

PHOTOGRAPHY BY EMA PETER COURTESY OF MGA | MICHAEL GREEN ARCHITECTURE



T3 is made chiefly with nail-laminated timber (NLT). Over 1,100 8-foot wide by up to 40-foot long NLT panels were used for exposed structural ceiling and roof panels with concrete topping. Spruce was used for the glulam beams and columns. "The texture of the exposed NLT is beautiful," notes Candice Nichol, project lead and architect for MGA. "The small imperfections in the lumber and slight color variation adds to the warmth and character of the space."

WOOD: TENANT-COOL, TECH-FRIENDLY COMMERCIAL SPACE

T3 has gained attention as the nation's largest mass timber modern office building. The \$24.5 million Minneapolis project successfully fuses mass timber construction with buzz-worthy beauty and amenities. The big surprise? How code-compliant and mainstream the project is.

T3 may be one of the most closely watched architectural projects in recent years. A Google® search (April 2017) of "T3 Building Minneapolis" yields over 300,000 results. Often lost in the public fanfare is the fact the seven-story, 220,000 square foot Class-A office and retail center "is not pushing any boundaries."

That observation may be the project's great lesson says project lead Candice Nichol, AIBC, NCARB of Vancouver-based MGA | Michael Green Architecture. Her firm designed T3 (short for **T**imber, **T**ransit, **T**echnology) in partnership with the DLR Group of Minneapolis.

Past As Prologue

"What makes T3 special is the way it's getting the industry to think about building with mass timber again," Nichol explains. "T3 is an incredibly beautiful building that's also economical and responsible."

International real estate company Hines is the owner and developer. Located in the booming North Loop neighborhood of downtown Minneapolis, T3 "puts a modern spin on an old idea" says Hines.

A great example of that "old idea" is just a few blocks from T3: Butler Square is a 367,717 square foot, nine-story brick and heavy timber building built in 1906 and substantially renovated in 1974.

Code Compliant

"T3 shows what a new generation of office buildings can look like," says Nichol. "We're not used to seeing buildings like this because we've gotten away from mass timber construction. The fact is we didn't do anything outside of code. T3 is a Type IV building. It's a concrete podium topped by six floors of mass timber. There was no need for alternative means and methods."

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Exposed NLT panels, beams, and columns meet all aspects of code, including fire. Mass timber has different burn characteristics than light-frame lumber and building and fire code recognizes that tested life safety margin. Charring is the difference. A charred timber retains most of its mass and strength at a predictable rate, with surface charring acting as a fire insulating material.

Code compliance wasn't the only advantage. Construction speed was another. The timber structure for T3 was completed in just 9 weeks. "We finished a floor about every nine days," says Lucas Epp, engineering and 3D manager, StructureCraft. That work was comparatively quiet too, without the collateral noise associated with other building materials.

Differentiation Rules

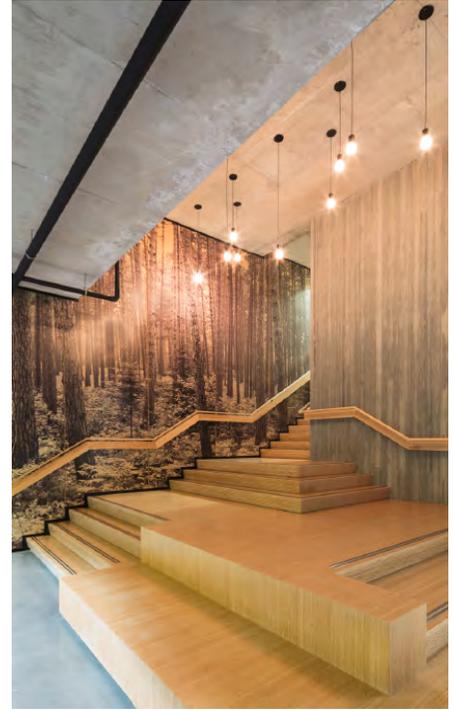
Mass timber structures are lighter than both the steel equivalent and post-tensioned concrete. So the project benefits from a smaller foundation requirement and lower seismic loads. For owner/developer Hines, T3 has proven to be a critical differentiator in a hot market. Wood's natural warmth and beauty offers leasing agents a competitive edge. Coupled with T3's leading-edge technology, LEED Gold certification, and extensive workplace amenities, T3's leasing story is a powerful one for Millennial, tech-focused tenants (Amazon is T3's lead tenant, occupying two floors).

Emerging Template

T3 is a successful example of a mass timber structure that is cost-competitive with steel and concrete. With its success, there has been incredible interest across the U.S. in reviving mass timber as a primary building material. "I know some people have been shocked by the scale and composition of T3," Nichol says. "They shouldn't be. We're not doing anything that hasn't been done before.

"T3 helps everyone get comfortable with mass timber again. It's inviting. It's sustainable. A mixed-use building like T3 makes so much sense for the owner in terms of construction speed, labor, budget, and result. T3 is a very mainstream project."

As an endorsement, Hines recently announced plans to build T3's twin in downtown Atlanta.



The mass timber building offers Wi-Fi in its public spaces including the rooftop deck. T3 also has bike rentals, bike storage, a café, community conference room, and a social workspace area on the ground floor with lounge seating and swing seats. "The social workspace is really cool," says project lead and MGA associate Candice Nichol. T3 is the first office building in Minneapolis to receive preliminary certification from WiredScore, which rates buildings with the best internet connectivity—a tech-friendly win.

Design Architect

MGA | Michael Green Architecture
Architect of Record: DLR Group

Structural Consultant

Magnusson Klemencic Associates

MEP

Dunham Associates

Civil Engineer

Loucks Associates

Design Assist + Build

StructureCraft Builders

LEED

DLR Group

General Contractor

Kraus-Anderson
Construction Company

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