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First dowel-laminated timber building in the U.S. set to open in Des Moines

By [DREW ZEIBA](#) • June 4, 2019



A rendering of 111 East Grand, the U.S.'s first dowel-laminated timber building, which is going up in Des Moines, Iowa. (Courtesy Neumann Monson Architects)

A four-story mixed-use structure in [Des Moines](#), Iowa, will be the first building in the U.S. to be constructed with dowel-laminated timber, an all-wood [mass timber](#) product that is held together without nails, glue, or fasteners and can be assembled with friction-fit wood connectors.

Designed by [Neumann Monson Architects](#), the 65,000-square-foot building, which houses shops, restaurants, and offices, is made from pre-fabricated 8'x20' DowelLam panels by [StructureCraft](#), along with spruce glulam beams and columns, and precast [concrete](#). DowelLam can reportedly be created in an array of custom profiles and is easily handled by [CNC](#) equipment.

The architects reported that working with the easy-fit prefab panels allowed for faster construction with fewer workers. Not just structural elements, the panels will also remain exposed on the building in order to contribute to its overall aesthetic. In addition, the architects estimated that the timber construction “sequestered” around 280 tons of carbon and doesn’t run the risk of “off-gassing” chemicals like other glue-based mass timber products like [CLT](#).

Mass timber has been featured prominently in new construction as people are searching for alternatives to steel and concrete, with proponents touting its environmental benefits, among other positives. For



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example, Foster + Partners' sprawling [plans for a new Silicon Valley neighborhood](#) integrate mass timber throughout the site. People have been building bigger with it as well. This year a [280-foot-tall Norwegian tower](#) claimed the title of world's tallest mass-timber structure. Mass plywood panels, another mass timber technology, were also [recently approved](#) for use in buildings as tall as 18 stories.

StructureCraft reported other projects in North America are also putting the dowel-laminated product to use, including the [Lake|Flato](#)-designed Center for Conservation at the [Museum of Fine Arts, Houston](#) and a regional airport in British Columbia.

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