



Session Descriptions

2023 Conference & Annual General Meeting

May 28 to 31

River Rock Casino Resort

Richmond, B.C.

The State of Tallwood Construction and Lessons Learned from the Mass Timber Fire Test Program

Shawn Keyes and Marc Alam, Canadian Wood Council

Session Description

This presentation will delve into the state of tallwood building projects in British Columbia and across the world. It will discuss current design and construction provisions in Canada and some of the latest precedent setting projects locally and abroad.

As developers and design teams continue to build taller and more ambitious structures out of wood, evidenced based technical justification is key to building confidence. This session will provide an overview of the Mass Timber Fire Test Program, the largest mass timber fire test in the world and key findings which will be used to support the approval of tall and large mass timber buildings in Canada.

Shawn Keyes is the Executive Director for the Wood WORKS! BC program and is an accomplished structural engineer who has led the design and delivery of projects across Canada. Prior to joining Wood WORKS! BC in 2022 he spent over six years working for the internationally recognized engineering firm Fast + Epp, who are best known for creative and innovative uses of wood in construction.

Shawn holds a bachelor's degree in engineering science from the University of Western Ontario, and a master's of engineering from Carleton University. He is currently completing an MBA at the UBC Sauder School of Business.



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Marc Alam is a member of the Canadian Wood Council. He is a Manager of Codes and Standards in the fire division. Marc completed a bachelor's degree in civil engineering at Carleton University, and is currently in the process of completing a Ph.D. in fire safety engineering also at Carleton University. His doctoral thesis studies the behaviour of heavy timber connections in fire conditions.

As manager of codes and standards in fire and acoustics, Marc assists through participation in CWC's building code and standards fire and acoustic related initiatives and the development of CWC's fire design tools, as well as code-related fire and acoustic research projects.

2020 National Plumbing Code Changes

Doug Vance, City of Coquitlam

Session Description

This session provides an overview of changes contained in the 2020 National Plumbing Code (and a couple of plumbing related changes contained in the 2020 National Building Code).

Doug Vance's present career with the City of Coquitlam is managing and guiding a staff of 19 including building and plumbing inspectors. He also composes and writes necessary reports to City council, is responsible for interviewing possible staff hiring, assists in preparation of department budgets; and perhaps most important of all, also deals with day-to-day department business.

Prior to employment with the City of Coquitlam, Doug's most interesting private building industry experience was a partnership in a plumbing business for four years, mainly with design and installation of building, plumbing and heating systems.



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Mitigating Liability by Updating your Building Bylaw and Policy

Brian Lee and David Tupper, Municipal Insurance Association of BC

Session Description

Brian and David will begin with a refresher on building inspection liability. Then they will review the MIABC Model Building Bylaw five years after its introduction and will discuss the importance of policy, consistency, and documentation as risk management tools.

David Tupper, Claims & Risk Analyst, Municipal Insurance Association of British Columbia - David has been handling liability claims for thirty-one years. He has a Civil Engineering degree from the University of Alberta and spent the first seven years of his insurance career handling professional liability claims for architects, engineers, and land surveyors.

Since 1998, David has managed all manner of liability claims for local governments dealing with all governmental departments and areas of municipal operations. With his engineering background and breadth of experience, David specializes in more complex claims, particularly those involving land use and building regulation.

As a Risk Analyst, David has also been involved in risk management, public speaking engagements, and various other tasks. David has participated in several stakeholder groups initiated by the Province, primarily in the area of building regulation.

Brian Lee, Legal Counsel, Municipal Insurance Association of British Columbia - Since his call to the British Columbia Bar in 2016, Brian has practiced exclusively in the area of insurance law. His practice focuses on complex personal injury claims, occupiers' liability, and property damage claims. Brian's focus is to provide easy-to-understand advice and opinions to our members and to resolve claims effectively with a view to saving litigation costs and expenses.

Prior to joining the MIABC in 2021, Brian was counsel for large Canadian, American, and global insurance companies. He advised adjusters, claims examiners, and claims managers on all aspects of litigated insurance claims. Brian has appeared before the Provincial Court of British Columbia and the Supreme Court of British Columbia, as well as the Civil Resolution Tribunal. He has also represented clients in complex multi-party negotiations and mediations, achieving favourable settlements.



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Brian holds a Juris Doctor and a Bachelor of Commerce with Honours, specialization in Finance, both from the University of British Columbia. During his time in law school, he has extensively volunteered his time with the school's legal clinic, the Law Students' Legal Advice Program. Brian also obtained his Chartered Insurance Professional (CIP) designation to better serve his clients in the insurance industry.

Beyond the Traditional Use of Wood in Building Construction

Conroy Lum, FP Innovations

Session Description

The TWBG was developed to assist in the design and construction of mass timber buildings in taller and larger buildings than traditionally built with in wood. The presentation will highlight how the TWBG supports those decision makers involved in delivering a mass timber structure following the Alternative Solutions path.

Conroy Lum is the Lead Scientist from FPInnovations Sustainable Construction group in Vancouver. Co-editor of the first and second editions of FPInnovations Technical Guide for the Design and Construction of Tall Wood Buildings in Canada (TWBG). Current or former member of various committees in Canada and the US that develop or maintain engineering in wood design standards, and wood product standards.

Updates in Reclaimed Water Systems

Kevin Wong, UPONOR

Session Description

There is new code language in the 2020 NPC to use as well as enabling standards to reference and apply to create best practices for water reuse, rainwater harvesting and enhanced code applications like in the VBBL to further carry the ball forward on water conservation.



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Kevin Wong is the Canadian Codes Manager with UPONOR. He has a background in plumbing, business, water quality and environmental engineering. Prior to joining UPONOR, Kevin spent a 12 year tenure as the Technical Manager for CIPH & the Executive Director of CWQA. He has served in senior roles with MIFAB , Cimatic (makers of the ToxBox™) and Jacques Whitford Engineering Ltd as a Sr. Project Manager & Scientist in their risk assessment group.

He is actively involved for various US, Canadian and International standards/codes committees including NSF 61& NSF 372 (low lead), B64 (backflow), various WQA committees (water treatment), National Master Spec of Canada, and observes on NSF 444 (Prevention of Injury and Disease Associated with Building Water Systems), the various CSA & NSF committees. Kevin is an active volunteer on the Standing Committee on Plumbing & HVAC at Codes Canada.

Kevin chairs the CSA B128 technical committee for grey water reclamation.

Building Carbon Pollution Standard

Derek de Candole, City of Victoria

Session Description

This presentation will provide an overview of the engagement, permitting data, and modelling inputs that provided the City of Victoria and the District of Saanich with the information necessary to plan to adopt the carbon pollution standards.

Derek de Candole has been a Community Energy Specialist at the City of Victoria since 2021. His focus is on reducing emissions from buildings in the community through the development of policies, programs and regulations. Derek has over a decade of local government experience, working in economic and community development before beginning his work in climate action in 2017 with the City of Kamloops.

He led the engagement and policy development for Step Code adoption while at the City of Kamloops and more recently collaborated at the regional level to develop the Step Code and Carbon Pollution Standards policy at the City of Victoria. Derek is passionate about climate action that is economic development.



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Building Department Best Practices

Sam Palmer, International Accreditation Services

Session Description

Understand what “Best Practices” are and how the teams from IAS/International Accreditation Service; MJC/Major Jurisdiction Council; and the BMC/Continuity & Outreach Subcommittee gather these professional procedures from many different Building Departments across the US each year to assist our members. These “Best Practices” will provide insight into how some of the leading departments operate.

Sam Palmer is the Deputy Executive Officer for the Nevada State Contractors Board in Las Vegas, Nevada. Previously, he was the Assistant Director for the Clark County Building Department. He currently serves as the Chair of the ICC Major Jurisdiction Committee, Past President of ICC Region I and is a member of the IAS Board of Directors. He was the 2022 ICC Gerald R Jones Code Official of the Year awardee.

2020 National Building Code Changes

Andre Laroche, National Research Council

Session Description

The presentation will highlight the significant changes introduced into the National Model Codes 2020. The 2020 edition address different operations and occupancies in buildings, and energy use. A brief problem description will explain the rationale for the changes, their potential impacts and the proposed solutions. Some of the subjects covered in the presentation will include encapsulated mass timber construction (EMTC), large farm buildings, home-type care occupancy, openable windows in residential occupancies, energy efficiency tiers for all buildings, and accessibility.

André Laroche is Manager of Regulatory Solutions supporting the development of the National Model Codes (i.e. National Building Code, National Fire Code, National Plumbing Code, National Energy Code for Buildings and National Farm Building Code) with Codes Canada at the



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National Research Council, Construction Research Centre. He leads technical support to the Canadian Board on Harmonized Construction Codes responsible for the content of the codes since 2006. After graduating as a Mechanical Engineer in 1988, he became principal engineer for the design and manufacturing of refrigeration equipment for delivery trucks and warehouses. He then supervised the construction of two manufacturing plants of value-added lumber products (finger-jointed and upholstery frame lumber) and worked as a project engineer for a sprinkler contractor. Before joining NRC, Mr. Laroche acted as a Fire Engineer Consultant for FM Global where he specialized in dust hazards, hydroelectric power plants, aluminum smelters, textile and plastic industry.

Brief Overview of TECA

Andrew Byker, TECA

Session Description

TECA is dedicated to supporting BOABC inspectors in their mission to ensure the safety and compliance of buildings and structures throughout British Columbia. We strive to provide the highest quality education and resources to help inspectors stay up-to-date on the latest codes and regulations, and to perform their duties with the highest level of professionalism and expertise.

Building Enforcement: Preparing a Case for Legal Enforcement

Jeff Locke, Stewart McDannold Stuart

Session Description

Jeff Locke is an local government litigator with significant practice experience in building bylaw enforcement matters. In this session Jeff will share his knowledge and experience from the perspective of preparing enforcement cases for court – and with a focus on identifying building official evidence collection, organization and presentation methods which will best assist legal counsel in presenting enforcement cases before a judge. The presentation will include an overview of the civil legal enforcement process and a variety of “tips and takeaways” which are intended



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to help bring thoughtful evidence preparation and greater effectiveness to enforcement cases. This presentation is suitable for all levels of experience.

Jeff Locke has been representing local governments in litigation matters for over 25 years and is regularly retained by the MIABC as external liability defence counsel. Jeff has a broad local government litigation practice, and has defended governments in dozens of building inspection cases ranging from claims pertaining to small dwellings to large, complex multi-family dwellings and commercial buildings. Jeff lives in Victoria and practices with the local government law firm Stewart McDannold Stuart.

Offsite Construction: The Process to Achieve Quality, Speed, and Sustainability

Speed and Sustainability, James Broadhead

Session Description

Offsite construction involves the assembly of building components or modules in an off-site location prior to delivery and installation on-site, thus offering several benefits including cost savings, improved quality and faster turnaround time. Offsite construction has been cited as a more sustainable option than conventional building practices. Join James to discuss all things offsite construction and what considerations the AHJ may want to think about when reviewing offsite projects.

James Broadhead has been in preconstruction in the offsite sector for more than a decade. He has extensive experience across multiple markets - residential, commercial, industrial, and healthcare - which puts him in a great position to help owners achieve their vision. He also holds a MSc in Offsite Housing Construction from University of Wolverhampton, UK and wrote his dissertation on how to deliver affordable housing through offsite construction in Canada.



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Building Bridges: Overcoming Integration Challenges in Government Software

Aubrey Leblanc and Shak Gobért

Session Description

This presentation will focus on how software integration is an important, yet often tedious and confusing, part of adopting new government systems. LeBlanc and Gobért will share how popular software across British Columbia can be integrated with Cloudpermit's software solutions for efficient and simplified community development. They will discuss the challenges associated with having silos in government departments and how staff can overcome them with the right tools.

Aubrey LeBlanc is Cloudpermit's Country Director for Canada. He has invaluable experience in the building industry as he served as the OBOA's Chief Administrative Officer for almost ten years. He can be reached at aubrey.leblanc@cloudpermit.com.

Shak Gobért is one of Cloudpermit's Customer Success Managers. He has extensive local government experience and has played an invaluable role in integrating Cloudpermit with governments across British Columbia. He can be reached at shak.gobert@cloudpermit.com.

Local Prefab Mass Timber Solutions Panel

Gary Penway, MCIP, Helen Goodland, Scius Advisory Services, Brad Doff, SFU Renewable Cities, Norm Couttie, Ecosse Development Corp, Tim Ryce, City of North Vancouver

Session Description

Mass timber is part of an emerging worldwide construction shift towards offsite construction with low embodied carbon materials and is expected to be a significant share of future construction in B.C.

Prefabricated buildings made from sustainably sourced timber can generate a triple win of low-carbon buildings, secure jobs in small and big towns and a sustainable forest products sector that gets more value with less fibre.



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B.C. and Canada has the expertise to lead this construction category, and as of 2019 B.C. allows mass timber construction up to 12 storeys, yet uptake remains low for a wide variety of reasons.

In this workshop, attendees will learn about the release of Renewable Cities' new guide, *Building Capacity*, that helps solve the biggest local barriers, specifically zoning bylaws, design guidelines and building permitting processes. This guide and presentation will help local governments, developers and manufacturers navigate this emerging building form and help accelerate prefab mass timber mid-rise construction in B.C. and beyond.

Building Capacity is the culmination of a year-long process of research and engagement with hundreds of developers, design consultants, builders, manufacturers, local government planners and building officials.

Gary Penway, MCIP, Principal, Gary Penway Consulting: Gary is a Registered Professional Planner (RPP) with over 35 years of municipal planning and development experience. He was an integral part of the City of North Vancouver's (CNV's) progressive efforts to address climate mitigation and adaptation. He had a lead role in the preparation of two Official Community Plans and was a contributor to a third OCP. He rewrote the City of North Vancouver's Zoning Bylaw and has prepared hundreds of Zoning amendment bylaws. During his time, Gary led the effort to remove OCP and Zoning barriers in support of 6 storey wood frame construction, responding to sea level rise, addressing building energy efficiency, enabling green building systems, and responding to the leaky condominium crisis. Gary wrote the CNV's first Sustainable Development Guidelines and was a project lead for the City's Climate Change Adaptation Plan.

Helen Goodland, Principal, Head of Research and Innovation at Scius Advisory Services: Helen is an architect registered in the UK and has an MBA from the University of BC. She brings over 30 years of experience working on transformative solutions for the real estate and construction industries in Canada and around the world. She is also a compelling public speaker, facilitator and educator. Helen is firmly committed to achieving truly sustainable buildings within the next decade. She is also passionate about advancing leadership opportunities for women in construction technology. She participates on numerous boards and committees. Currently she serves on the National Zero Waste Council's construction taskforce, on the Board of Directors of CanBIM, and has been the chair of the UN Sustainable Buildings Initiative's Materials Technical Committee. Helen is one of the B.C. Sustainable Energy Association's climate action heroes and has been nominated as a YWCA Woman of Distinction. In 2017, she received the Vancouver Regional Construction Association's Outstanding Woman in Construction Award.



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Brad Doff, Senior Project Manager, SFU Renewable Cities: Brad has extensive experience over 14 years working for local government and non-profits on issues of sustainability, climate mitigation, adaptation, urban ecology and green infrastructure. Brad has been managing Renewable Cities' prefabricated mass timber portfolio since 2021, delivering on key projects, helping shift to greater adoption of this novel building approach. He has managed the establishment of the Zero Emission Innovation Centre with a \$22M federal endowment focused on scaling climate action in Metro Vancouver and has also managed BC's progressive green building networks for CAGBC, led sustainability related policy development and developed multiple community sustainability and an award-winning adaptation plan as coordinator of Thunder Bay's municipal sustainability office. Brad has consulting and significant project management experience and has helped create a post-secondary launch program for at-risk youth to find meaningful work in the high-performance building industry.

Norm Couttie, Ecosse Development Corp, former President of Adera Development Corp has been in the development industry for over thirty years. As a registered architect, he designed and managed projects ranging from high tech computer facilities to an entire new town in northern BC. As a consultant, he advised public and private sector clients and managed major rezonings. As a developer, he completed projects ranging from office/commercial complexes, to affordable suburban townhomes, to ultra-luxury Coal Harbour high rises. He has chaired or served on many industry committees, design panels, municipal planning and public art commissions and has lectured on rezoning processes. Norm was most recently President of Adera Development Corp. Significant projects include: ten residential projects at the University of British Columbia, including one of the first six-storey wood frame buildings in BC, the first use of in-building waste water heat recovery, and the first market residential building utilizing Cross Laminated Timber construction.

Tim Ryce, Chief Building Official, City of North Vancouver, North Vancouver, BC Tim Ryce is a Professional Engineer and Chief Building Official for the City of North Vancouver. He has developed and implemented construction regulations relating to green building, energy efficiency, and accessibility, both at the local and national level, acted as a peer reviewer for FPInnovations' Technical guide for the design and construction of tall wood buildings in Canada, and is a member of the BC Mass Timber Advisory Council. Recently, he introduced new performance-based requirements aimed at reducing greenhouse gas emissions in new non-complex residential buildings while quickly adapting the City's in-person and paper-based permitting processes due to the COVID-19 pandemic.