

# Modular Multifamily at Scale: Designing for Fabrication Mindset



Presented by  
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*Disclaimer: This presentation was developed by a third party and is not funded by WoodWorks or the Softwood Lumber Board.*

# WHERE'S MY MODULAR HANDBOOK?

1. Teaming & Timing
2. Dimensional Rules
3. Manufacturers and BIM
4. Coordinate:
  - Collaborate
  - Factory vs Field
5. Construction:
  - Logistics
  - Windows
  - Cladding
  - Load Centers
  - Site visits
6. Lessons Learned





# LOCATION



# SIMULTANEOUS CONSTRUCTION

4/20/2018

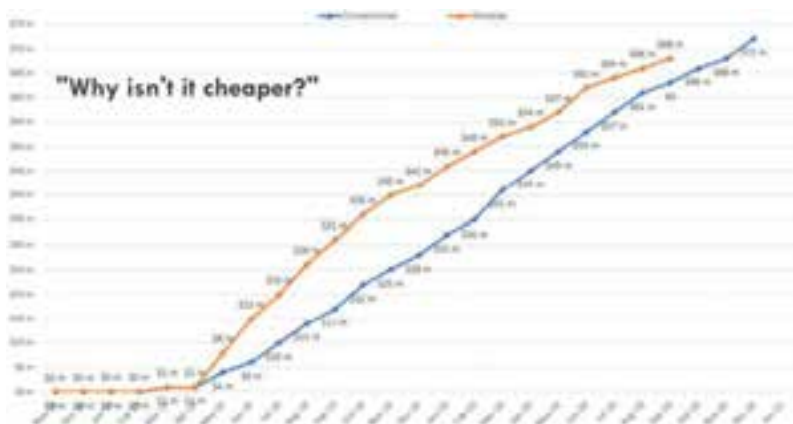
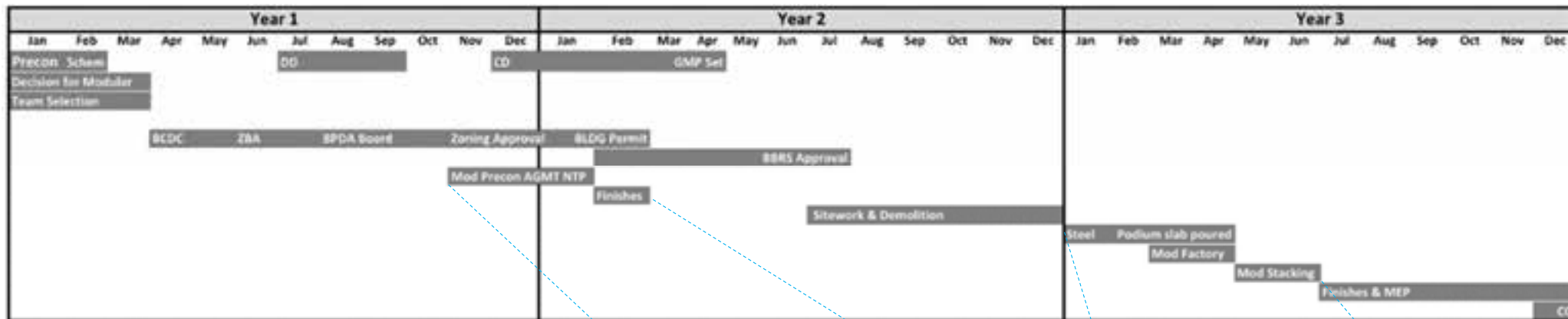


4/12/2018





# TIME = MONEY



Mod Precon AGMT NTP

Make decisions early.  
No changes!

Finishes

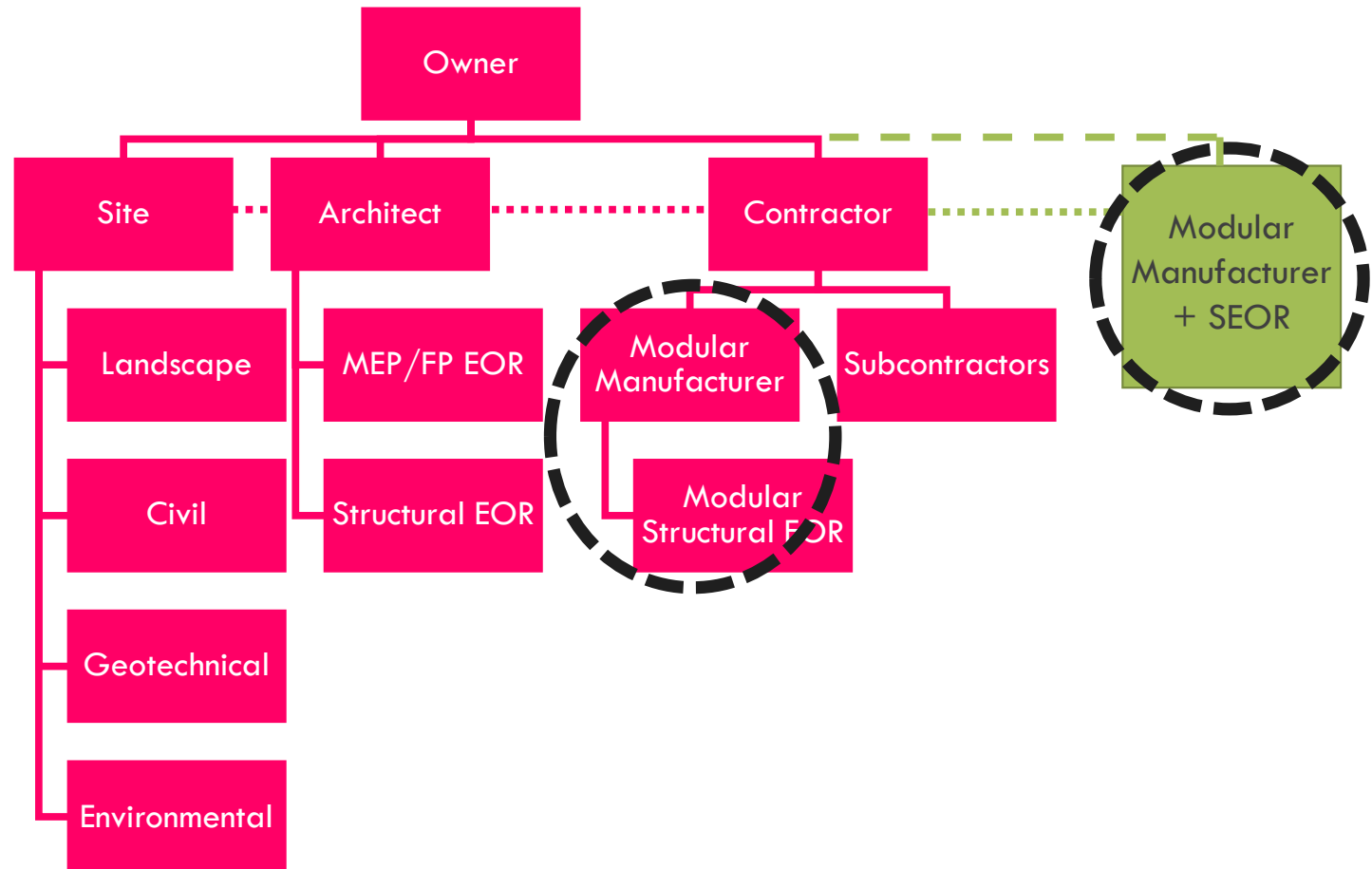
Save 3-6 months!

Steel Podium slab poured

Mod Factory

Mod Stacking

# ORG CHART/ TEAM



# MODULAR AS A TOOL

- Layout, unit count, and location
- Standardization
- Building Systems
- Exterior skin – where does it align?
- Windows – size, install, travel concerns, repair, infiltration
- Amenity design – how to max ceiling hts?
- Unit clear height
- Box height – Transportation regs
- Accessibility

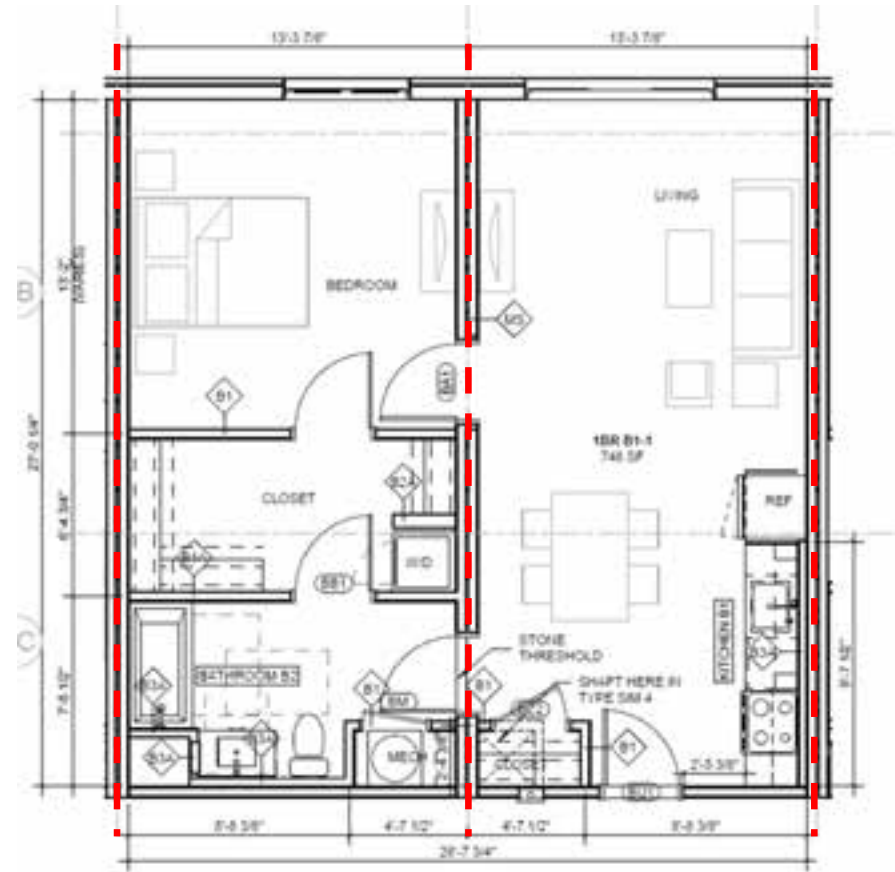
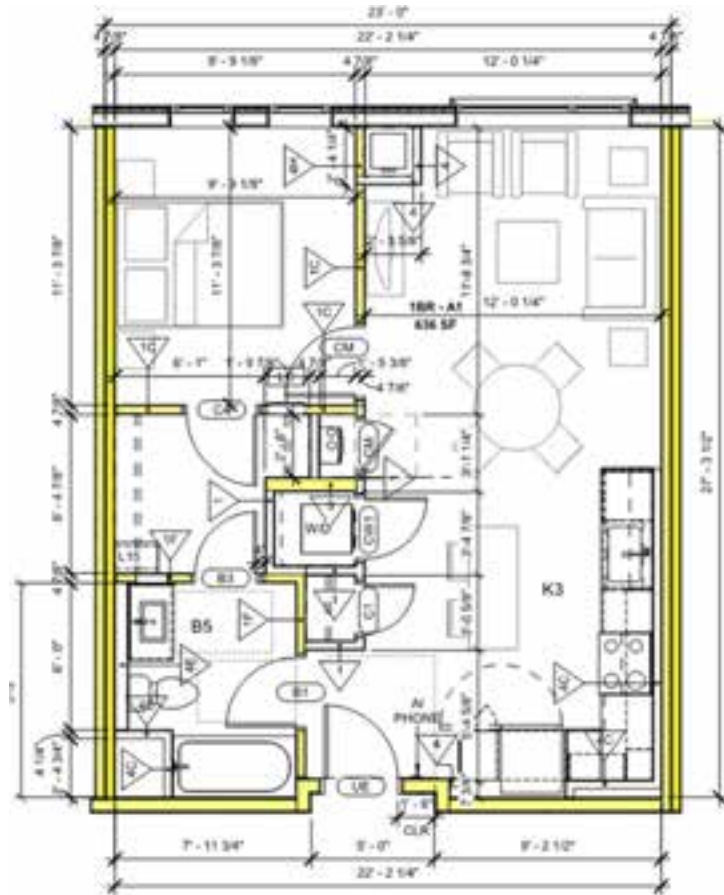


# UNIT LAYOUT

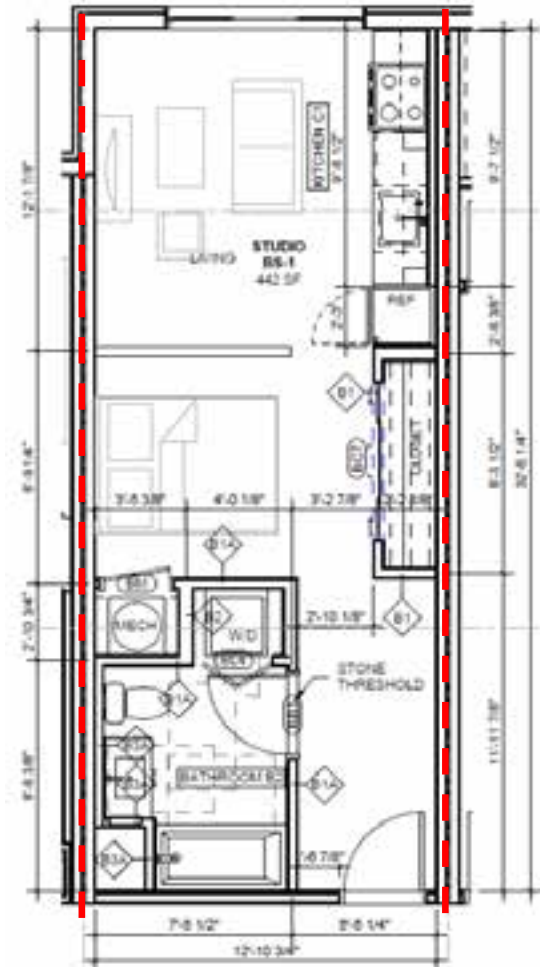
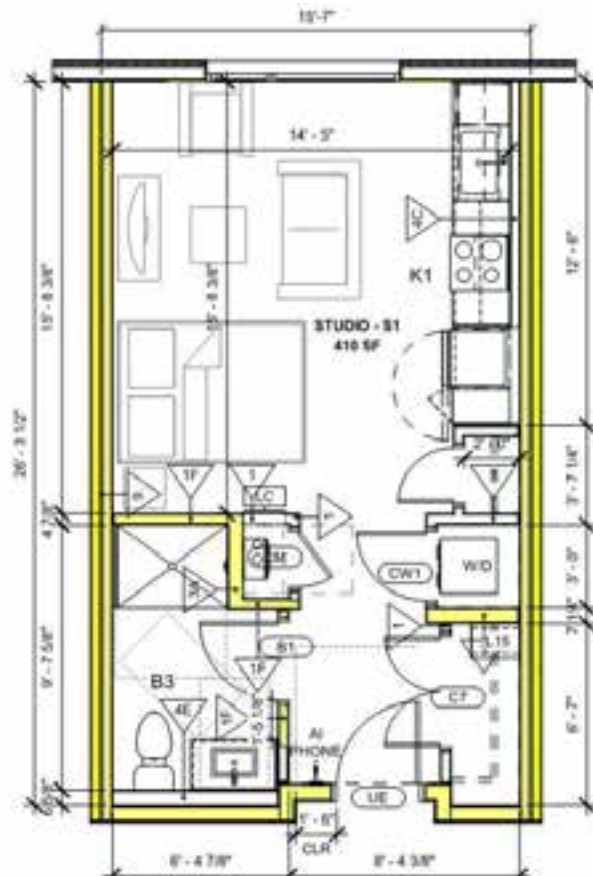




# UNIT LAYOUT – 1BR



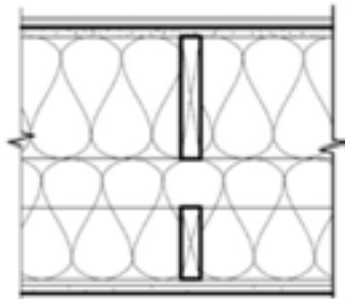
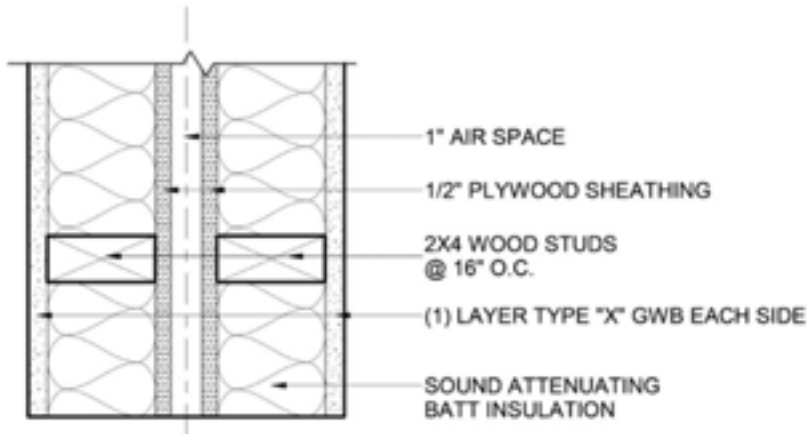
# UNIT LAYOUT - STUDIO



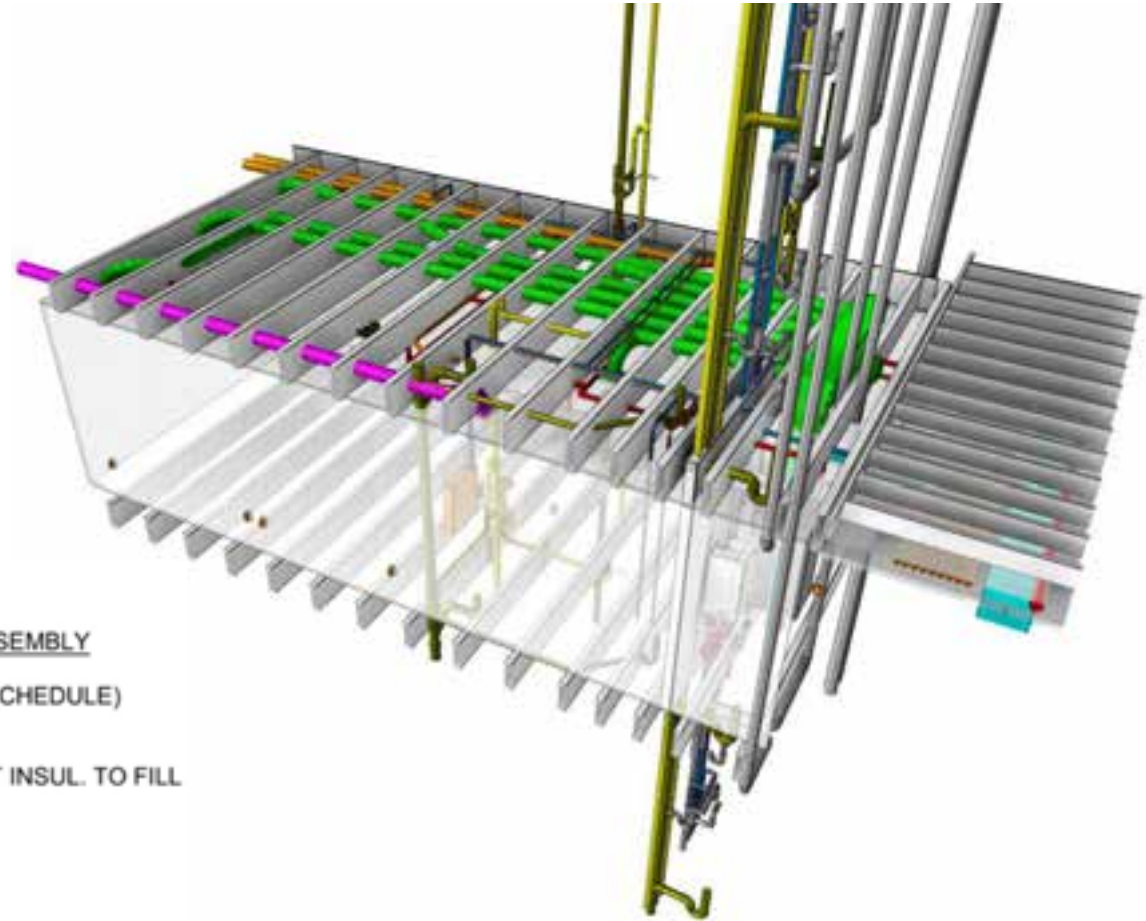
# BUILDING SYSTEMS



# COORD - MODULE

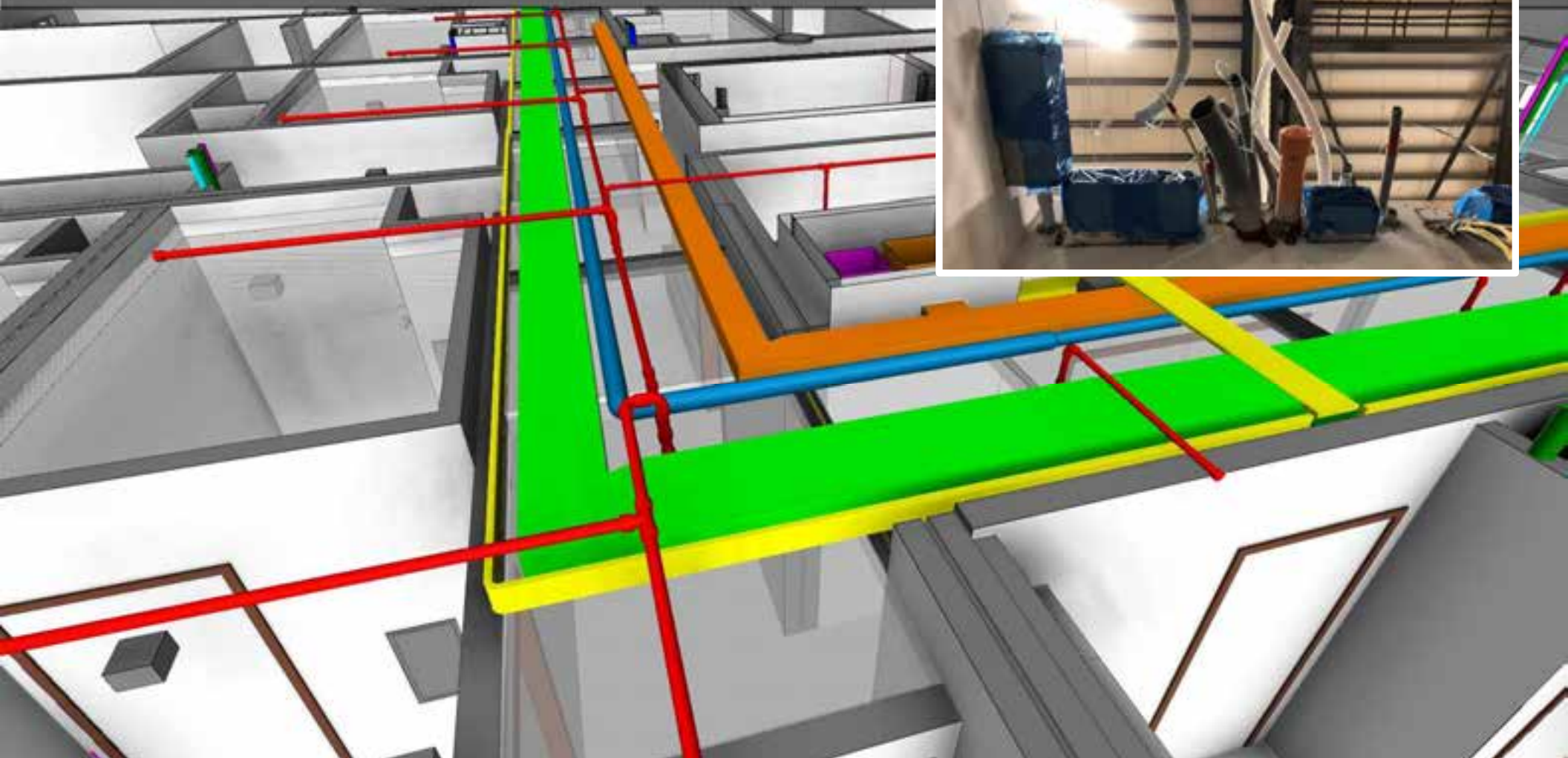


TYPICAL MODULAR FLOOR/CEILING ASSEMBLY  
 (TOP TO BOTTOM)  
 -FINISH FLOORING (REFER TO FINISH SCHEDULE)  
 -OSB PANEL SHEATHING  
 -WOOD JOIST  
 -NON-COMBUSTIBLE FIBERGLASS BATT INSUL. TO FILL CAVITY  
 -CEILING JOISTS @ 16" O.C.  
 -RESILIENT CHANNEL @ 16" O.C. TYP.  
 -5/8" TYPE 'C' GWB  
 UL L539





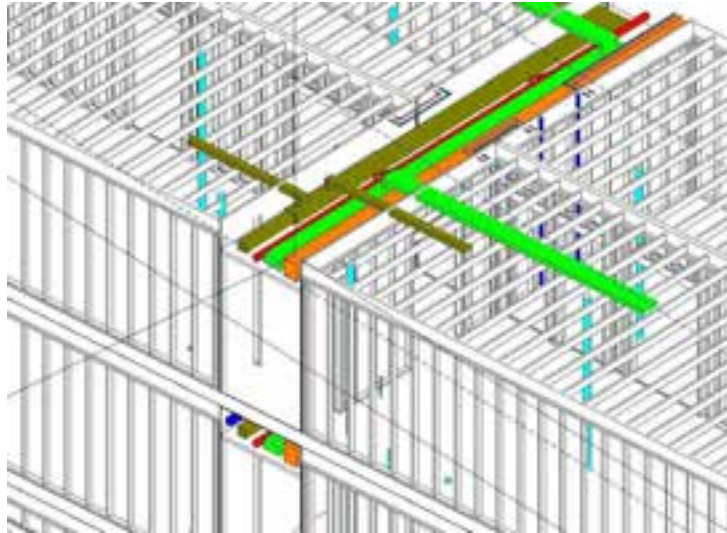
# COORD – BUILDING/FIELD



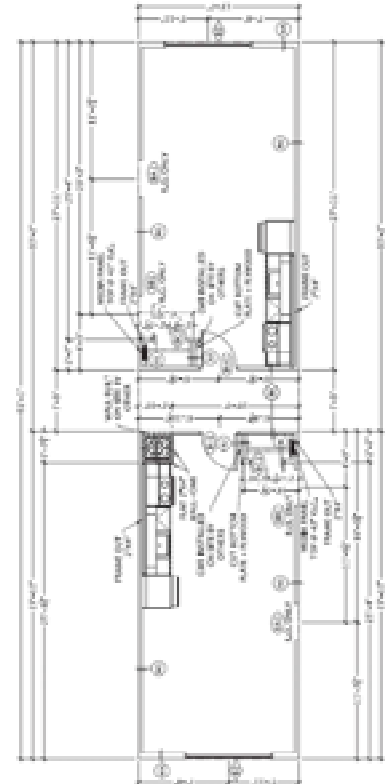
# COMMUNICATION & COORDINATION



Architecture model



Contractor model



Modular 2D





# FACTORY VISITS





# FABRICATION

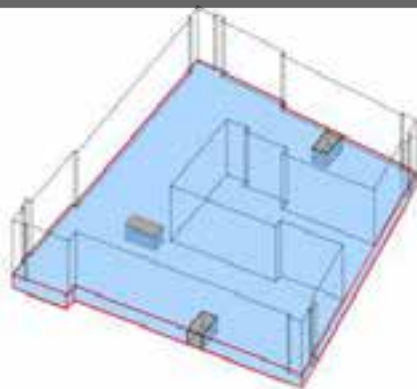


# STACKING IN FINAL LOCATION

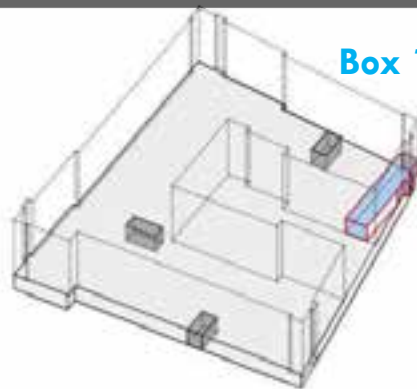




# SEQUENCING

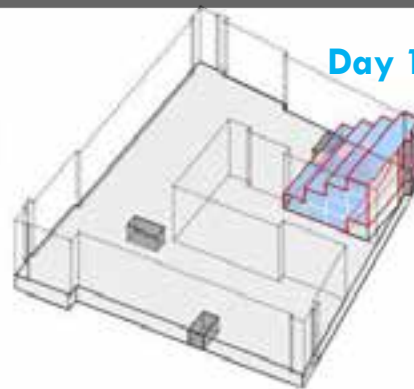


Podium



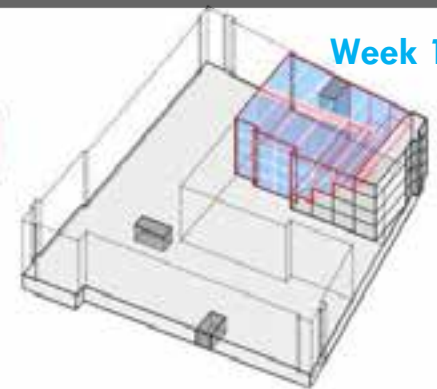
Box 1

Modular Cell



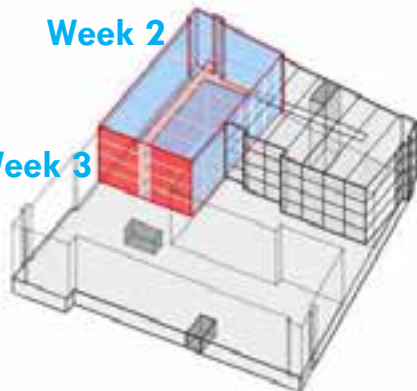
Day 1

Modular Application Tier



Week 1

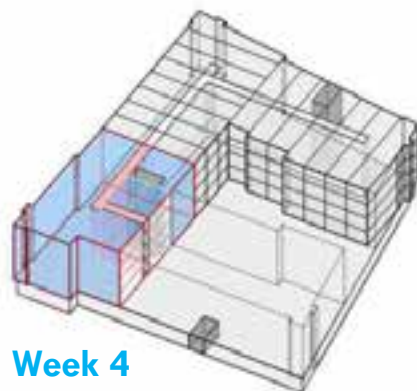
Modular Phase 1



Week 2

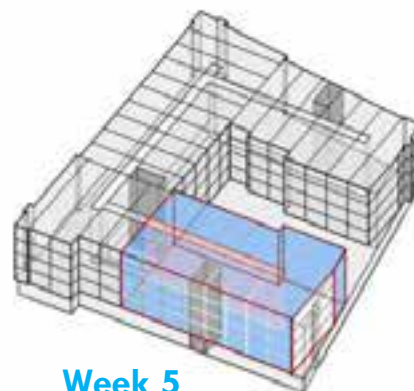
Modular Phase 2

Week 3



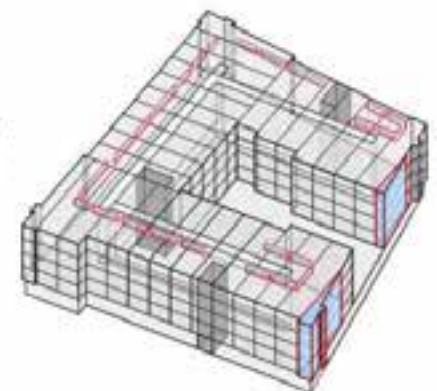
Week 4

Modular Phase 3



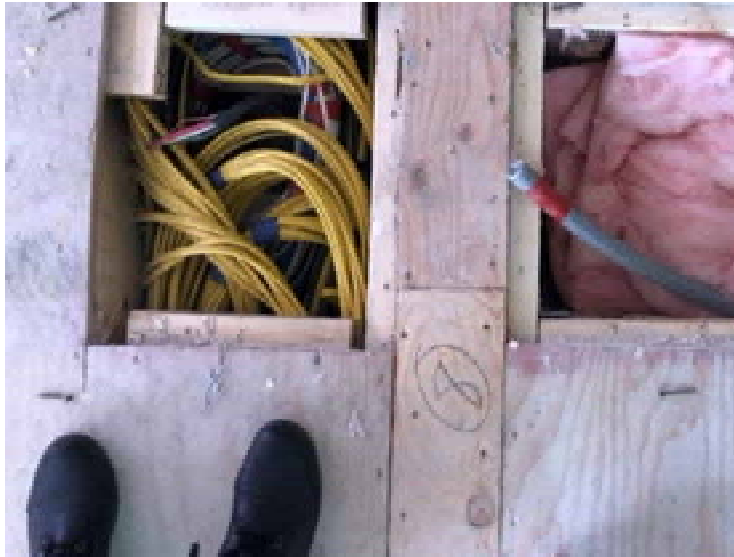
Week 5

Modular Phase 4



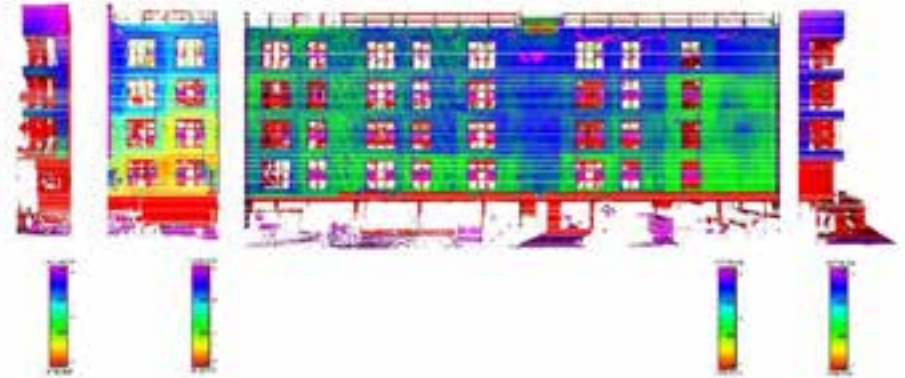
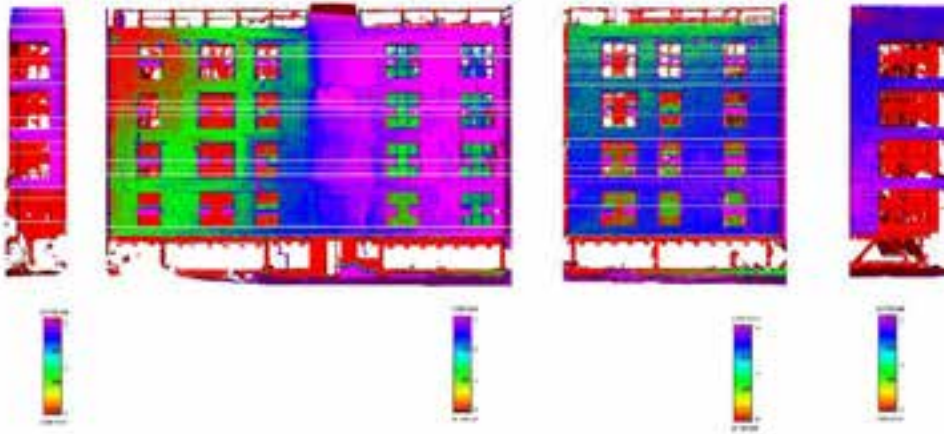
Completion

# INTERIORS





# FAÇADE APPLICATION



## LESSONS LEARNED:

1. Decide Modular early and don't make changes
2. Modular can save time but is not a "silver bullet"
3. No limit to design, as long as you coordinate
4. Teamwork, communication & collaboration is critical
5. Spend time at the Factory!





# Thank you!

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05-31-2018 Thu 13:06:16



MATTERPORT OF MODULES

*As Installed on-Site*

5/31/2018 1:06:26 PM

Your CPE is not  
transferable. Please  
consider this  
carefully.

TOCCI