



# WOOD FIRST FORUM

Whistler Conference Centre  
September 10-12, 2015

# WOOD FIRST FORUM 2015 Agenda

## Thursday, September 10 - 5 LU's

9:30am	Registration: Whistler Conference Centre, Main Lobby
10:30am-11:30am	<b>SESSION 1: Incorporating Traditional Japanese Wood Building Concepts Into Innovative, Modern Timber Structures</b> - Presenter: Keisuke Maeda, Architect /Principal - UID, Fukuyama-City Hiroshima, Japan - Rainbow Theatre
12:00pm-1:00pm Lunch & Learn	<b>SESSION 2: Navigating the Uncharted Territories of Wood</b> Presenter: Lubor Trubka, Architect AIBC, FRAIC, Principal - Lubor Trubka Associates Architects - Garibaldi Meeting Room
1:15pm-2:15pm	<b>SESSION 3: Renovation With Prefabricated Timber Elements - Experiences From Finland</b> Presenter: Simon le Roux, Architect, Senior Project Researcher - Department of Architecture , Aalto University School of Arts, Design and Architecture, , Espoo, Finland - Rainbow Theatre
2:30pm-3:30pm	<b>SESSION 4: Integrated Design Building; First Composite Cross Laminated Timber Building In Northeast USA</b> - Presenter: Tom S Chung, AIA, LEED BD+C, NCARB, Principal - Leers Weinzapfel Associates, Boston MA & Robert Malczyk, MAsc, P.Eng. Struct.Eng. MStructE, MBA, Principal - Equilibrium Consulting, Vancouver, BC - Rainbow Theatre
3:45pm-4:45pm	<b>SESSION 5: UBC SUB ("Nest") Project</b> Presenter: Joost Bakker, BA, BArch, Architect AIBC, AAA, OAA, SAA, FRAIC, RCA, Principal, DIALOG - Rainbow Theatre
6:15pm-9:30pm	Welcome Reception - Roundhouse Lodge, Peak of Whistler Mountain

## Friday, September 11 - 2.75+ LU's

8:00am-9:00am	Breakfast & Grand Opening Ceremony – Whistler Conference Centre Foyer
9:00am-12:00pm	12 <sup>th</sup> Annual GBM & Networking Tradeshow - Whistler Conference Center
11:45am-1:00pm	<b>Lunch &amp; Learn: Timber Concrete Composite Solutions</b> - Presenter: Thomas Tannert, PhD, Peng, Associate Chair Wood Building Design & Construction, Assistant Professor, Wood Science & Civil Engineering, UBC - Garibaldi Meeting Room
1:30pm-3:30pm	Wood First Architects and Exhibitors Mini Seminar Sessions - Whistler Conference Centre
4:00pm-5:00pm	Site tour of Solana - Whistler, BC
6:30pm-10:30pm	GBM Evening Networking Dinner/Reception - Whistler Conference Centre

## Saturday, September 12 - 1 LU

8:00am-9:00am	Breakfast – Whistler Conference Centre Foyer
9:00am-12:00pm	12 <sup>th</sup> Annual GBM & Networking Tradeshow - Whistler Conference Center
11:45am-1:00pm	<b>Lunch &amp; Learn: What Specifiers Need To Know About Selecting Quality Cedar Shakes &amp; Shingles</b> - Whistler Westin Resort & Spa
1:00pm-3:00pm	Shake & Shingle Craftsmen Packing Contest Event - Whistler Westin Resort & Spa

\*Please note, free wifi can be accessed by connecting to 'BC Wood Wifi'. There is no password required to connect to the network.

# Thursday, September 10

**9:30am** Registration: Conference Centre, Main Lobby

**10:30am-11:30am** **SESSION 1:** Incorporating Traditional Japanese Wood Building Concepts Into Innovative, Modern Timber Structures  
Presenter: Keisuke Maeda, Architect /Principal - UID, Fukuyama-City Hiroshima, Japan

This seminar looks at the possibilities of designing new wooden buildings in North America through incorporating elements of traditional Japanese wood construction. Using completed projects as real examples, the creation of comfortable interior environments through the incorporation of wind, light, and greenery will be explained. The “free design technique” derived from traditional Japanese wood construction will also be explored as an option for designing new types of wooden buildings in North America.

**12:00pm-1:00pm** **SESSION 2:** Navigating The Uncharted Territories Of Wood  
Lunch & Learn  
Presenter: Lubor Trubka, Architect AIBC, FRAIC, Principal - Lubor Trubka Associates Architects

This presentation will describe the significant opportunities for wood in construction and attempt to stimulate the desire to build with wood by illustrating its potential and natural advantages over other building materials in a selection of construction examples. This natural and readily available resource does not have inherent limitations, but there are challenges, which will be discussed.

**1:15-2:15pm** **SESSION 3:** Renovation With Prefabricated Timber Elements – Experiences From Finland  
Presenter: Simon le Roux, Architect, Senior Project Researcher - Department of Architecture , Aalto University School of Arts, Design and Architecture, , Espoo, Finland

Timber-based Element System (TES) is the result of international research and pilot projects with partners from Germany, Norway and Finland. TES is a lightweight facade retrofit method using prefabricated timber based elements to retrofit the building envelope with a multifunctional energy façade. This tested system improves building energy efficiency up to passive house level. Additional benefits include low Life Cycle Assessment impacts, life cycle savings with durable facade elements and reduced operational costs. Value is added by renewing the architectural image of the building and improved air tightness and ventilation of apartments that enhance living comfort. Timber-based Element System is an example of innovation in timber construction and the complex issues associated with the refurbishment of buildings. The presentation reveals valuable lessons for designers, builders and owners that have been learned from pilot projects.

**2:30-3:30pm** **SESSION 4:** Integrated Design Building; First Composite Cross Laminated Timber Building in Northeast USA  
Presenter: Tom S Chung, AIA, LEED BD+C, NCARB, Principal - Leers Weinzapfel Associates, Boston MA; & Robert Malczyk, MASC, P.Eng. Struct.Eng. MISTructE, MBA, Principal - Equilibrium Consulting, Vancouver, BC

This seminar will present the close collaboration between architect and structural engineer in designing the first significant mass timber building in Northeast United States. Given its unique form with multiple cantilevers, a central green-roof garden with significant soil loading and an expressive structural design that fulfills the mandate for a demonstration of engineered timber structure, the building design is a result of an iterative and collaborative design process that navigated various budgetary and constructability challenges that came with a precedent setting building in this region dominated by steel construction. The presenters will share the appropriate use of timber, steel and concrete to seamlessly combine architectural and structural objectives that demonstrate structural logic in shaping architectural spaces and how this resulted in pedagogical design for the new home of the departments of Architecture, Landscape Architecture and Building Construction Technology.

**3:45-4:45pm** **SESSION 5:** Designing The University Of British Columbia Student “Nest” Project  
Presenter: Joost Bakker, BA, BArch, Architect AIBC, AAA, OAA, SAA, FRAIC, RCA, Principal, DIALOG

The University of British Columbia’s new Student Union Building formally named the AMS (Alma Mater Society) Student Nest officially opened this summer. This project has many unique design characteristics resulting it in being an extremely complex and challenging project. This seminar will present an overview of the design and design process including the interaction among the student body, the university community and architects, how LEED Platinum was achieved and the extensive use of wood elements throughout the building.

**6:15pm - 9:30pm** Welcome Reception - Roundhouse Lodge, Peak of Whistler Mountain

# Friday, September 11

<b>8:00-9:00am</b>	Breakfast & Grand Opening Ceremony – Whistler Conference Centre Foyer
<b>9:00am-12:00pm</b>	12 <sup>th</sup> Annual GBM & Networking Tradeshow
<b>11:45pm-1:00pm</b>	Lunch & Learn: Timber Concrete Composite Solutions Presenter: Thomas Tannert, PhD, Peng, Associate Chair Wood Building Design and Construction, Assistant Professor, Wood Science and Civil Engineering, The University of British Columbia
<b>1:30-3:30pm</b>	Wood First Architects and Exhibitors Mini Seminar Sessions - Whistler Conference Centre
<b>4:00-5:00pm</b>	Site Tour of Solana
<b>6:30-10:30pm</b>	GBM Evening Networking Dinner/Reception - Whistler Conference Centre

## SEMINAR INFORMATION

### Lunch & Learn Seminar: Timber Concrete Composite Solutions

Presenter: Presenter: Thomas Tannert, PhD, Peng, Associate Chair Wood Building Design and Construction, Assistant Professor, Wood Science and Civil Engineering, The University of British Columbia

Investing in composite timber-based structures is one approach with potential to capitalize on design innovations and expand the uses of sustainable timber. Timber Concrete Composite (TCC) systems, initially developed to refurbish historical buildings in Europe, are gaining popularity in North America. An important step towards the increased use of TCC systems in North America is obtaining the experimental proof that they can be designed safely and competitively. This seminar will discuss the performance and the design process of TCC and their advantages in today's holistic driven construction. Results from an extensive test program at the University of British Columbia will be presented.

### Mini-Seminar Series with Exhibitors

1:30pm-3:30pm

The mini-seminars will be held on the Whistler Conference Centre Trade Show Floor. There will be eight accredited mini-seminars, each lasting 20 minutes and covering a variety of products and issues. In total, the 8 seminars will cover 8 different topics including: engineered wood products, timber frame & connectors, millwork products, and more. Chairs and refreshments will be provided at each seminar station which will be held at exhibitors booths. There will be 5 minute breaks between sessions and a 15 minute break after session 5.

#### Stream A

- Daizen Joinery
- Structurlam
- Woodtone
- Western Reclaimed Timber Corp.
- Mira Timberframe
- Western Red Cedar Lumber Association
- Safer Building Solutions

#### Stream B

- Brisco Manufacturing
- S&W Cedar Shakes & Shingles
- FraserWood Industries
- Terminal Forest Products
- Kettle River Timber Works
- Westeck Windows
- StructureCraft Builders

## SITE TOUR OF SOLANA

Solana is a 19 unit multi-unit high end apartment project utilizing BC made LVL Mass Timber products in a variety of unique applications including: elevator shaft wall, exterior balconies, structural member, built up with a walking surface on the top, attractive ceiling with LVL panels exposed, and post and beams supporting the exposed flooring. Solana was designed and built to exceed BUILT GREEN® Platinum Certification through a number of innovative methods and systems which will be discussed during the tour.

#### Speakers and Tour Guides:

- Brent Murdock, Murdock and Company Architects – Designing Architect
- Ed Lim, United Building Systems- Project engineer
- Ron Nadeau, Innovation Building Group Ltd – Builder
- Kim-Jana Henze, Brisco Manufacturing, LVL Mass Timber supplier



# STREAM 'A' MINI-SEMINARS

**MINI-SEMINAR PROGRAM: 1:30 – 3:30 PM**

**EACH OF THE 7 SEMINARS LASTS 15 MIN; TOTAL 7 X 0.25 HOURS = 1.75 LU's**

## **HOW TO SPECIFY AND CONTROL TIMBERFRAME**

**Presenter: Dai Ona, Daizen Joinery Ltd**

This seminar will cover key timberframe issues from how to specify the material through to designing concepts.

1. Learn about which timber grades are best suited for specific applications to ensure a project's safety
2. Learn about joinery connection specifications to ensure strongest possible connections
3. Learn how new technology impacts joinery design
4. Learn about structural cladding timber

STN #1

## **FIRE RETARDANT TREATMENT FOR EXTERIOR WOOD PRODUCTS**

**Presenters: Bill Hendricks, Safer Building Solutions**

This seminar will discuss fire treatments available for Cedar Roofing, Decking, and Siding Products so they can meet the strictest building codes for fire zones. The seminar will also discuss the advantages of treated Cedar Roofing relative to longevity and structural characteristics. In this seminar, you will learn:

1. Fire codes and treatments for cedar roofing, decking and siding
2. Structural advantages of cedar roofing
3. About the do's and don'ts of painting or staining treated cedar products

STN #2

## **BENEFITS OF COATING WOOD VS. COMPOSITE MATERIAL FOR EXTERIOR USE**

**Presenters: Bryan Payne and Shayne Unger, Sales Territory Managers, Woodtone**

This seminar will focus on the benefits of coating "real" wood vs. composite materials especially as it relates to exterior trim and accessories. In this seminar, you will learn:

1. Innovative treatment processes used to eliminate rot in SPF exterior products
2. Cost analysis comparing real wood vs. popular composite products
3. Life cycle cost analysis

STN #3

## **REAL CEDAR - A TRULY GREEN BUILDING MATERIAL**

**Presenters: Paul Mackie, Technical Advisor, Western Red Cedar Lumber Association**

This seminar will present the benefits of designing with sustainably harvested western red cedar. You will learn:

1. Environmental management & certification
2. Emotional characteristics of western red cedar
3. Western red cedar grades and sizes
4. Finishing and installation best practices

STN #4

## **INCORPORATING RECLAIMED WOOD IN DESIGN**

**Presenters: Bruce MacDonald and Amika Scott, Western Reclaimed Timber Corp**

This seminar will discuss the benefits of specifying reclaimed wood and the pitfalls to avoid. In this seminar, you will learn:

1. The advantages of reclaimed wood (environmental, quality, aesthetics)
2. Discover some unique constraints when working with reclaimed wood
3. How to plan a project incorporating reclaimed wood

STN #5

## **UNDERSTANDING TIMBER JOINERY DESIGN**

**Presenters: Trudy Gautier, Design Manager, Mira Timber Frame**

This seminar will explore how timber joinery is designed and used for timber framed raising for residential or commercial applications. In this seminar, you will learn:

1. How mortise and tenon joinery create strong connections
2. Understand the art form and precision of detailed joinery
3. The ease of designing with solid timber joinery
4. See how material sizing is managed for structure, aesthetics and pricing

STN #6

## **SPECIFYING CROSS LAMINATED TIMBERS**

**Presenters: Colin Chornohus and Ron McDougall, Structurlam Products LP**

Learn more about North America's most talked about and innovative building system, Cross laminated Timber (CLT).

Western Canada is into year four of producing and supplying CLTs and this seminar will focus on discussing a multitude of projects where "Mass Timber" has been used. In this seminar, you will learn:

1. How to optimize the use of CrossLam in your design
2. The benefits of off-site fabrication as it relates to glulam & CrossLam construction
3. How to put the CNC robots to work on your project - they can work long hours and they don't talk back

STN #7

# STREAM 'B' MINI-SEMINARS

**MINI-SEMINAR PROGRAM: 1:30 – 3:30 PM**

**EACH OF THE 7 SEMINARS LASTS 15 MIN; TOTAL 7 X 0.25 HOURS = 1.75 LU's**

## **ALTERNATIVE MASS TIMBER WITH EXTRAORDINARY AESTHETICS AND STRENGTH**

**Presenter: Kim-Jana Henze, Brisco Manufacturing Ltd**

This seminar will introduce Laminated Veneer Lumber (LVL) as a reliable structural element to the growing Mass Timber Construction Industry. In this seminar, you will learn:

1. Manufacturing processes and mechanical properties of LVL-based Mass Timber products
2. Visual aspects of this contemporary engineered wood product
3. The various design characteristics and applications of this innovative product

STN #1

## **INCORPORATING CEDAR SHAKES, SHINGLES & SIDEWALL INTO YOUR COMMERCIAL OR RESIDENTIAL PROJECT**

**Presenters: Michael Watkins, S&W Cedar Shakes & Shingles**

This seminar will present the advantages of designing with Yellow Cedar for Cedar Shakes, Shingles, and Sidewall for both commercial and residential project, including its beauty and durability. In this seminar, you will learn:

1. The advantages of using Yellow Cedar
2. Why not all Yellow Cedar is manufactured the same
3. When treatment applications are most suitable (CCA and Fire Retardant)

STN #2

## **FROM SITE TO SHOP TO SITE: BIM, DIGITAL SURVEYING, LAYOUT AND MANUFACTURING**

**Presenters: Kai Korinth, Commercial Projects, FraserWood Industries**

This presentation provides an overview of the use of digital technology to aid manufacturing and site installation of heavy timber structures. In this seminar, you will learn:

1. Learn how digital surveying and layout can improve efficiency and accuracy on the building site
2. Understand the difference between BIM for architectural design vs BIM for manufacturing
3. Learn about digital manufacturing for heavy timber structure

STN #3

## **INTRODUCTION TO ENGINEERED WESTERN RED CEDAR TIMBERS**

**Presenters: Mike McInnes; Sarah Fryer, Terminal Forest Products**

This seminar will discuss Engineered Western Red Cedar, and its superior performance, serviceability, and appearance. In this seminar, you will learn:

1. The characteristics of Engineered Western Red Cedar as a superior building product
2. Western Red Cedar grades / finishing / installation guidelines
3. Why choosing Engineered WRC increases structural performance and longevity
4. How engineered WRC promotes strength and sustainability, durability, and environmental sensitivity

STN #4

## **INCORPORATING TIMBER FRAMING INTO YOUR COMMERCIAL OR RESIDENTIAL PROJECT**

**Presenters: Dave Petrina, Kettle River Timber Works**

This seminar will discuss wood joinery connections and where and when steel is necessary. In this seminar, you will learn:

1. The difference between hybrid and full-frame construction
2. How to specify timbers – grade, species, finishes and joinery
3. How much timber frame will cost

STN #5

## **BC'S WOOD WINDOW AND DOOR INDUSTRY – CHALLENGES AND EVOLUTION**

**Presenters: Darwin Ortis, Westeck Windows**

This seminar will present the challenges BC's wood window and door industry are facing and how they are being overcome. In this seminar, you will learn:

1. The glass performance criteria for BC building
2. The Vancouver Building codes that were introduced and how the industry is dealing with them
3. How wood windows and doors can be designed and finished to stand up to BC's climate challenges
4. The many BC manufactured wood window and door options available today

STN #6

## **MODULAR SYSTEMS IN TIMBER**

**Presenters: Lucas Epp, StructureCraft Builders Inc.**

This seminar will present a broad range of modular and panelized timber products, their advantages, and use cases in modern timber construction. In this seminar, you will learn:

1. The benefits of constructing with prefabricated timber
2. The different types of mass timber products and prefabricated panels, including CLT, NLT, Stressed Skin, and Timber-Concrete Composites
3. Where and when each product is most suitable
4. See efficient design applications for each product

STN #7

# Saturday, September 12

<b>8:00-9:00am</b>	Breakfast – Whistler Conference Centre Foyer
<b>9:00am-12:00pm</b>	12 <sup>th</sup> Annual GBM & Networking Tradeshow
<b>11:30am-1:00pm</b>	Lunch & Learn: What Specifiers Need To Know About Selecting Quality Cedar Shakes & Shingles
<b>1:00pm- 3:00pm</b>	Shake & Shingle Craftsmen Packing Contest Event

## SEMINAR INFORMATION

### **Lunch & Learn Seminar: What Specifiers Need To Know About Selecting Quality Cedar Shakes And Shingles**

Presenter: Clay Walker, Cedar Quality Auditor, Cedar Shake and Shingle Bureau; & Wayne Rourke, Manager, Shake and Shingle Certification Program, Intertek

Clients look to architects for advice and it is important for Specifiers to give them the correct answers. This seminar will explain how cedar shake and shingle grading and inspections are performed. When Specifiers know how to look for quality, their clients' needs are accurately and promptly met. It will also increase Specifiers' comfort level with cedar shake and shingle specifications by discussing correct grades, product types and the inspection process.

### **Shake & Shingle Craftsmen Packing Contest Event**

You are invited to stay on after the lunch & learn session to enjoy true craftsmen compete in the Cedar Shake and Shingle Bureau's exciting 100th Anniversary Packing Contest event.

This is a major event held in the cedar shake and shingle industry throughout North America and the first time it will be held here. It promises to be a fun and very informative event and will provide insight into the skill of the shake and shingle workers



# PRESENTER INFORMATION



**Keisuke Maeda, Architect, Principal - Universal Innovative Design (UID) Fukuyama-City Hiroshima, Japan**

Keisuke Maeda is a young up and coming Japanese architect based in Hiroshima. He established his firm, Universal Innovative Design (UID) in 2003. Keisuke believes strongly that architecture should stimulate, engage and challenge the viewer. Above all he hopes that those who see his work will enjoy the experience and be left with a lasting impression. The main focus of Maeda's work is custom designs for specific clients.

Keisuke is currently involved with "International Bamboo Architecture Biennale" in Zhejiang on a village revitalization project. This is an architectural event staged every two years, in which architects of international stature are invited to build habitable buildings in a location of cultural and historical importance.

Keisuke has also lectured at a number of facilities including, Hiroshima Institute of Technology University, Fukuyama City University, Kobe Design University and Nagoya Institute of Technology.



**Lubor Trubka, Architect AIBC, FRAIC, Principal - Lubor Trubka Associates Architects**

Lubor has operated Lubor Trubka Associates Architects (LTA) as a local and international practice since 1975 with a specialized focus on large-scale wood and engineered wood structures. His qualifications in both Architecture and Engineering ensure the coordination and integration of creative architecture with the realities of technical construction.

Lubor is an active and enthusiastic advocate of healthy and environmentally friendly construction methods and technologies and is frequently invited as a guest speaker at seminars and symposiums on wood construction. His designs have won many awards nationally and internationally and have been featured in architecture and design journals both in Canada and abroad.



**Simon le Roux, Architect, Senior Project Researcher - Department of Architecture , Aalto University School of Arts, Design and Architecture, Espoo, Finland**

Growing up in South Africa makes a young person aware of powerful political and social changes, sensitive to social inequality and the subjugation of our natural environment. As a student of architecture in Cape Town, Simon felt a responsibility to improve the built environment for future generations. In 1995 Simon moved to Finland, where he continued studies in Architecture and worked as a scenographer for ten years. After 2005 Simon worked in commercial architectural practice. In response to the environmental impacts of large commercial projects, Simon began to work as an environmental assessor for commercial buildings.

Since 2011 Simon has been a Project Researcher in the Chair of Wood Construction, in the Aalto University's Department of Architecture. Research projects in wood construction have focused on energy efficient residential buildings in cold climates with timber prefabrication, energy retrofits for 1970's housing, lean construction in the timber industry and new technologies and housing typologies. At Aalto University Simon teaches sustainable building design and lectures undergraduate students in architectural best practice to understand multidisciplinary sustainability principles.



**Tom S Chung, AIA, LEED BD+C, NCARB, Principal - Leers Weinzapfel Associates, Boston MA**

Tom Chung is a Principal and design leader at Leers Weinzapfel Associates Architects, recipient of AIA Firm Award in 2007. In his over 20 years with the firm, he has been the primary designer for a number of the firm's most prominent award-winning projects, including the Museum of Medical History and Innovation at Massachusetts General Hospital and most recently the Integrated Design Building at University of Massachusetts Amherst, which will be the first Mass Timber building of its scale in the Northeast United States.

Born in Seoul, Korea and raised in the US, he received his degrees in Architecture at the University of Virginia and the Harvard Graduate School of Design. Within the firm, Tom is a mentor and advisor to the next generation of young designers and as Adjunct Professor, Tom has taught design studios at Northeastern University School of

Architecture and currently teaches a graduate studio at Wentworth Institute of Technology. He is a frequent critic on design reviews and participant on design awards juries.



**Joost Bakker, BA, BArch, Architect AIBC, AAA, OAA, SAA, FRAIC, RCA, Principal, DIALOG**

A principal in the DIALOG Vancouver studio, Joost is focused on innovative urban design, mixed-use, institutional and cultural projects both at home and abroad. His passion for the public realm has always inspired the creation of meaningful and memorable public places, such as the internationally recognized Granville Island, the Governor General award-winning Richmond City Hall, and the new student union building at UBC - The Nest. Joost contributes to the public life of his own community and is past-president of the Vancouver Heritage Foundation, the Contemporary Art Gallery, and is currently on the board of the City of Vancouver Public Art Committee. Joost is the coauthor of the internationally-recognized redevelopment of Granville Island in Vancouver and is currently working on The Banks, a new mixed-use development in the Riversdale neighbourhood of Saskatoon





**Robert Malczyk, MSc, P.Eng. Struct.Eng. MStructE, MBA, Principal - Equilibrium Consulting, Vancouver, BC**

Robert belongs to a rare breed of university-trained, specialized timber engineers. Following graduation with a Master's degree from Warsaw Technical University, Robert set his eyes on Canada, for an opportunity to study at UBC under the world renowned professor and practicing engineer Borg Madsen, inventor of the now widely used timber rivet connection system.

In 1997, Robert co-founded Equilibrium Consulting Inc. Through his career, Robert has worked on over 600 projects, several of which have received awards, including the Hooded Merganser Restaurant in Penticton with Nick Bevanda Architect and the Art Gallery of Ontario Galleria Italia with architect Frank Gehry, one of the most complex timber structures ever built.

Robert is a long-standing member of the O86 "Engineering Design in Wood" code committee, and a member of the recently formed CLT code committee. Robert is regularly invited to lecture on the subject of timber engineering at national and international symposiums and conferences. Robert is committed to sustainability and energy performance, and was involved in the design of the first "Passivhaus" projects in Canada.



**Thomas Tannert, PhD, PEng, Associate Chair Wood Building Design and Construction, Assistant Professor, Wood Science and Civil Engineering, The University of British Columbia**

Thomas Tannert is Associate Chair in Wood Building Design and Construction at the University of British Columbia in Vancouver, where he holds a joint appointment in the Departments of Civil Engineering and Wood Science. Dr. Tannert received degrees in Civil Engineering, Wood Science and Timber Engineering from Germany, Chile and Canada, and subsequently worked in multi-disciplinary teams in Switzerland and Germany, the latter as a Project Manager and Lecturer at the Bern University of Applied Sciences. Dr. Tannert's current work focuses on the development of design guidance for timber joints and structures and he teaches a suite of three timber design courses at UBC.



**Clay Walker, Cedar Quality Auditor, Cedar Shake and Shingle Bureau**

Clay Walker began his career in the forest industry in 1979 working on mill clean up, building pallets and misc. mill jobs for Waldun Forest Products Partnership until he graduated from high school.

Clay continued working for Waldun Forest Products Partnership until 1995. In 1995, Waldun Forest Products Partnership started a sawmill, Twin Rivers Cedar Products. Clay moved to this branch of the company and was eventually promoted to Shift Supervisor. He worked there until 2009.

After a brief hiatus from the industry, Clay was hired as the Cedar Quality Auditor at the Cedar Shake & Shingle Bureau in March, 2011. With his past experience in the forest industry he was a great candidate to audit and inspect product in Canada, as well as in the United States.

He is professional and diligent in his inspection at the mills he visits, therefore the quality of the product coming out of these mills is very high.



**Wayne Rourke, Manager, Shake and Shingle Certification Program, Intertek**

Wayne started in the forest industry in 1967, working briefly as a logger before entering the shake and shingle industry where he began by splitting shakes in the bush. In December of 1968 he got his first job packing shingles and has been in the Shake and Shingle industry ever since. In 1973, Wayne started sawing shingles and worked primarily as a shingle sawyer and packer in several mills in the Fraser Valley.

In 1994 Wayne became a shake and shingle inspector until 1997 inspecting mills throughout BC. Cutbacks forced him to return to the mills as a reman packer until 2004 when he resumed his role as a shake and shingle inspector responsible for mills in the Lower Mainland of B.C.

In 2011, Wayne was promoted to the position of Manager, Shake and Shingle Certification program. Wayne currently oversees a staff of five inspectors and office staff responsible for regular inspections at all Cedar Shake and Shingle Bureau mills in B.C., Washington, Alaska and Idaho.

# SITE TOUR OF SOLANA

## INNOVATIVE DESIGNING OPTIONS FOR LVL MASS TIMBER PANELS INTO MULTI-STOREY RESIDENTIAL CONSTRUCTION

### Overview:

Construction with Engineered Mass Timber is currently the hot topic in multi-storey wood construction. Designed by Brent Murdock, AIBC, Solana, Whistler is a 19 unit high-end apartment project that has been designed to utilize Mass Timber products in a variety of unique applications. Still under construction, this project is also designed to exceed BUILT GREEN® Platinum Certification through a number of innovative design and construction methods and systems.

Although it has been a staple in construction for years, due to its excellent strength performance, standard Laminated Veneer Lumber (LVL) has only recently been transformed into a mass timber product of extraordinary aesthetics, strength, and versatility. This results in endless design opportunities for the architect including aesthetically appealing wide spans and one or two sided exposed applications including walls, floors, and ceilings; all of which have been incorporated into the Solana design.

This seminar and tour will offer an overview of currently available made in BC engineered wood products. It will also demonstrate how one in particular, LVL, has been integrated with conventional light-frame construction in various applications within this high-end project

As a result of this course and tour, participants will learn about:

- Engineered wood products, in particular, innovative LVL-based mass timber
- Examples of multiple designs applications for LVL mass timber
- Fire Code qualities, installation, and integration of mass timbers in multi-storey residential construction
- Designing options in multi-family projects for comfort and durability without adding mechanical systems

### Presenters:

- Kim-Jana Henze, Brisco Manufacturing Ltd.
- Ed Lim, Structural Engineer – P.Eng, United Building Systems
- Rod Nadeau, Builder – Managing Partner, Innovation Building Group

**Duration: 1 hour**

