



NEWS RELEASE

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OSU Publishes Report on Mass Ply Panel Point-Supported Slab Testing

Test findings pave the way for new applications of point-supported Mass Ply Panels

LYONS, Ore., Feb. 13, 2025 – A new study from Oregon State University (OSU) confirms that Freres Engineered Wood’s Mass Ply Panels (MPP) can now be used in a wider range of multi-family buildings, such as apartments, hotels and dormitories. OSU’s Research on Engineering, Architecture & Construction of Timber Structures (REACTS) Consortium conducted a series of tests with full-scale MPP to see how well they could sustain different structural layouts. Test findings, released on January 24, indicated that Freres’ point-supported slab allows the widest and longest column grid spacing with the thinnest panel compared to all other mass timber products.

The “Mass Ply Panel Point-Supported Slab Testing” report presented an experimental program that would inform the future engineering designs of mass timber point-support slab applications with MPP. Since point-supported slab systems do not require beams, developers can achieve the same structural integrity in their buildings using less material. These systems allow for more open and flexible floor plans and can reduce the overall height of each floor, which can be beneficial in buildings with height restrictions. Overall, point-supported slab systems are simpler and faster to install, helping developers save time and cut costs in construction.

Testing was performed on six full-scale panels — three five-ply panels and three six-ply panels — following similar testing of five-ply and seven-ply cross-laminated timber (CLT) panels conducted at OSU the previous year. The five-ply and six-ply MPP passed the International Building Code 2018 1709 pre-construction requirements, justifying a 12 by 16 ft grid at standard loading conditions for typical multi-family construction.

In recent years, buildings like oWow’s 1510 Webster and the University of British Columbia’s Brock Commons have implemented impressive grid spans using mass timber, using five-inch MPPs with a 10 by 15 ft grid and five-ply CLT panels with a 9 by 13 ft grid, respectively. The latest REACT’s report demonstrates that a six-inch Mass Ply panel can substantiate an even larger 12 by 16 ft grid in point-supported slab construction.

“Developing new structural systems is challenging because there are so many variables that need to be addressed,” says Adam Jongeward, principal engineer with DCI Engineers. “This is a much-needed data point that will inform development of design procedures. Test setups should always be pushing the limit..., and this provides results for a 12’ wide timber panel, the widest commercially available timber panel on the market.”

The Freres Engineered Wood team is excited to share the REACTS findings with architects, engineers and developers. The REACTS report presents exciting opportunities for the mass timber movement.

“Mass Ply is always pushing the envelope, which provides enormous opportunities and flexibility to architects and engineers everywhere,” says Vice President of Sales, Tyler Freres. “We're always expanding the possibilities of mass timber.”

For more information about Freres Engineered Wood and “Mass Ply Panel Point-Supported Slab Testing” report findings please email MPPsales@frereswood.com or visit www.frereswood.com.

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About Freres Engineered Wood Products

Freres Lumber Co., Inc., DBA [Freres Engineered Wood](http://www.frereswood.com), has a 100-year history of innovation in the wood products industry, beginning in 1922 when T.G. Freres started a small sawmill in Oregon's Santiam Canyon. Today, Freres' operations include finished plywood, lumber, veneer and structural composite lumber, Mass Ply products, biochar, and a cogeneration facility that supplies renewable power for the local area. Known for being traditionally innovative, Freres is deeply committed to its community and to sustainable forest management practices. The company uses 100 percent of the wood it processes throughout its three operations—Freres Engineered Wood Products, Freres Timber and Evergreen BioPower LLC—and six wood products facilities. Freres provides family wage jobs to nearly 500 employees. For more information, visit www.frereswood.com or call 503-859-2121.