

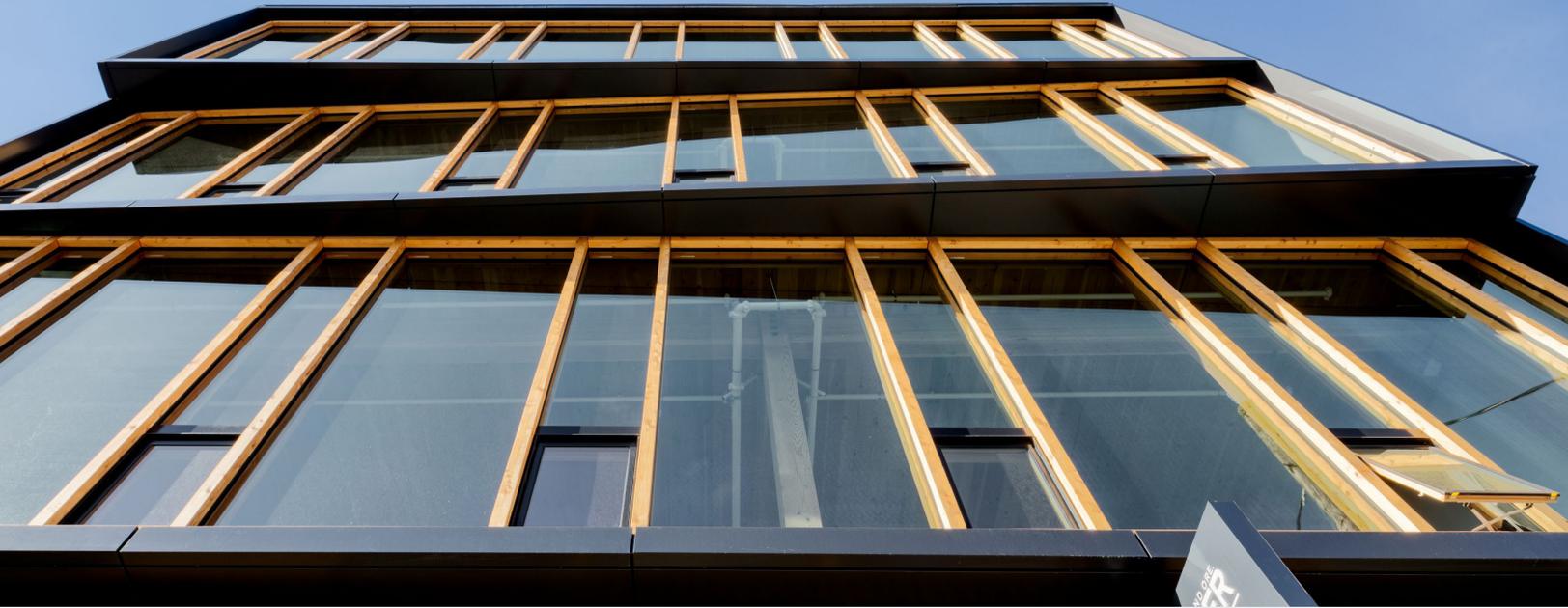
LEVER Architecture

STUDIO SPOTLIGHT BY THINK WOOD



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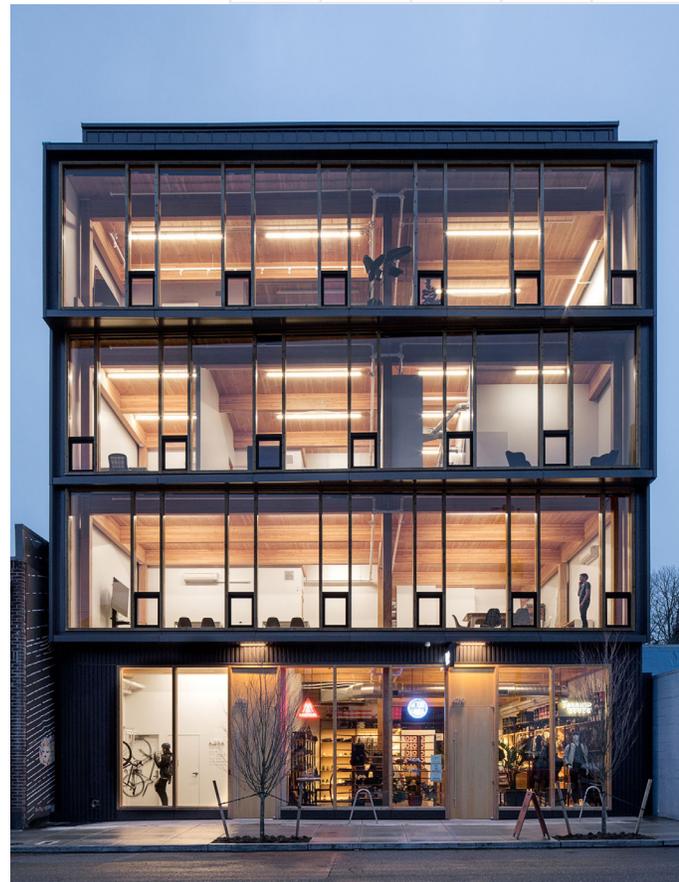
Innovating with
Timber by Design



From innovative housing and commercial office developments to education and civic architecture, Portland and Los Angeles-based design firm [LEVER Architecture](#) has made sustainable, eco-friendly design central to their practice. The 50+ person firm, founded in 2009 by Thomas Robinson, has helped pioneer the expanded use of mass timber across the country through an increased focus on low carbon construction and design.

Since designing [Albina Yard](#), the U.S.' first building constructed from domestically-produced cross-laminated timber (CLT), LEVER has added ten mass timber projects to its portfolio, all of which are either completed or under construction. The firm has also collaborated on a number of research initiatives critical to the advancement of engineered wood structures including fire, acoustics, vibration, air quality, and seismic testing.

In 2020 and 2022, LEVER was recognized by [Fast Company](#) as one of the world's most innovative companies for making environmentally friendly mass timber projects a reality through testing and design. The firm was named to Architectural Record's Design Vanguard and the Architectural League of New York's Emerging Voices and also featured in Timber City, an exhibition of cutting-edge wood construction at the National Building Museum in Washington, D.C.



PHOTOS | [Jeremy Bitterman](#)

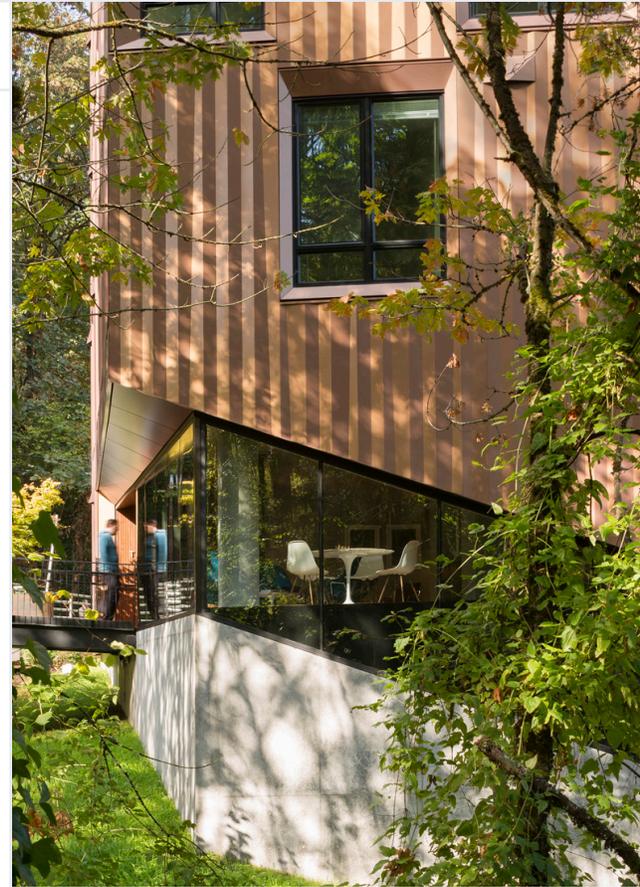
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From the Studio:

LEVER creates buildings that elevate the human experience. We work closely with creative and mission-driven organizations to design buildings that embody their values and enrich cities.

Our firm is pioneering next generation wood design and is an advocate for wide adoption of mass timber construction in the US. We've been designing with mass timber for over 6 years, and we're passionate about building with wood because it is beautiful, sustainable, and connects urban growth to rural economic development.

LEVER's work encompasses first-of-their-kind timber buildings for clients such as The Nature Conservancy and Adidas and includes more than \$1.5M in research funding to develop and test wood building assemblies. We challenge conventional methods of fabrication, use local and commonplace materials in unexpected ways, and pursue construction that benefits the environment and regional economy. Our approach emphasizes transformation at every level of design and brings greater beauty and meaning to the final built work.



“Mass timber is a dramatic transformation of a naturally renewable, organic material. It seems so basic and common, yet you’re turning this material into something sublime in a very economical way. That’s what I get really excited about, unexpected exploration using a centuries-old building material.”

THOMAS ROBINSON
FOUNDING PRINCIPAL AT LEVER ARCHITECTURE

PHOTO | Lara Swimmer

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843 N Spring St.

In the heart of downtown Los Angeles, this 145,000 square-foot five-story mass timber [mixed-use office and retail development](#) makes the most of its steeply sloped site, creating a unique, biophilic environment for next-generation creative tenants. A striking entryway stair design draws visitors upward, connecting Spring Street up to New High Street in L.A.'s historic Chinatown neighborhood.

As one of the first major CLT office buildings in Los Angeles, 843 N Spring St.'s hybrid structural system combines 3- and 5-ply CLT panels and concrete topping slab with exposed steel columns and beams deliver effective seismic performance in a region prone to earthquakes. Exposed interior timber ceiling panels extend to the building exterior and cantilever over balconies, creating a seamless aesthetic. Through the use of structural timber, preliminary calculations show the design team was able to reduce an estimated 1,357 metric tons of carbon from the building's construction compared to traditional methods, equivalent to keeping 287 cars off the road for one year.

By bifurcating the building plan, the design accommodates a tiered vertical garden courtyard between the office wings, complementing the building's exposed wood interior with views of natural greenery. The project's landscape design fully embraces the southern California climate, blending the building's indoor and outdoor experience—open-air circulation spaces and courtyards, along with private balconies and a shared rooftop amenity deck, provide layers of outdoor connection.



IMAGES | LEVER Architecture

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Oregon Conservation Center

This multi-award-winning 15,000 square-foot renovation and expansion of the [Nature Conservancy's Oregon headquarters](#) transforms a dated 1970s office building into a collaborative and sustainably-built hub for the environmental nonprofit whose mission is to preserve nature and fight climate change. The project team's decision to renovate the original structure helped curb harmful emissions associated with demolition, while the use of renewable wood reduced the environmental impact of new construction and will store carbon for the building's entire lifecycle.

Central to the upgrade is the headquarters' mass timber addition, which includes a lush roof garden terrace along with new open-plan layouts, meeting rooms of varying sizes, a staff café/lounge, and dedicated storage space for field equipment. The new addition is one of the first in the country built with domestically-fabricated, FSC-certified CLT panels.

The project incorporates a number of sustainable design features to achieve LEED Gold certification ([LEED Gold v4 BD+C New Construction](#)). Along with its use of structural wood, the building's rooftop photovoltaics produce 25 percent of the facility's electrical supply, and efficient building systems and fixtures reduce electric consumption by 54 percent and water consumption by 44 percent. Practical strategies including abundant daylighting, operable windows, and the use of local materials enhance comfort and connect occupants to the outdoors and natural greenery surrounding the building.



PHOTOS | Jeremy Bittermann



Treehouse

Perched on a steep forested site—as part of the Portland-based Marquam Hill campus of the Oregon Health and Science University (OHSU)—this 45,000 square-foot, seven-story, light-frame multi-family project provides 69 units of convenient housing for university staff, students, and affiliates who are interested in a live/work/no-commute lifestyle.

Dubbed [Treehouse](#), the building's form follows the surrounding natural landscape, blending into the site's adjacent forest. Upon entering, corner windows and thru façade venting greet occupants with generous outdoor views framing a mix of deciduous and coniferous landscaping.

From the exterior, the building connects an upper-level bridge entry to lower-level retail, rain garden, and deck that mitigates stormwater runoff. The building's façade is inspired by the textures, patterns, and light of the forest. A continuous carved building skin is achieved by incorporating all expansion joints into the custom window surrounds, which eliminates the expression of floor levels. A rooftop with wood decking provides shared outdoor space for tenants.



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PHOTOS | Lara Swimmer

Redfox Commons

[Redfox Commons](#), a Portland, Oregon-based 60,000 square-foot adaptive reuse project, transforms two former industrial timber structures into a light-filled campus for creative office tenants. The original heavy timber structures were built in the 1940s for J.A. Freeman & Sons, a manufacturer of hay baling and hay handling equipment. The project demonstrates how an existing building can be repurposed to reduce waste while also connecting tenants to a site's historic significance—in this case, a gateway to the 1905 Lewis and Clark Centennial Exposition, and later, part of Guild's Lake District, a significant industrial corridor.

During construction, wood from previous ad-hoc mezzanines was salvaged to create a new timber and glass entrance structure that connects the two historic buildings. Over 6,500 linear feet of 4x12 inch boards were reclaimed, varying in length from 12 to 24 feet. The reclaimed boards were fastened around a new glulam member using large wood screws to create the entrance structure's distinctive columns and beams.

The buildings' original old growth trusses were sandblasted and remain visually exposed, highlighting the wood's natural beauty. New clerestory windows were added to each roof to illuminate the large open floor plates which are distinguished by 100-foot column-free spans. To reinforce the project's heritage, both buildings were completely re clad using an industrial vernacular of ribbon windows and weathering steel cladding.



PHOTOS | Jeremy Bittermann

Meyer Memorial Trust

Sustainable design, a respect for local ecology, and a strong connection to the surrounding community were central principles guiding LEVER's design of [Meyer Memorial Trust's campus](#) in Portland's Albina neighborhood. The three-story structure—its columns, beams, and decking built with regionally-sourced mass timber—includes an engagement center for public programs, mission library, cafe-style event space and roof garden terrace, workspace for 50, meeting rooms, and coworking space for partners. Facades are clad in gray-stained cedar and custom steel panels. The building is topped with a sawtooth roof, which takes cues from the gabled roofs historically found in the area.

Folds in the metal siding create a play of light and shadow throughout the day. To strengthen connections between the Trust and the communities it serves, the building's ground floor is designed as a "front porch." Inside, the focal point of the building is the Center for Great Purposes, a 100-seat convening center for public programs and collaborations with partner organizations.

Along with its abundant use of locally sourced, sustainably harvested wood, the building requires 30 percent less energy and, with the 50kW solar array, consumes 50 percent less energy when compared to a conventional code structure in Oregon. The building uses 35 percent less water indoors and 80 percent less water for irrigation. A dynamic filtration system and activated carbon filter media reduce air particulates, eliminate odors from entering the building, and create healthier indoor air quality for staff and visitors alike.



PHOTOS | Jeremy Bittermann



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