Presentation Outlines and Speaker Bios

1/ North American Wood Design Awards: a showcase of Wood Design Award winners from 2016-17:

Marianne Berube, Executive Director, Ontario Wood WORKS! / CWC, North Bay, ON and Lynn Embury-Williams, Executive Director, Wood WORKS! BC / CWC, North Vancouver, BC

Description: Find your design inspiration! This presentation will highlight award-winning projects from the Wood Design Award programs held across Canada and in the US in the past year. The projects featured in this presentation showcase innovative uses of wood in institutional, commercial and residential designs. Unique, one-of-a-kind buildings will be showcased, as will designs that can be easily and cost-effectively replicated.

Learning Outcomes: Discover new and innovative structural uses for wood from the award-winning projects; Discover new and innovative architectural uses for wood from the award winning projects; Compare design characteristics of projects from various regions of Canada; Determine which award-winning designs best suit your geographical area.

Track/Seminar: T1/S1 & T2/S3 Theme: Architectural/Design and Architectural/Innovation

Bio: Marianne Berube: Marianne lives and works in North Bay, Ontario. She graduated from Nipissing and York Universities with degrees in Environmental Science and Business. She has extensive experience within the finance, construction and wood industries. Marianne sits on several boards and is currently chair of Nipissing University’s Board of Governors.

Bio: Lynn Embury-Williams: Lynn is a Registered Professional Forester in the province of BC and has an MBA from the University of Western Ontario. She joined the Wood WORKS! BC program as executive director in 2014. Previously the director of marketing and business development at Canfor, Lynn has brought a wealth of experience and expertise in the areas of marketing and business development to Wood WORKS! BC. In more than two decades of working at Canfor, she was instrumental in helping the company quadruple its size to become the largest SPF producer in the world. For six years, until the end of the program, Lynn chaired the NEWBuildS Forestry Network Program, whose primary goal was to advance scientific knowledge and construction technologies that will enable wood-based products to be used in mid-rise and non-residential construction. Lynn was a forester for Crestbrook and its predecessor companies in the East Kootenays during the early 1980’s. During that time she managed the largest private land holding in forests in the province of BC.
2/ The StructureCraft DLT Plant - a Prototype for Competitive Timber Industrial Buildings:

Lucas Epp, P.Eng., Head of Engineering, StructureCraft Builders Inc., Abbotsford, BC

Description: StructureCraft has recently opened a state-of-the-art facility in Abbotsford which contains North America’s first Dowel Laminated Timber (DLT) manufacturing line. For an industrial building, the superstructure is unique – as it is constructed entirely of wood. Envisioned as a prototype for cost-competitive timber industrial buildings, the structure is comprised of prefabricated wall and roof panels using a variety of mass timber and engineered wood products. To demonstrate the flexibility of mass wood in industrial buildings, StructureCraft designed the entire building as a demountable structure, providing flexibility to expand or move the facility entirely to a new location. This presentation will describe the engineering, manufacturing, and installation of the industrial building, as well as describing the CNC automated equipment line for production of DLT. This production line will be the largest capacity DLT line worldwide, and will launch this new cost-efficient mass timber product into the rapidly growing North America market.

Learning Outcomes: Pre-fabricated industrial buildings using wood; Dowel Laminated Timber (DLT) manufacturing line; Design for Demountability; Cost-efficient design with mass timber.

Track/Seminar: T1/S2 Theme: Architectural/Design

Bio: Lucas Epp: Lucas is a structural engineer with 10 years of experience working in Canada, the UK, and New Zealand. While in London he designed a range of projects and sculptures with world-class architects, and developed an expertise in complex geometry and challenging structures. Lucas leads the engineering department at StructureCraft where he has been involved in large-scale timber structures including the 2010 Vancouver Olympics Speed Skating Oval, and more recently as lead engineer for the T3 Minneapolis office building.

3/ Leading the Way: Mass Timber in the UK, Why and How:

David Lomax, Senior Associate, Waugh Thistleton Architects, United Kingdom

Description: The UK is facing a housing crisis as well as a construction labor shortage. Solving our need for housing must not come at an undue cost to the environment and needs to use technologies that our de-skilled workforce can deliver quickly. Waugh Thistleton has been building tall, dense housing schemes in London from cross-laminated timber (CLT) for 15 years and the firm is now beginning to work on commercial buildings too, moving into the next stage of off-site manufacture in timber - volumetric design.

Learning Outcomes: Outline of pressures on the UK housing and construction industry that promote the use of timber; Case studies of completed innovative cross-laminated timber residential buildings by Waugh Thistleton; Case studies of CLT buildings in development by the firm’s practice and the new advances being incorporated in their design; A short introduction to volumetric modular timber construction in the UK.

Track/Seminar: T2/S1 & T1/S3 Theme: Architectural/Design and Architectural/Innovation
Bio: David Lomax: Dave Lomax is a senior associate at Waugh Thistleton where he leads the delivery of the world’s largest cross-laminated timber building and their work on CLT volumetric housing. Alongside practice David is vice-chair of the London Borough of Southwark Design Review Panel and has taught at a number of institutions including the London School of Architecture and the Bartlett.

4/ Solutions for Wood
Jim Barker, Owner, Barker Manufacturing, Victoria, BC

Description: Nostalgia is a current trend with architects and designers as it relates to wood appearances, which is one of the reasons reclaimed wood has become so popular. However, for the reclaimed look, availability is an issue. This seminar will cover several types of appearance finishes available today that will both extend the life of wood while providing the aged or reclaimed look including weathered, burnt or hand hewn on almost any wood size and profile, from heavy timber to millwork to cladding. The speaker will also share his experience in wood design trends from other jurisdictions.

Learning Outcomes: Learn about designing with the increasing popular burned-wood (millwork and cladding) look, advantages; Learn about boutique textures available in a wide variety of materials including but not limited to wood; Learn how the new wood is made old with faux weathered coating technology; Learn about leading-edge wood designs popular in other jurisdictions.

Track/Seminar: T1/S4 Theme: Architectural/Design

Bio: Jim Barker: Jim Barker is the founder and owner of Barker Manufacturing and has been creating rich, textured architectural finishes for over 30 years. Always striving to be on the leading edge of design, Jim has developed technologies and techniques that can bring the appeal of unique textures to a wide variety of materials including; wood, glass, metal and even concrete. Jim has created adze textured panels, burnt wood, weathered wood, live-edge, log slab and flat boards in a limitless combination of exclusive textures and finishes. Primarily, Jim works with lumber from the forests of British Columbia, but can source and texture any wood specified. Jim works closely with innovative architects and designers and has developed the reputation of being a key resource for architects and designers who are looking for unique design solutions for their respective projects.

5/ Using Wood Where We Live, Learn, Work and Relax — an Austrian experience:
Dr. Herwig Ronacher, architekten Ronacher ZT GmbH, Khünburg, Austria

Description: There are many attributes of timber that have significant opportunities and advantages to designers -- aesthetics, ecology, energy efficiency, building biology, economics, building physics and strength. It is a wonder more timber is not being incorporated in structures which are actually well-suited to its use. While this presentation examines the practical applications of timber in a variety of commercial and institutional structures in Austria, it explores how wood was used to express some emotional and creative elements as well. Dr. Ronacher’s presentation delves into how wood in structures can contribute to reducing the environmental impacts of our built environment from both structural and non-structural
applications. Dr. Ronacher believes if we want to strengthen our understanding of the role wood can play in our world we need to study and optimize traditional wood designs, learn from our early mistakes and constantly improve industrial technologies of fabrication and construction practices. Architect Herwig Ronacher from Austria shows a multiplicity of both public buildings like schools, offices and health care facilities on one hand and recreational / hospitality buildings, spa facilities and swimming pools on the other -- all built with timber.

**Learning Outcomes:** Learn how some Austrian designs incorporate wood into structures once considered non-traditional for wood use; Explore both the practical and emotional experiences of timber in use and how it can enhance the building purpose for its occupants; Examine how technological improvements of fabrication and construction practices have, and will, improve overall building outcomes, including cost and environmental efficiency; How wood use provides designers with creative and emotional avenues not easily achieved from other materials.

**Track/Seminar:** T2/S2 & T1/S5    **Theme:** Architectural/Design and Architectural/Innovation

**Bio:** Dr. Herwig Ronacher: Dr. Herwig Ronacher is from Gmünd, in the Carinthia province of Austria within the Eastern Alps, which is noted for its mountains and lakes. He studied architecture at the Technical University of Vienna but also worked in the office of university professor E. Hiesmayr. He also served as a university assistant at TU Graz where his dissertation was about the combination of wood in massive construction. In 1984 he was accredited as an architect in Austria and has practiced continuously for almost 35 years. His is both a passionate advocate and knowledgeable practitioner of wood in design. Since he began his practice he has been involved in the planning, design and construction of more than 450 buildings, most of them constructed in wood. He is regularly asked to present and has given talks at conferences in Austria, Europe and Japan, and now Canada.

**6/ Timber Pre-Fabrication of the Brock Commons Building**  
*Karla Fraser, Senior Project Manager, Urban One Builders Construction Management Inc., Vancouver, BC*

**Description:** With the successful completion of the 18-storey mass timber hybrid Brock Commons Tallwood House at UBC Vancouver, much was learned about the detailed planning, coordination and scheduling in larger and taller structures using wood. This session will explore what was learned, the broader application of this approach to design and building, and where the industry goes from here. As with any project that pushes boundaries, this structure has generated interest from around the globe for its departure from traditional construction materials, systems and methods. As the senior project manager, Karla was the conductor of a very large orchestra with a backstory that goes beyond the innovative mass timber structural system. She will outline the 3D modelling, prefabrication, assembly on site, and the resulting fast construction critical path while highlighting the many new processes used in this amazing project. The result: a viable, repeatable and adaptable building system that may redefine our cityscapes.

**Learning Outcomes:** Learn about the construction methods used in the building of the 18-storey Brock Commons building; Hear lessons learned during the project; Gain an understanding of the intense coordinating and scheduling that was required on the project and; How the project team worked together to finish the project ahead of schedule and on-budget

**Track/Seminar:** T2/S4    **Theme:** Architectural/Innovation
Bio: Karla Fraser: Karla has worked in construction for over 20 years and has attended Southern Alberta Institute of Technology, Civil Engineering Technology program. A move from Manitoba and Alberta to BC has provided opportunities to work in infrastructure, commercial and tower projects. She says the Brock Commons project is the most distinctive challenge to date with the unique sequencing and speed of construction.

7/ Collaborating on the Rocky Ridge Recreation Facility

Iian Ho, P. Eng., Project Coordinator, PCL Construction Management Inc., Edmonton, AB, David Edmunds, Partner, GEC Architecture, Calgary, AB, James Please, Structural Design Consultant and Base Building Engineer, RJC Engineers, Calgary, AB and Robin Zirnhelt, P.Eng., Lead Heavy Timber Engineering, ISL Engineering and Land Services Ltd., Canmore, AB

Description: The project team at Rocky Ridge Recreation Facility, including GEC, RJC, ISL and PCL will share their collaborative experiences constructing the largest wood roof structure in North America. The presentation will showcase the project’s success story from the perspective of the prime consultant, structural design consultant, specialty design support engineer and construction manager and will include the following topics: Design Concept, Inspiration; Optimizing 3D models; Wood Structure Design Scheme; Minimizing Design & Construction Costs; Overall Project Challenges; Creating an environment for success through Construction Planning; and Lean Construction.

Learning Outcomes: Wood design (steel-to-wood and wood-to-wood connections); 3D modelling and development of design concepts; minimizing design and construction costs; construction planning and lean construction

Track/Seminar: T5/S2 & T2/S5  Theme: Contractors/Developers and Architectural/Innovation

Bio: Iian Ho: Iian Ho has a solid foundation in leadership and in all major operations of the construction industry. He has a passion for constructing large scale complex construction projects and has been a part of the following high profile projects: Canadian Museum of Human Rights in Winnipeg, YYC Runway Development Project and the Rocky Ridge Recreation Facility. His strengths are in team work, adaptability, innovative problem solving, BIM technology, project planning and execution, risk management and providing the overall best value for the client.

Bio: David Edmunds: David was the lead design architect for the Rocky Ridge Recreation Facility. With over 35 years in practice, David has extensive experience designing wood-frame and heavy timber structures that require innovative design and structural solutions. David is an expert in applying local building code requirements to wood-frame/heavy timber construction, and has developed courses and presentations for Wood WORKS! Canada and Woodworks USA on the use of wood in noncombustible structures.
Bio: James Please: James obtained his Masters of Civil Engineering in the UK and Italy before moving to Western Canada. For the last 4 years he has worked extensively on a variety of recreation projects. He has developed a specialized knowledge of both the design and the construction of the recreation and sports facilities, particularly in heavy timber. In addition to a strong technical background, James brings a practical approach to engineering, and was extensively involved in both the design and construction support associated with the Rocky Ridge Recreation facility.

Bio: Robin Zirnhelt: Robin leads the heavy timber engineering service line from the ISL Canmore office. His experience ranges from hands-on sawmilling and traditional timber joinery to 3D modelling and connection detailing for both traditional and highly engineered structures. He has designed hundreds of architectural buildings and timber structures of varying sizes, acting as the engineer-of-record or a specialty engineer working for the supplier for design-build solutions.

8/ Effective R-value calculator for walls: A free tool to demonstrate compliance with prescriptive wall provisions of the Vancouver Building By-law and BC Building Code

Robert Jonkman, Director Codes and Standards - Structural Engineering, Canadian Wood Council, Ottawa, ON

Description: The Canadian Wood Council’s (CWC) interactive Effective R-value calculator is a free tool to help designers comply with the prescriptive energy provisions in any code that references effective thermal insulation values, including the Vancouver Building By-law and the BC Building Code. The calculator enables designers to explore options, compare features, and determine a suitable wall assembly that can perform across a range of Canadian climates.

This free online tool www.effectiver.ca provides effective R-values for wall assemblies and includes a durability assessment that considers computer modeling and field experience.

Learning Outcomes: The NECB and BCBC 9.36 have been in effect for a while in British Columbia, with prescriptive requirements for the effective insulation (Reff) values of walls; Calculating Reff using the isothermal planes method is the current accepted practise. Participants will learn exactly how to calculate the Reff of a wall using this method; Canadian Wood Council’s free web-based wall thermal calculator assists designers and builders in choosing code-compliant wall construction. Participants will learn how it works and how to use it to choose from over 350 unique walls; The durability of wall assemblies increases in importance as wall airtightness is improved, and insulation levels increase. Participants will learn how the calculator provides guidance on the durability of walls.

Track/Seminar: T3/S1 & T3/S4   Theme: Structural/Engineering/Seismic/Fire
Bio: Robert Jonkman: Completing a Bachelor of Civil Engineering and Management degree at McMaster University in Hamilton in 1994, Rob worked for one year at a structural engineering consulting firm and over nine years at Normerica Building Systems, a Canadian manufacturer of post-and-beam / timber frame buildings as design and engineering supervisor. Rob joined the Canadian Wood Council’s Codes and Standards division in September 2005 as manager of structural engineering. Concentrating on structural engineering, building science, and energy issues, Rob managed the ongoing development of the Woodworks® Engineering Software, participated on the Technical Research Committee of the Canadian Home Builders’ Association, participated on building code committees (structural and energy) and is the secretary/associate for the Technical Committee on the Engineering Design in Wood (CSA O86) standard.

9/ Fire Safety and NEW ASTC Sound Control Solutions
Robert (Bob) Marshall, P. Eng., BDS, LEED AP, BD+C, Building Science Manager, CertainTeed SAINT-GOBAIN, Mississauga, ON

Description: Learn about firewall and fire separation system solutions that prevent the spread of fire and smoke while also providing Apparent Sound Transmission Class (ASTC) smart acoustics for healthy well-being. Both objectives are essential for occupant fire burn and smoke safety and sound control as required by the NBC, BCBC and City of Vancouver. Implementing smart solutions in Part 9 and Part 3 multi-unit mid-rise and tall buildings will result in sustainable habitat.

Learning Outcomes: Highlight fire safety and sound control requirements in codes between dwelling units and secondary suites; Understand the attributes required to achieve fire resistance and acoustic performance; Identify innovative acoustic building materials and assemblies that have been third-party tested by NRC and meet or exceed code STC and ASTC requirements.

Track/Seminar: T3/S2 Theme: Codes, Standards and Building Performance

Bio: Robert (Bob) Marshall: Bob has 40 years of experience as a building specialist. He is co-author of LEED Durable Building with Dr. Ray Cole. He was appointed to NRC’s NECB Standing Committee, as an expert for ISO standards and understands litigation. He was retained by the BC Ministry of the Attorney General as an expert on the $1.5B Leaky Condominium Class Action that was dismissed. His passion is to share code and building knowledge for sustainable habitat.

10/ The Rise of Mass Timber - Down under
Andrew Dunn, CEO, Timber Development Association (NSW) Limited, Sydney, Australia

Description: Australia has seen the rapid rise of tall timber buildings more so than other parts of the world. What makes Australia different? Andrew Dunn, CEO of the Timber Development Association has been at the forefront of mass timber developments in Australia. His presentation will investigate the Australian drivers for mass timber construction, current research and activities to assist this developing market. Furthermore case studies on completed, currently under construction as well as future mass timber buildings will be discussed.

Learning Outcomes: Understand the Australian mass timber market; Understand the drivers for mass timber buildings in Australia; Understand the relationship between design decisions, construction issues
and their effect on costs; Understand the current research and market development activities into mass timber buildings being undertaken in Australia

**Track/Seminar: T3/S3 & T3/S5**  **Theme: Structural/Engineering/Seismic/Fire**

**Bio: Andrew Dunn:** Andrew Dunn has 33 years of experience in the building industry, with the last 27 years within the timber sector. He has a Civil/Structural Engineering degree and a Masters of Timber Engineering. Andrew provides market development service to the Australian timber industry and has extensive knowledge in fire and sound timber technology. More recently he has been involved in the introduction of cross-laminated timber and mid-rise timber framed building systems.

**11/ Acoustics – Avoiding complaints and meeting/exceeding building code requirements**

*André Rioux, Vice President, Sales and Development, AcoustiTECH a division of FINITEC CANADA, St. Lambert-de-Lauzon, QC*

**Description:** This presentation defines building code requirements and outlines acoustic principles in addition to discussing efficient means of acoustic insulation using multiple floor/ceiling assemblies for light wood-frame and mass timber buildings. This presentation will benefit any building and design professionals including architects, designers, acoustic engineers, builders/developers and general contractors. Basic acoustic principles and definitions, impact and airborne sounds in woodframe buildings, means of soundproofing wood-frame buildings, the do’s and don’ts for acoustics in buildings (through case studies and examples) will be discussed.

**Learning Outcomes:** Define general acoustics principles; Demystify sound propagation of noise in different materials; Demystify sound insulation of floor/ceiling assemblies; Recognize the proper acoustic solution.

**Track/Seminar: T4/S1**  **Theme: Structural/Engineering/Seismic/Fire**

**Bio: André Rioux:** Since the creation of AcoustiTECH in 2000, Andre has been traveling all over Canada, the United States and the UAE to make presentations to groups of architects, project managers, general contractors, flooring contractors and more. Andre's experience combined with the expertise of his team has resulted in AcoustiTECH being the number one reference in the field of acoustics for new and existing buildings. After over 15 years, Andre continues to enjoy meeting with professionals and collaborating in the success of their projects.
12/ Mass Timber in the UK: more than just structure
Philipp Zumbrunnen, Director, Eurban Limited, London, UK

Description: Building codes, regulations and client aspirations are ever changing and are key factors which drive innovation and lead to better performance, lower costs, faster construction and lower environmental impact. Among all materials, wood is best positioned to address these concerns. Globally, building codes are recognizing how wood products can now be used -- especially in taller, larger and high-performing structures. This presentation will cover the process of delivering timber buildings from early design to assembly on site, including the use of modern methods like BIM. It will also address how EURBAN deals with concerns around fire, moisture, logistics, assembly on site and the changing code and regulatory environment. The main aim is to help grow the tall timber market in Canada with lessons learned over the last 14 years as EURBAN delivered nearly 300 mass timber projects in a rapidly changing construction environment.

Learning Outcomes: Realize the trends in European codes and regulation which are destined to be in place in Canada and the importance for designers to get ahead of the curve; Gain an understanding of how this changing code environment offers new opportunities for wood use; Understand how wood construction systems require a different way of thinking about design and assembly; Learn how concerns specific to wood (moisture, fire) can readily and simply be addressed with proper planning and execution.

Track/Seminar: T4/S2 & T4/S4 Theme: Codes, Standards and Building Performance

Bio: Philipp Zumbrunnen: Philipp is a specialist timber engineer with over 15 years of experience in the timber industry. He is currently a director at EURBAN Limited in London, where he covers all design and technical matters and manages a team of 15 engineers, designers and project managers. He was born in Switzerland and trained as a carpenter and foreman before working as a project manager for an architectural office in Wald near Zurich which specialized in timber buildings. He then studied at Bern University of Applied Science, Architecture, Wood and Civil Engineering in Biel, qualifying as a timber structural engineer in 2007. During that time he completed an internship at Blumer-Lehmann AG in Gossau near St Gallen and where he continued to work after finishing university and moving back to London to work for Eurban Limited. He has gained extensive experience over the last 15 years, working with developers in the timber housing industry, both in the UK and abroad. In Switzerland this included the £3.7 million development of eight family houses in Wald, and the £1 million development of four holiday homes in Braunwald in the Swiss Alps which involved installation by helicopter. He was project manager and engineer for the £3.4 million development of three three-storey buildings in Appenzell and the £6.7 million development of four terrace houses with 27 flats in total in Denges near Lausanne. Whilst at Eurban he has managed a range of projects from private residential houses to £28 million schools and an eight-storey residential tower, providing 41 homes in Hackney, London N1, which was one of the tallest and biggest solid timber buildings in the UK at the time.

Kevin Rocchi, MASC, P.Eng., Technical Service Specialist, Canadian Wood Council, Ottawa, ON

Description: Both the Wood Design Manual and WoodWorks® software have been updated to include CLT design, as per the NBC 2015 and the CSA O86-14 (Update 1). The first half of this seminar will demonstrate how the 2017 Wood Design Manual (scheduled for sale January 2018) provides guidance
and time-saving tables for designing CLT gravity and lateral load resisting systems, and will also touch on glued-laminated timber (GLT), nail-laminated timber (NLT) and dowel-laminated timber (DLT). An introduction to CLT lateral load design will be discussed. The second half will demonstrate how WoodWorks® Sizer 10 (release scheduled for November 2017) can be used to size gravity load resisting CLT panels.

**Learning Outcomes:** Gravity load design of CLT bending and compression members; Introduction to the design of other mass timber floor assemblies such as GLT, NLT, and DLT; Introduction to the CLT lateral force resisting system design procedures in the CSA O86-14 (Update 1); An overview and demonstration of the gravity load design of CLT in the WoodWorks® Sizer 10 Software.

**Track/Seminar: T4/S3 & T4/S5  Theme: Codes, Standards and Building Performance**

**Bio: Kevin Rocchi:** Kevin joined the Canadian Wood Council in 2014 and holds the position of technical service specialist. Kevin completed both his Bachelor of Applied Science in Civil Engineering (COOP) and his Master of Applied Science degrees at the University of Ottawa. Since joining the CWC, Kevin’s main responsibilities have included updating the technical content of the CWC publications such as the Engineering Guide for Wood Frame Construction, the US Span Book and the Wood Design Manual. Kevin also helps manage the development of the WoodWorks® Design Office software suite, and is licenced as a professional engineer in the province of Ontario.

**14/ Mass Timber: Penticton Lakeside Resort – West Wing**

*Robert Cesnik, Associate, HDR CEI Architecture Associates, Inc., Penticton, BC and Michael Symonds, Project Manager, Greyback Construction Ltd., Penticton, BC*

**Description:** HDR CEI Architecture Associates and Greyback Construction team up to discuss the opportunities and challenges of using mass timber in the recently completed Penticton Lakeside Resort Hotel. CLT (cross-laminated timber) and glue laminated timber were used in combination with light wood framing as the structure and finish in the six-storey, 70 suite hotel which is seen as a viable alternative to the traditional multi-storey concrete and steel building. A dialogue exploring the many design and construction considerations relating to acoustics, fire ratings and environmental impact will be presented.

**Learning Outcomes:** Design and construction considerations using mass timber; Acoustic considerations; Fire rating considerations; Environmental impact.

**Track/Seminar: T5/S1 & T5/S4  Theme: Contractors/Developers/Owners/Builders**

**Bio: Robert Cesnik:** Robert is an architect and associate with HDR | CEI. He is a LEED accredited professional with over ten years of experience and particular expertise in residential, commercial and hospitality facilities. Robert works closely with clients, stakeholders and consultants to find innovative solutions to design challenges. He is noted for his innovative design solutions tailored to the climate and culture of the Okanagan, where he is based. Robert has extensive experience as a project manager in all project phases, from preliminary design through construction administration.
Bio: Michael Symonds: Michael specializes in projects using a construction manager delivery method and has managed multiple award-winning projects that have featured the use of CLT including the Thompson Okanagan Kootenay Commercial Building Awards 2014 Project of the Year, for the Oliver Secondary School.

15/ Mid-Rise Engineering Considerations for Engineered Wood Products
Jeff Olson, P.E., P.Eng., EWP Technical Services Manager, Boise Cascade Engineered Wood Products, White City, OR

Description: Wood products take on a seemingly infinite variety of shapes and forms. While many designers are familiar with engineered wood products such as I-joists, wood sheathing and structural composite lumber, it is important to understand the structural requirements associated with each in order to achieve proper performance—especially in mid-rise applications. With an emphasis on products used in commercial and multi-family buildings, this presentation will cover fastening requirements, load capacity and proper detailing.

Learning Outcomes: Overview and availability of wood I-joists and structural composite lumber (SCL) products; Dimension stability in regards to moisture content changes and the differences between solid wood products; Lateral design, including information on I-joist diaphragm capacities and the detailing of rim board connections; Fire resistance/fire barrier design, including wood I-joist assembly requirements and SCL char rate equivalency to solid wood.

Track/Seminar: T5/S3 Theme: Contractors/Developers/Owners/Builders

Bio: Jeff Olson: Jeff holds Bachelor’s and Master’s degrees in Civil Engineering from Washington State University with an emphasis in structural engineering and wood products. He has 22 years of experience in the engineered wood industry, including technical services, literature, product development and testing. Currently EWP technical services manager for Boise Cascade in North America, Jeff is licensed as a professional engineer in British Columbia, Alberta, Saskatchewan, Manitoba and Northwest Territories/Nunavut, as well as several western US states.

16/ “The price is right, but will this product work in a mid-rise project?” Tips for choosing the right engineered lumber products and fire-resistance assemblies
Steve McManus, Product Support Engineer, Weyerhaeuser, Surrey, BC

Description: Not all of the products available in a typical lumber yard are suitable for a mid-rise wood-framed building. Whether the need is structural or fire-resistance, this session will take you through some common situations, and provide advice to help you write a specification that will avoid substitution with an attractively-priced (but potentially unsuitable) product or system.
Learning Outcomes: Some product grades can only take nails at 6” (150 mm) spacing. Find out which ones can do better than that; Which is the better choice for rim board and blocking: LVL or LSL?; Looking to use 1 layer of gypsum for your fire-rated floor assembly? Find out which I-joists are suitable for a 1 hour fire-resistance rating with a single-layer of gypsum; How do you make sure your building material supplier is qualified to generate complex mid-rise shop drawings?

Track/Seminar: T5/S5 Theme: Contractors/Developers/Owners/Builders

Bio: Steve McManus: Steve McManus is a professional engineer who works with suppliers, architects, engineers, and building officials, supporting applications of engineered lumber products (ELP) in residential and light commercial construction. Currently product support engineer for Weyerhaeuser Canada, Steve is committed to providing exceptional technical support and training. A graduate of the University of New Brunswick, Steve has been fortunate to experience many facets of the engineered wood industry over the past 18 years.

Lunchtime Keynote Presentation:

Wood Buildings: towards a transformative global movement in our built environment
Michael Green, Principal - Architect AIBC FRAIC AIA, MGA - Michael Green Architecture, Vancouver, BC

Description: Architect Michael Green is well-known for his advocacy of the modern mass timber and tall wood movements. He is dedicated to bringing attention to several of the overwhelming challenges in architecture today. The first is climate change caused by the impact of the built environment. The second is the profound reality that over the next 20 years, 40% of our population will need a new affordable home. Michael believes in championing the shift to new ways of building and new timber-based building systems that will complement the intersection of our greatest building challenges. He will describe his vision of how designers, builders, code officials, educators, the supplier community and the wood industry can step up to meet the challenges through further technological innovation, code revisions, supply chain efficiency, replicable designs for common building types, increased value-added wood product availability, increased proficiency in wood design and building and the advancement of a culture of wood acceptance. Michael will conclude with a description of the benefits for our communities and our industry by embracing his vision of timber-based building systems in our future built environment.

Learning Outcomes: The effect of material choices on climate change; Understanding of the need for affordable housing caused by world population growth; New ways of building that are more
environmentally friendly; Exploration of the cost benefits and solutions to the engineering challenges of taller and larger wood buildings.

Bio: Michael Green: Michael Green is an architect known for his research, leadership, and advocacy in promoting the use of wood in the built environment. He lectures internationally on the subject, including his 2013 TED talk on “Why We Should Build Wooden Skyscrapers,” which has been viewed over a million times.