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## The Wood Revolution: Inspiring Change by Example





Sept 24 • Washington, DC Sept 25 • Baltimore, MD Sept 26 • Boston, MA

Register at woodworks.org

# The Wood Revolution: Inspiring Architecture with Innovative Structural Systems

Terry Pattillo, AIA, WoodWorks

There is a quiet revolution going on in Europe, Canada and now the US—a revolution that will likely change the way architects here view structural wood building systems. As a structural building component, wood offers many environmental benefits, including the ability to maximize carbon storage and minimize carbon dioxide emissions associated with the design, construction and operation of buildings. Architects are using "massive timber" design principles and techniques to take advantage of wood's carbon benefits, driving positive change through the power of wood design. This presentation will connect structure with architecture by introducing a variety of innovative structural wood products and systems. Case study examples of innovative projects will be used to demonstrate how and why these products and systems are providing exposed wood structural solutions. Make no mistake-these examples are not your grandfather's traditional heavy timber-style buildings. These are creative, imaginative structures designed to take advantage of wood's environmental and structural benefits.

### Fire Safety of Timber Buildings: A Research Review

#### Robert Gerard, MSc, PE, Arup

The trend toward urban densification as a way to create more sustainable communities is also driving interest in taller and larger buildings made from timber products or a combination of wood and other materials. Many timber building concepts are motivated by suggested advantages resulting from the use of a renewable and low-carbon construction material. However, in furthering wood's evolution in this regard, it is essential to understand the implications with regard to fire and life safety. This presentation will feature the findings of a study undertaken in coordination with the Fire Protection Research Foundation to assess the fire performance of structural systems related to expanding wood building applications.

#### Advanced Geometry in Urban Environments: The Evolution of Public Landmarks

David Moses, PhD, PEng, PE, LEED AP, Moses Structural Engineers Inc. In the last few years, North America has seen advances in applications of timber in the built environment that are changing the way we design and fabricate. An engineering perspective on the complex geometries now achievable with timber products will be explored through Canadian examples of public landmarks such as the Wayne Gretzky Sports Centre, Art Gallery of Ontario, and new Lansdowne Stadium in Ottawa. Discussion will also focus on how innovative products such as cross laminated timber (CLT) and composite concrete-wood systems, as well as growth in the mid-rise market, are creating even more opportunities to advance design in urban environments.

# The First Cross Laminated Timber School in the US: A Builder's Perspective

Charles Judd, Blue Heron Timber Works

The Pendleton County School District in West Virginia is the first in the US to build a new school in cross laminated timber. With panels for the 40,000-sf facility installed in less than three months by five carpenters and a crane operator, CLT represents a new world of opportunity for the growing district. In this presentation, the CLT erector for the project will discuss the advantages and challenges of using this new material in the context of structure, building envelope and exposed wood aesthetic. He'll also share insights into the planning process, equipment and labor, and how CLT construction differs from typical methods.

### **Urban Timber: From Seed to City**

**Boston workshop attendees** are invited to visit the new exhibit—Urban Timber: From Seed to City running from June 26 – September 30 at the Boston Society of Architects. The exhibit celebrates wood as the region's most sensible and abundant choice of material for urban building, highlighting its flexibility and technical qualities, including timber's potential to combat climate change.

Visit: www.architects.org/bsaspace/exhibitions/urbantimber-seed-city



## About WoodWorks

# Free design and engineering support for wood buildings

WoodWorks provides free resources related to the design, engineering and construction of non-residential and multi-family wood buildings. Visit woodworks.org or email *help@woodworks.org*.





### Time and Place

On-site check-in will open at 7:30 a.m. Program will begin at 8:00 a.m. and the day will conclude at 1:45 p.m.

#### Sept 24, 2014 • Washington, DC

Ruth's Chris 2231 Crystal Drive, 11th Floor Arlington, VA 22202

Sept 25 • Baltimore, MD Ruth's Chris Baltimore – Pier 5 711 Eastern Avenue Baltimore, MD 21202

Sept 26 • Boston, MA Boston Society of Architects 290 Congress Street Boston, MA 02210-1038

### Education Credits

4.0 AIA/CES LUs (HSW) or PDH credits

### Fee

\$40 (includes lunch)



WoodWorks is an approved AIA provider.

Photos: (cover) Landsdowne Stadium, Mark Cichy; (address) YMCA Pavilion at Camp Harrison, C design, Tim Buchman; (inside) Federal Center South Building 1202, ZGF Architects, Benjamin Benschneider; (back) Arena Stage at the Mead Center for American Theater, Bing Thom Architects, Nic Lehoux



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