Tall Mass Timber in the Midwest: Designing Two of the Country’s Tallest Wood Projects

INTRO, Cleveland: Nine Stories of Type IV-B Mass Timber in Cleveland, OH

Presented by Dan Whalen

Disclaimer: This presentation was developed by a third party and is not funded by WoodWorks or the Softwood Lumber Board.
INTRO
Harbor Bay.
We are relationship-focused, and neighborhood conscious. Shaping the future of cities by driving innovation & value creation at underutilized, high-profile locations.
We’re always building,

**INTRO, Cleveland** *(297 units, Retail, T.O.D.)*
Cleveland, OH | Winter 2021/2022 Delivery

**Newman Lofts** *(91 units, Retail)*
East Lansing, MI | Sept 2019

**Landmark on Grand River** *(471 beds, retail)*
East Lansing, MI | Aug 2019

**Hilton Hotel, Mayo Clinic** *(286 rooms, 5-stars)*
Rochester, MN | Apr 2019

**HUB on Campus** *(700 beds, T.O.D)*
Minneapolis, MN | 2018

**ENDI** *(168 units, retail)*
Duluth, MN | 2017

**Preserve on Maine** *(200 units)*
Rochester, MN | 2017

**The Boden** *(300 beds)*
Grand Forks, ND | 2016
West 25th Street & Lorain Ave, in the heart of Ohio City.
One of Ohio’s most high profile sites.
One of the most important projects in the region.

- Atop the Ohio City transit hub (9 bus routes + light rail)
- In partnership with the historic West Side Market
- Adjacent to the future Irishtown Bend Park, Red Line Greenway and Lorain Ave Cycle Track
- Cleveland's most dynamic, socioeconomically diverse neighborhood
- Linking Downtown, Tremont, Ohio City and Cleveland’s near west side
Groundbreaking - FEBRUARY 2020
Completion - WINTER 2021/2022

$135M Investment (Phase I)

297 Apartments

40,000 Square Feet of Retail

12,500 Square Foot Rooftop Event Venue

1+ ACRE of Public Green space
Innovative.
Beautiful.
Renewable.
Safe & Efficient.
START WITH: WHY?

1. DIFFERENTIATION.
2. BEING THE LEADING EDGE.
3. PUSHING BOUNDARIES, BENDING RULES.
4. SAVING THE WORLD STARTS LOCALLY.
5. CONSTRUCTABILITY...AFTER A LEARNING CURVE.
6. HIGH PROFILE SITE. HIGH PROFILE PROJECT.
7. CLEVELAND: UNDERPERFORMING YET UNDERESTIMATED.
COVERING THE WOOD DEFECTS THE PURPOSE.
Challenges:

Is the code based on data or based on fear?

Can we get to the required fire-ratings another way?

Does less coverage mean it’s less safe?

Wait, the tests didn’t include sprinklered situations?

Once a believer, what building type do we design to?

Being a part of something larger means being willing to think critically and put in the work.
Approach:

2021 code has elements that are semi-arbitrary.

Beefed up timber members. Shorter egress distances. Redundant water supply to the building. Total fire fuel load vs. max allowed.

Does less coverage mean it’s less safe? Data says: NO.

Sprinklers everywhere.

Getting the Chief Building Official to lead is imperative. Educate. Motivate. Celebrate.

Design against future code or current one? Means to the end of Alternatively Engineered Design Approval.
Integrate the building official and fire marshall as early as possible.

1. discuss intent.
2. provide education.
3. present designs.

Align your process with your end goal. For us, it was: taller building, less coverage.

Encourage your clients and partners to get informed. Read. Everything.

Expect it to be time consuming, and iterative. Build this into the pre-con schedule.

Have a fall back plan.
QUESTIONS?

This concludes The American Institute of Architects Continuing Education Systems Course

Dan Whalen
Harbor Bay Real Estate Advisors
dan@harbor-bay.com