

# **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**

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**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

REAL ESTATE ADVISORS



## **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

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

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

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

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

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

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

**The Boden** *(300 beds)*  
Grand Forks, ND | 2016



West 25th Street & Lorain Ave,  
in the heart of Ohio City.

The image shows the interior of a large, historic market hall. The ceiling is a prominent feature, constructed from brick in a herringbone pattern and featuring several circular medallions. The walls are also made of brick and have arched windows. The floor is filled with various food stalls and vendors. In the foreground, there are stalls for 'URBAN HERBS' and 'MICHAEL'S BAKERY'. Other stalls in the background include 'HODDLE' and 'KARIM'S POKE'. There are also large banners hanging from the ceiling, one of which says '1908'. The overall atmosphere is one of a busy, historic marketplace.

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



An aerial photograph of a multi-story building under construction. The structure features a prominent yellow wooden frame with a grid of vertical studs and horizontal beams. A large white lattice crane is positioned on the left side of the frame. The building is situated in an urban environment, with other buildings and greenery visible in the background. The word "Innovative." is overlaid in white text in the center of the image.

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.





A modern office interior with a high ceiling made of light-colored wood. Large windows on the left side offer a view of a city street. The space is furnished with a long grey sofa, a long white bar counter with stools, and several small tables. People are seen working and moving around the space. The text "COVERING THE WOOD DEFEATS THE PURPOSE." is overlaid in the center in white, bold, sans-serif font.

**COVERING THE WOOD  
DEFEATS THE PURPOSE.**

# Challenges:

Is the code based on data or based on fear?

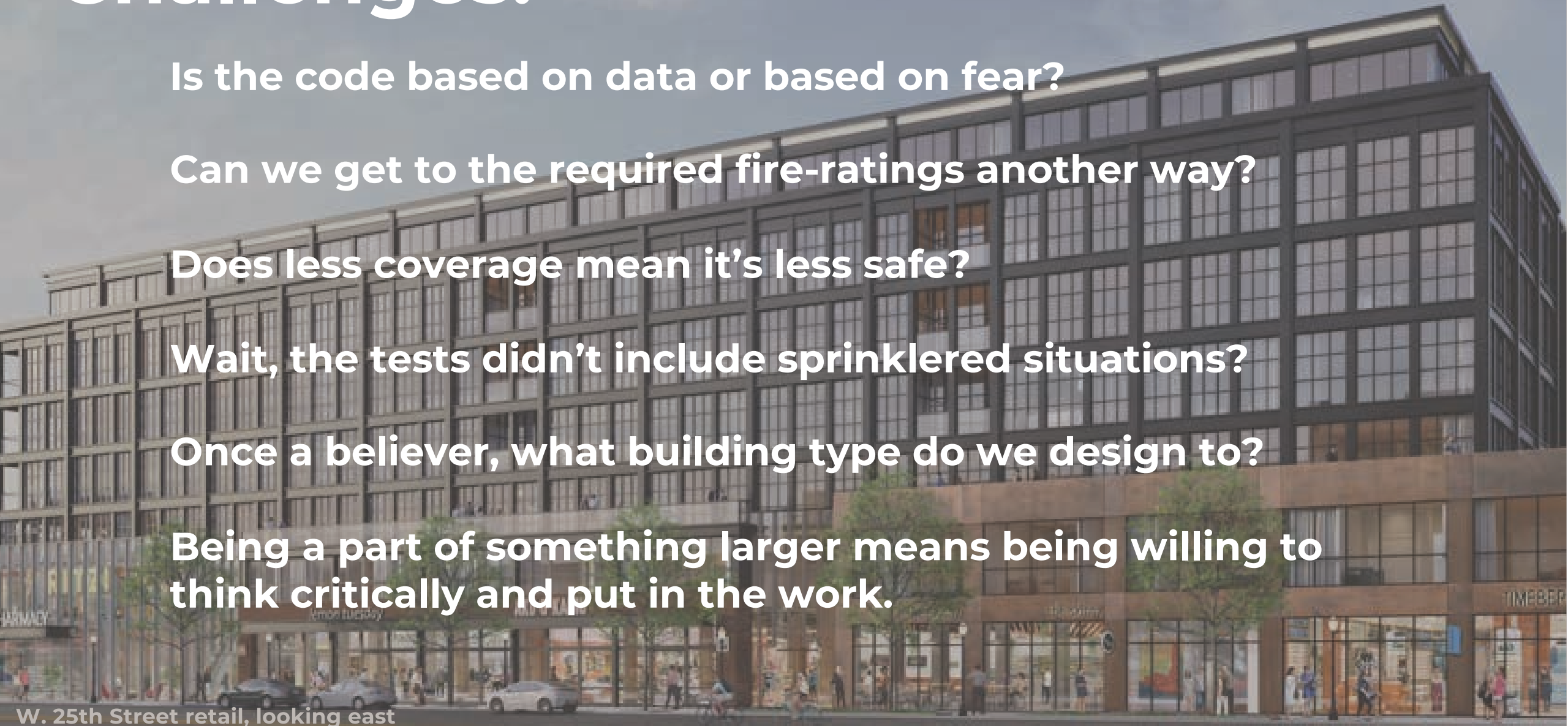
Can we get to the required fire-ratings another way?

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.



W. 25th Street retail, looking east



# 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.**

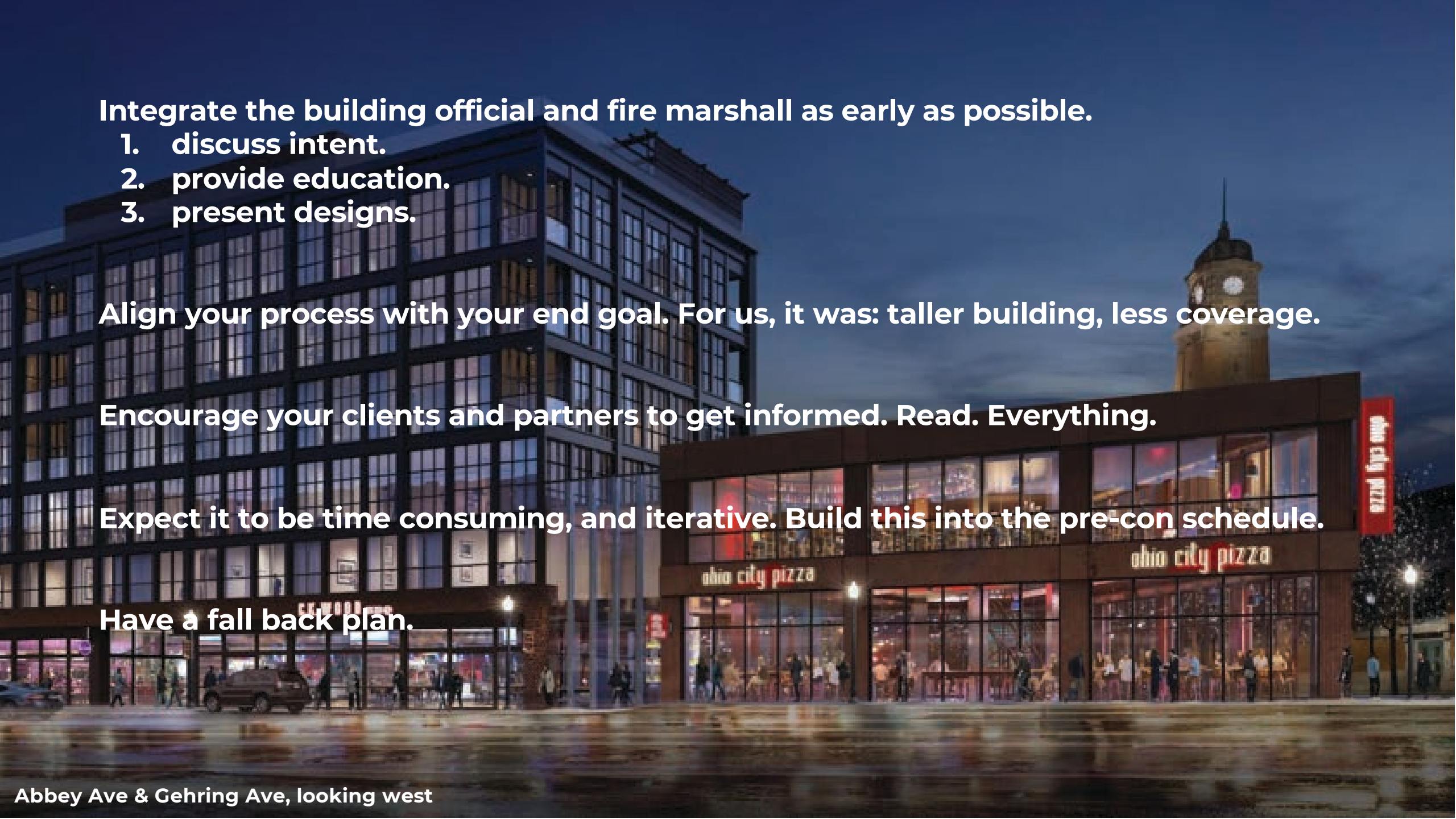
- 1. discuss intent.**
- 2. provide education.**
- 3. present designs.**

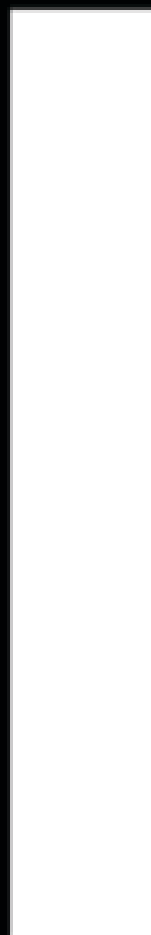
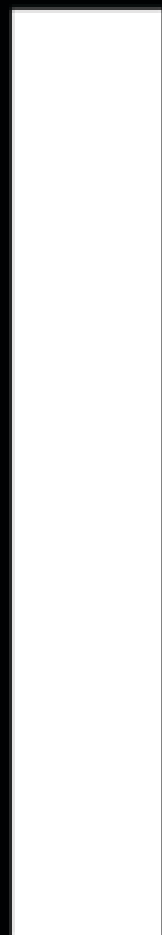
**Align your process with your end goal. For us, it was: taller building, less coverage.**

**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

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