Leveraging the Component Industry to Provide Efficient Wood-based Structures

Kirk Grundahl, P.E.,
Executive Director, SBCA

Considerations and Expertise
Innovative Structural Framing

- What is the framing material of choice in light-frame construction (i.e. up to 5 stories)?
- What is the most efficient way to industrialize connecting wood parts & metal connectors?
- Digital technology? BIM?
- Where can innovation occur?
- Business model changes?
- What solution always wins? Economics

	Installed Cost Per Square Foot
Steel	$15-35
Concrete	$20-40
CLT	$30-65
Wood Frame	$18-22

- Evaluating structural shell solutions?
  - Playing to strengths
  - How can CMs and CLT manufacturers both win?
- Design to delivery to storage to installation

Structural Framing Efficiency

Clippership Wharf on Boston Harbor

Developer: Lendlease
Four Buildings on 12 Acres
284 Apartments
194 Condominiums
Estimated Development Cost: $270 Million

Architect: The Architectural Team

Structural Engineer: Cates Engineering

Framer: East Coast Interiors

Roof/Floor/Wall Trusses Supplier: Shelter Systems

Wall Panel Supplier: AmeriCan Structures

Clippership Wharf on Boston Harbor

- BIM Mandated by Lendlease
- Manage Load Path through Component Design
  - Floor Trusses
  - Wall Panels
  - Trussed Headers & Rough Openings
  - Smart Components™ Portal Frames & Shear Resisting Elements
  - Roof Trusses

Clippership Wharf on Boston Harbor

Example of multiple CMs, MEP trades, framers working together

Great utilization of technology

Two different CM software

Insight into future collaborations around BIM

CM Value Proposition

- CM digital technology integrated with BIM
  - Coordination & clash detection
- Dimensions & details vetted, right components for load path resistance
- Structural framework easily industrialized with wood raw material
- Just in time component delivery
- Installation speed
- Waste reduction
- Structural & Fire Performance, Codes & Economics – Specialty Engineering
- 65+ years of providing efficient framing solutions

Resources for Architects, Engineers & Developers

Weekly Industry News: Visit SBCA Booth to Sign Up

Find A Local Component Manufacturer
https://www.sbcindustry.com/members/by-location#/

Best Way to Frame
www.BestWayToFrame.com

Framing the American Dream
www.sbcindustry.com/fad

Building Component Safety Information
www.sbcIndustry.com/BCSI

SBCA Technical Support Library Portal
www.sbcindustry.com/topical-library

Workforce Development

www.sbcindustry.com/wfd
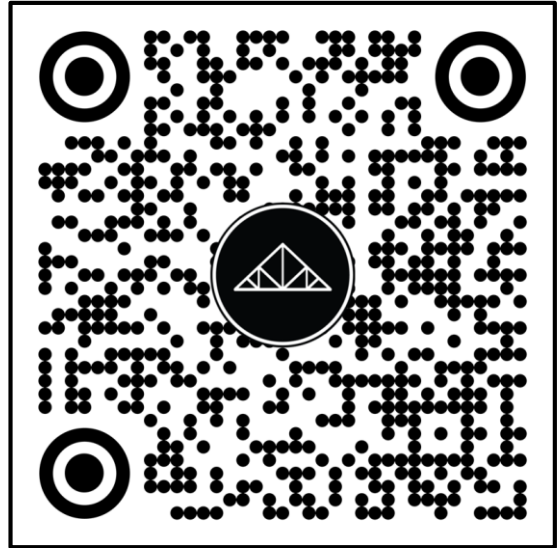
Workforce Development Tools for Component Manufacturers

Hiring & Assessing
Training & Retention
Case Studies
Career Opportunities Board

SBCA™

Scan the code for SBCA's materials from the IWBC Conference or visit our website.

bestwaytoframe.com/iwbc

THANK YOU!