon Payton knew early on that Western Red Cedar would be a great fit, not only because it's a natural, durable product that is native to the region but also because of its link to the city's history and the school's focus on 'placed-based' education.

Convincing the School District of the fit was another matter, given commonly raised questions about wood. This included maintenance concerns—which were addressed by naturally-weathering the WRC with bleach oil; the potential for graffiti and vandalism—which was reduced by concentrating the WRC in visible areas and the courtyard; and the risk of student injury from nails and slivers—which was minimized by using concealed fasteners and precision detailing.

According to Project Manager, Loretta Sacks, "cedar was placed at all the entry and exit points to the courtyard—so the kids could touch and experience it up close". Payton spoke of environment deliberations as

well, in that some of the old growth cedars removed during site preparation were used to create a log seating area and bark mulch for the walking paths. Finally, glulam beams are featured structurally and the overall wood pallet was extended to the production garden so as to tie the building into the surrounding landscape.



Assistance for Architects, Builders and Home Owners

Integrus architects had high praise for WRCLA's field staff, particularly in providing information about treating the wood with bleaching oil 🐑 to allow it to age uniformly and enhance durability from a maintenance perspective. Emphasizing the importance of making the school district staff comfortable with the design, Payton referenced the assistance of the Cedar Book and cedar samples provided by WRCLA. "When using a new product, it's a given that you have to prove it works", she said. Also key was WRCLA's extensive technical support, so which included a spec review, advice on textures and profiles, and detailing to avoid nails and slivers.

Finally, the multi-step distribution of Western Red Cedar products is well evidenced at Salish Coast Elementary—in that the cedar used was factory finished by Wine Valley Siding Supply in nearby Bothell Washington, via distributors **OrePac Building Products** and Issaquah Cedar & Lumber, and manufacturer Interfor Corp; all WRCLA members.



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Repair and Remodeling Focus on the DIY Community

Western Red Cedar is one of North America's great renewable resources. Light-weight, easy to use and dimensionally stable—it's a preferred wood for nearly all purposes where beauty or resistance to weather is important.

Repair and remodelling (R&R) represents almost 90% of all WRC used in residential housing. It's also a favorite of the DIY community, a younger, more internet savvy demographic. As such, much of WRCLA's DIY outreach efforts are undertaken via online project plans and how-to videos featuring popular home and garden trends, which are promoted on Pinterest, Instagram and Facebook.

While the projects themselves are relatively small, the promotion translates into greater WRC awareness and brand equity, and thus probable selection of WRC when a larger home or deck addition is considered. Further, DIY related promotion drives more traffic to RealCedar.com—22% of the all visits in 2018—and has the lowest cost-per-click while being inherently useful, appealing and not sales focused.

The Real Cedar Solution

To learn more about this online community, WRCLA ran a small Facebook contest asking DIYers to submit a photo of a WRC project they built from one of Real Cedar's DIY Project Plans. From the dozens of submissions, three are showcased here: a vertical planter by Rich Ballard of Hope, Idaho; a sectional sofa by Justin Guerra of Jupiter, Florida; and a pergola by Rafal Niewienda of Wolfschlugen, Germany.



Western Red Cedar Lumber Association

Project: Vertical Garden Box

Rich Ballard, Hope, Idaho

An owner of a small retail cedar outlet in Hope, Idaho, Rich Ballard said he, "is always checking online for Real Cedar articles, pictures and projects". Asked why he selected the vertical garden box project, Ballard said, "they're easy to make" and he, "farms them out to local garden shops as a promo or to attract other customers". Other Real Cedar DIY projects he's built include the Adirondack chairs and the garden work bench, and he just completed his first attempt at cedar shingle art. Ballard loves utilizing the colors, knots and other features of cedar, and added—not surprisingly—"I just downloaded the Real Cedar plans for a picnic table."





REAL CEDAR VERTICAL GARDEN WITH REMOVABLE PLANTER BOXES

Project: Sectional Sofa

Justin Guerra, Jupiter, Florida

Justin Guerra had been fascinated with woodworking for years but lacked the confidence to take on a significant project. Until, that is, he started searching on YouTube and was inspired by the Real Cedar sectional sofa design. "Being a novice, I made a few mistakes along the way, but I also modified the design to meet our needs," Guerra said. "The design caught my eye but my wife fell in love with it instantly". As such, he's redesigning his backyard around the project. "It's a statement piece that's added value to our home and backyard space", says Guerra. "Now I'm looking to build the chaise lounge".



BUILT-IN SECTIONAL

Project: Pergola

Rafal Niewienda, Wolfschlugen, Germany

The geographic reach of the internet was reinforced in Rafal Niewienda's project submission from Wolfschlugen, Germany—not far from the home of Mercedes and Porsche. After searching locally and concluding the 'kit solutions' were too expensive for his budget, Niewienda settled on a pergola from the Real Cedar project plans. Although he deviated from the plan by making the cross boards rotate for greater privacy, Niewienda added, "the video made the construction easy". Bottom line, "the pergola has a very positive impact on our garden and my friends keep asking where I bought it from". Next up is a wood play house for the kids.



STEP BY STEP INSTRUCTIONS

MANLY PERGOLA

DESIGN: REAL CEDAR ORIGINAL





Rafal Niewienda











Real Cedar Free DIV Project Plans

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