

Freres' mass plywood panels almost ready for market

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Randy Carson, a lead millwright with Freres Lumber, climbs stairs to the control area after setting up to glue plywood in the assembly area on Wednesday at the plant between Lyons and Mill City. Automated machinery hummed, sprang to life and sprayed sticky resin over a plywood sheet 48 feet long and 12 feet wide, then picked up another matching piece and placed it on top. The process was repeated for a few minutes on Wednesday until a behemoth of a wall 8-inches thick was created.

“We’re witnessing the largest plywood panel in the world,” said Eric Ortiz, a plywood salesman for Freres Lumber Co.



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The new veneer-based product — called “mass plywood panels” — could change the construction and timber industry, said Arijit Sinha, an associate professor in Oregon State University’s College of Forestry, which played a critical role in the development and testing of the panels, called MPPs.

Freres has spent upward of \$30 million to build a new four-acre plant between Lyons and Mill City where the mass plywood panels will be assembled. Construction started in March, and smaller panels were first created there in December.

The panels for the marketplace would be made to order, with doors and windows cut out at the plant, which will include a rail spur.

The city of Mill City is investigating whether to build a new public works facility out of mass plywood panels from Freres, officials said, and that could be the first MPP structure anywhere in the world. Sinha said that mass plywood panels could be used for construction packages for everything from skyscrapers to single-story houses.

“The future lies in five- to 12-story buildings. There’s a lot of market share to be captured there,” Sinha added.

Structures made from MPP packages could be erected in days, not months, and the panels would be far lighter to transport than concrete or steel, Ortiz said.

Plus, wood has better aesthetics than concrete or steel, so buildings could be more attractive, he added. “For the wood products industry, this is the dawning of a new age,” Ortiz said.

Pioneering product

Freres is still waiting for engineering certification for the mass plywood panels, but expects that sometime in March, which will lead to full-scale production. Currently, about 15 workers are at the new plant, but that could increase as the company receives orders for the new product, Ortiz said.

Mass plywood panels would be made to spec, not only with specific lengths, widths and thicknesses of up to 2 feet, but also with other custom qualities, depending on architects and engineers’ need for performance.

“The general nature of this product is that it’s all custom-made. It’s not the sort of thing we’re going to make and have sitting around waiting for an order to come in,” Ortiz said.



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Last year, Freres received a \$250,000 grant from the U.S. Forest Service to help pay for a computer numerically controlled machine to help finish panels to buyers' specifications.

The plant also could create MPP columns up to 50 feet long. Panels also could be used to create temporary roads on construction sites.

The panels can achieve the performance characteristics of a similar product known as cross laminated timber panels, but use 15 percent less wood fiber, Ortiz said.

And Freres' new facility could produce seven times more product than a typical cross laminated timber plant currently in operation, Ortiz added.

While cross laminated timber panels are relatively new to the United States, they've been used in construction in Europe for decades, and wood buildings can handle the stresses of earthquakes well, Sinha said.

Freres and Oregon State representatives took a trip to Europe several years ago and looked at companies that are producing cross laminated timber. They figured they could make a similar product by assembling Freres veneer into massive sheets, and then essentially gluing and pressing those together.

"Since we're veneer manufacturers, why not make a mass timber product out of veneer?" Ortiz said. There's usually a model of how to build a plywood plant, but every piece of machinery at the new facility, at 40515 S. Cedar Mill Road, is set up uniquely for the mass plywood panels, said Ed Setzer, Freres panel plant manager.

A German firm brought workers here to help with the installation of the automated machinery, and calibration work was taking place on Wednesday.

"We know we're probably ahead of the market, but it's a race to get there. There's a ton of interest," Setzer said.

Mill City interest

There's plenty of interest locally in the product, as city officials toured the new Freres facility last week. "We're just trying to figure out what options we have," said Stacie Cook, city recorder. "With Freres getting closer to certification on the product, we decided to explore that option, as well."

"They showed strong interest in working together with us. We would be tickled pink to work with them.



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We would love if we could be the first one to showcase their product,” said Mill City Mayor Tim Kirsch, who worked for Freres for more than a decade.

“It’s a win-win. For them, this has a location close to their production plant where they can showcase their new product. For us, it would be something where we have pride of ownership of one of the first buildings they produced,” Kirsch added.

No deal is in place, however, and any agreement would require engineering certification for the mass plywood panels. City officials, of course, want to make sure the product is financially feasible, as well. The mayor, who started off pulling green chain for the company and became a millwright, said Freres has always been on the cutting edge of technology.

Kirsch stressed that Freres — one of the largest employers in the Santiam Canyon with 430 workers — has always given back to communities, so there’s a natural inclination to consider the firm.

Public works need

Regardless of what materials Mill City chooses for its new public works building, there’s no doubt that the structure is needed.

The old public works building, at 274 SW Second Ave., was destroyed by a fire in August 2015. That building also contained the town’s library, which now is housed in an annex for the local Presbyterian Church at 265 S.W. Broadway St.

Currently, there isn’t a good maintenance area for city equipment, such as street sweepers. There also isn’t a storage space for spare parts or other items. Many of the large machines for the city are sitting out in the rain, officials said.

The new 3,000-square-foot public works structure will be constructed near the city wells at Fourth and Kingwood. That will consolidate the city’s public works activities at one location, Cook said.

Today, a vacant lot sits at the location of the former public works building. The city is considering whether to build a skate park at the site, though City Council members are about split on the issue because the property is as close to prime commercial real estate as it gets in Mill City, Cook said.

http://democratherald.com/news/local/freres-mass-plywood-panels-almost-ready-for-market/article_d3f3fa0f-5230-5bf1-bb6a-27e8d5c02470.html



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