

Mass Timber Construction
mini-seminar

April 28th, 8 – Noon.

The class will be held at the Carpenters Regional Council Apprentice & Training Hall at 1256 Estes Ave, Elk Grove Village

Class cost is \$30.

This class is open to all, so make sure to invite your building officials and any contractor you feel that might benefit from this.

For a more detailed description, bios of the speakers, and to register, go to our website www.IllinoisFireInspectors.org

Description

Raymond O’Brocki, CBO – Fire and Code Provisions for Tall Mass Timber

The program discusses the wood products that make tall mass timber buildings possible, with a focus on cross laminated timber (CLT). The fire testing of CLT will be reviewed, both the ATF lab testing and subsequent testing at the Research Institute of Sweden. The types of construction will be outlined and some of the extra fire protection measures added to the code regarding TMT buildings.

- Identify the make-up of the TWB Ad Hoc Committee and the process used to reach consensus on code changes.
- Recognize how the new types of construction compare with existing types of construction in the *International Building Code* and specify the inherent differences.
- Review and discuss the fire testing that has occurred on CLT and how those tests informed the code changes.

Anthony Harvey, PE – Early Design Decisions

Mass timber is a unique, non-commodity building material and, to lay the groundwork for success, certain critical decisions must be made as early as possible. These decisions can have a big impact on cost and can either increase or limit opportunities later in design. There are many cases of project teams that want to realize the full benefits of mass timber, but, because they base their designs on traditional building practices instead of optimizing them for mass timber, end up with avoidable price premiums. This presentation will walk through early project decisions and design steps, focusing on how to optimize projects for mass timber and how one early decision can influence others. Topics will include construction types, fire ratings, column grids and beam/panel spans, acoustics, and MEP integration. Completed mass timber projects will be used to illustrate the variety of viable options when navigating these key decisions.

- Identify construction types within the International Building Code where a mass timber structure is permitted.
- Discuss the impacts of construction type on required fire-resistance ratings of structural elements, noting the impacts that these ratings have on effective member spans and resulting grids.
- Review code-compliance requirements for acoustics and primary frame connections and provide solutions for meeting these requirements with tested mass timber assemblies.
- Highlight effective methods of integrating MEP services in a mass timber building and discuss the relative impacts of each on cost, aesthetics, occupant comfort and future tenant renovations.

Brandon Brooks, MBA, PMP – Mass Timber for General Contractors

How do general contractors meet the growing demand for mass timber buildings? While architects and ownership groups are increasingly inspired by mass timber's strength, sustainability, and potential for market distinction, they are often hampered by a lack of knowhow among seasoned construction professionals. Firms have varying degrees of familiarity with the products and practicalities of design, potential sourcing opportunities, and differences in applying trades to a modern mass timber structure vs. steel or concrete. This presentation is intended to help contractors interested in pursuing mass timber better understand the nuances, and those seeking to train their installation crews. It provides an overview of mass timber products, connection considerations, preconstruction coordination and interactions between the manufacturer and design/construction teams, material installation and protection, safety, and where to seek additional cost and schedule efficiencies.

- Discuss and compare mass timber systems commonly used for buildings in the U.S.
- Describe the variety of connections that may be used with columns, beams, and panels on a mass timber project.
- Evaluate the objectives and impacts of preconstruction coordination and how the planning and design process differs from projects built with other materials.
- Summarize the proper installation of mass timber elements, and methods for protecting the materials from moisture, dirt, and damage on site.

Speaker Bios



Raymond O'Brocki, CBO, is the Manager of Fire Service Relations for the American Wood Council. Before that he was the Chief Building Official for the City of Rockville, MD. He retired as the Assistant Fire Chief of the Baltimore City Fire Department in 2013. He was appointed fire marshal for Baltimore City in 2008. O'Brocki has served on several building and fire code technical committees. He is an adjunct instructor at the National Fire Academy and has presented at various venues around the U.S. O'Brocki is a graduate of the University of Baltimore School of Law and a licensed attorney.



Anthony Harvey, PE is a licensed Professional Engineer in Kentucky, Anthony received his BS and MS in Civil Engineering from the University of Kentucky, both with structural specialization. Before joining WoodWorks, he spent more than a decade working as a design consultant. He has experience in structural design, 3D modeling and detailing (REVIT), construction administration, inspections, and project management for a variety of project types, including healthcare, office, retail, K-12/higher education, historical, industrial/distillery, municipal, military, multi-family, and mixed-used buildings. Anthony is also a Major in the United States Army Reserve where, as an Engineer Officer, he has held various leadership and staff positions.



Brandon Brooks, MBA, PMP is an experienced project and program manager, a seasoned policy analyst, and an incorrigible information sponge. He recently completed a career in the Marine Corps where he led test and evaluation efforts for acquisition projects with congressional oversight, created an education and training roadmap for technical skills programs, and was fortunate enough to lead and work alongside some of our country's greatest people. He obtained a Bachelor of Science in Business Administration with a focus on finance from the University of Florida, completed his MBA at Virginia Tech, and is a Project Management Professional. He is based in Anchorage, AK.