



Exploring Mass Timber's Potential in Multi-Family and Large Scale Projects



Clayton Community Centre
Credit: Michael Sherman Photography | Courtesy: RJC Engineers



Virtuoso mid-rise construction Credit: Adera Development Corporation

Thursday, June 11, 2020 - 9am – 11:10am
FREE of charge with advance registration – [CLICK HERE](#) to register

Mass timber offers significant advantages in terms of structural performance, scale possibilities and construction efficiency. Learn what it takes to practically and efficiently design and build mass timber buildings so that the structure is cost-competitive, while still maintaining the architectural vision, elegance and quality. These three presentations will take participants through early design considerations for successful mass timber buildings including options for use of CLT and DLT, including floors, roofs and decks.

Presentation #1: Andre Lema, Western Archrib

Presentation title: 6 Key Elements to Designing with Mass Timber

Mass timber offers significant advantages in terms of structural performance, scale possibilities and construction efficiency. This presentation focus will be on the most important early design considerations for a successful mass timber building, including what situations to avoid. Participants will learn about emerging opportunities for wood, and how to take the next steps in design.

Learning objectives:

1. Understanding the advantages of using mass timber
2. Learning what the early design considerations should be
3. What situations to avoid with mass timber
4. How to take the next steps in design

Bio: Andre Lema, Business Development Manager – Western Archrib (Edmonton)



Andre has been in the construction industry his entire career, currently as business development manager with Western Archrib. He is a hobbyist wood worker and builder, passionate about wood construction and enjoys the great outdoors at every opportunity.

Presentation #2: Orlagh McHugh, & Ron McDougall, Structurlam Mass Timber Corporation

Presentation title: Optimizing for Success in Multi-Family Residential

With more than 400 mid-rise multi-family residential buildings under construction and/or completed in BC since the building code change in 2009, project teams have learned how to optimize for success in this building type. With the advent of new mass timber panel products, the opportunity has arisen for developers and design teams to explore new forms of wood construction, including hybrid mass timber/light wood-frame construction. This workshop will focus on options for use of CLT in design and construction, including floor, roof and deck.

Learning objectives:

1. The design and fabrication process of mass timber construction
2. The different framing options for CLT in multi-family residential construction
3. How to optimize the use of CLT during the design phase – design for success
4. Floor, roof and deck construction for CLT

Bios:

Orlagh McHugh, Mass Timber Specialist – Structurlam Mass Timber Corp. (Vancouver)



Orlagh McHugh is a mass timber specialist at Structurlam Mass Timber Corporation, overseeing the Lower Mainland and Vancouver Island. Before relocating to BC almost a decade ago, Orlagh earned her degree in structural engineering and architecture at University College Dublin, Ireland, and went on to complete a Master of Structural Engineering at the same institution. With over seven years of experience working with top Vancouver firms as a design engineer, she has contributed to a diverse catalogue of projects across a number of sectors, with a particular focus on wood and mass timber construction. Orlagh is inspired by the innovative nature of mass timber construction and keen to promote creativity, technology and sustainability in our built environment.

Ron McDougall, Mass Timber Specialist – Structurlam Mass Timber Corp. (Kelowna)



Ron brings 30 years of heavy timber experience to the mass timber industry that combines a unique perspective on the evolution of hand built timber construction to the technologically advanced practices utilized in Structurlam's state of the art production process. Ron's expertise is the facilitation of incorporating BIM practices in pragmatic and meaningful ways to ensure efficient construction of complex mass timber structures.

Presentation #3: Gerald Epp Jr., StructureCraft

Presentation title: Beautiful, Efficient, Versatile: DLT and Mass Timber Construction

What does it take to efficiently engineer and build mass timber buildings? How can timber be integrated into a project so that the structure is cost-competitive, while still maintaining the architectural vision, elegance and quality? We will also look at the features and key design parameters when using DLT, the all-wood mass timber product. This session will use built projects as a means to explore practical considerations in engineering, 3D BIM modelling, logistics and installation. Larger mass timber commercial buildings such as The Soto Office in San Antonio will be examined, as well as the use of mass timber in several local schools and community centres.

Learning Objectives:

1. Discuss design considerations necessary to achieve economical mass timber buildings
2. Discuss dowel-laminated timber (DLT) and its key features and design parameters
3. Discuss practical methods to ensure the right mass timber product is used in the right application, with constructible details
4. Explore potential impacts of erection techniques and prefabrication on timber construction

Bio:

Gerald Epp Jr., Business Development Engineer – StructureCraft (Abbotsford)



Gerald has been involved at StructureCraft from a young age, performing various roles. Throughout this time, he has gained considerable experience in business development, estimating and 3D design. He graduated from UBC civil engineering, and is presently an engineer-in-training. Gerald's current responsibilities focus on business development management, including handling and coordinating new markets and project opportunities. He has led the preconstruction efforts for many large projects including T3 Atlanta and Minneapolis, The Soto Office, National Arts Centre, and North Surrey Sports & Ice Complex.

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