

## APA CASE STUDY

# Beauty and the Budget

## Engineered Wood's Appeal Is More Than Skin Deep



The Flex building in Portland, Oregon, has its glulam and plywood components exposed. LEVER Architecture, the design firm, wanted the “meaning behind the material” that wood provides. PHOTO: BITTERMANN

### THE WORD IS OUT REGARDING ENGINEERED WOOD.

It's strong. Environmentally responsible. Cost-efficient. It's also known for its natural warmth and aesthetic appeal. LEVER Architecture, based in Portland, Oregon, has developed a reputation for designing buildings that use wood's qualities in new and evocative ways.

LEVER's work with wood and mass timber comes from a respect for the product. “Our approach is equally invested in the meaning behind the material and its sourcing,” according to Thomas Robinson, founder and principal at LEVER. The firm's Flex building, a 19,000-square-foot commercial structure in Portland, uses engineered wood in structural and aesthetic capacities, like the glulam beams that serve as a focal point.

The glulam was manufactured by Rosboro, based in Springfield, Oregon. “To start, we think a lot about the materials,” said George

Michael Rusch, project manager for LEVER, “and then we look for an opportunity to use those materials in a unique way”

Once the team thought about the beams, they chose to make the stairs wood as well, and to leave the plywood shear walls, supplied by Hardel Mutual in Chehalis, Washington, exposed. “We like to use the materials to tie the building together in a cohesive way,” said Rusch. “It's a real, honest structure.”

Those design choices were also strong budget choices. The 2 feet on center support spacing allowed them to eliminate the blocking on the roof. The prefabrication ability of engineered wood allowed for lower labor costs and increased speed of construction. The construction time on the Flex building was just seven months, and the glulam elements of the building took less than 30 days.

Mass timber fits into the design process much like any other material. After ensuring that the material “pencils” within



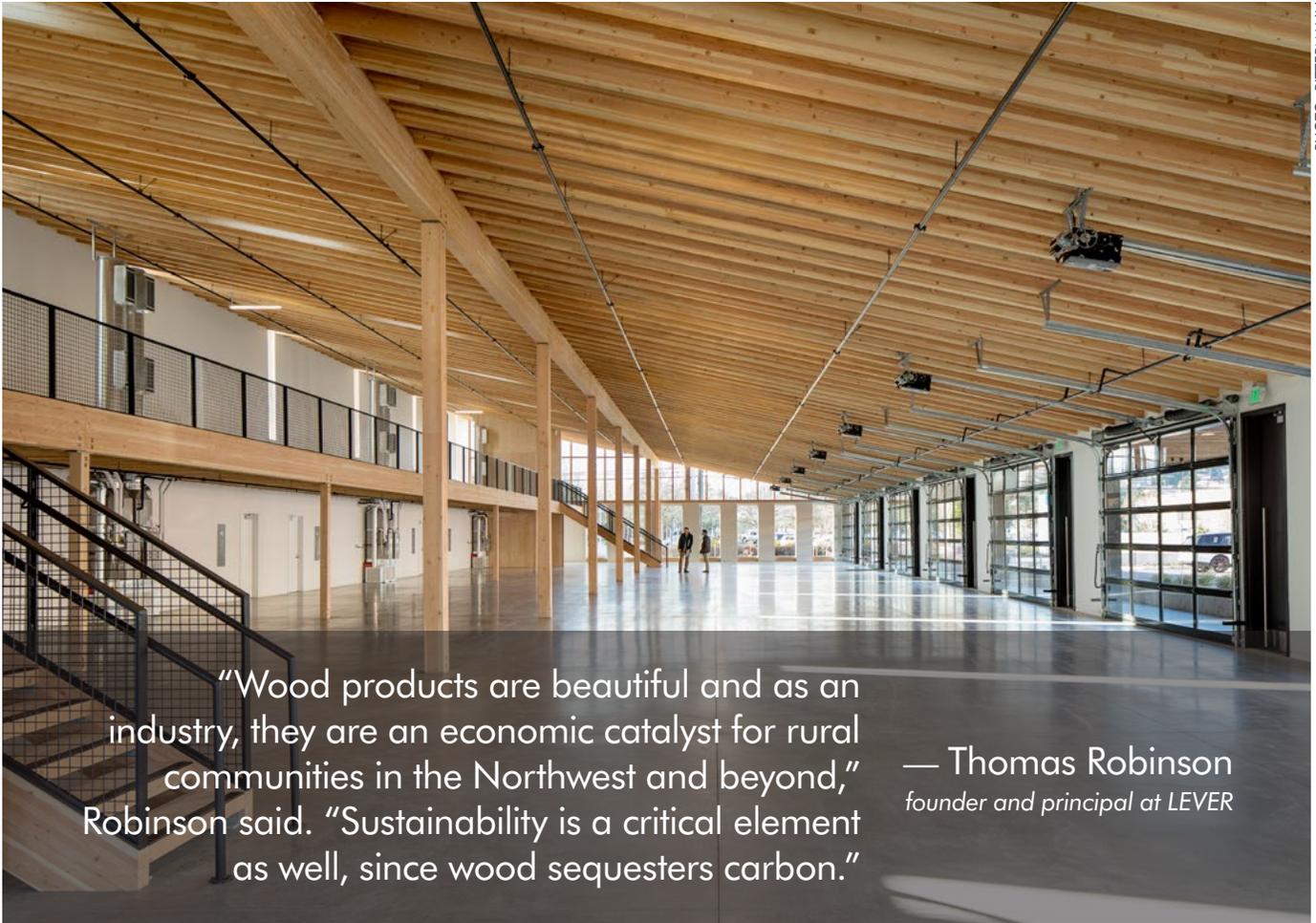


PHOTO: BITTERMANN

“Wood products are beautiful and as an industry, they are an economic catalyst for rural communities in the Northwest and beyond,” Robinson said. “Sustainability is a critical element as well, since wood sequesters carbon.”

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PHOTO COURTESY LEVER ARCHITECTURE

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“We’re seeing clients very interested in working with local wood in their designs. Especially in the Northwest, where there is such an emphasis on using local products,” Rusch noted. “It’s definitely an important issue.”

the project, however, they had to work with contractors to finalize the design process as early as possible to allow time for procurement. “The material allows you to forecast efficiencies in the design, which is a real advantage,” said Rusch.

LEVER’s reputation for using mass timber and other engineered wood products is attracting interest from as far away as New York and Japan, where designers want to learn how mass timber elements are used so they can incorporate them into their own projects.

LEVER architecture is finding that the local aspect of the product is popular with their clients as well. “Wood products are beautiful and as an industry, they are an economic

The Albina Yard building, which serves as LEVER’s offices, is a showcase. The cross-laminated timber (CLT) in Albina Yard was supplied by DR Johnson in Riddle, Oregon. “We’re excited about mass timber because it allows us to create new

## Mass Plywood As Fine Art



Some of LEVER Architecture's work with engineered wood was recently exhibited at the Portland Art Museum. The firm created a mass plywood pavilion, using materials from Freres Lumber in Lyons, Oregon. The pavilion was designed to showcase the capabilities and character of the product and was part of an exhibit entitled "Quest for Beauty: the Architecture, Landscapes and Collections of John Yeon."



PHOTOS COURTESY LEVER ARCHITECTURE



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LEVER Architecture’s offices are located in the Albina Yard building in Portland. Visitors and clients say they love the exposed CLT and glulam throughout the building.

The Flex building won multiple awards in 2018, including Architect’s Newspaper, Best of Design in Commercial + Retail, AIA Citation and Merit awards and an Editor’s Choice award from Gray Magazine, signs that mass timber products like glulam and CLT are gaining a wider acceptance. “We’re able to design with wood in ways that elevate everyday building types,” Robinson said.

“Flex’s soaring wood interior is a completely unexpected experience for a simple, economical building. Innovative use of wood allows us to create powerful architecture, even for projects with limited budgets.” Rusch agreed, “When you can use mass timber for its inherent structural properties, you can make buildings that speak volumes. It’s about the morality of the material.”

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