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British Columbia News

Mass timber investments to change face of B.C. construction

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NEW TRANSLATIONS

Victoria - The Province is providing funding for 12 mass timber demonstration and research projects and has established a new advisory council to accelerate the adoption of mass timber building systems, as part of the Province's economic recovery.

"As we work to put the pandemic behind us, we will continue making strategic investments that position B.C. to come back stronger on the other side," said Premier John Horgan. "Mass timber is good for forestry-dependent communities, workers and the environment – because it adds value rather than just volume. That's why growing the sector is key to building a strong and sustainable economic recovery that reaches everyone."

The \$4.2-million investment in mass timber demonstration projects and research will help urban planners and developers adopt mass timber building systems by supporting the incremental or first-time costs of design development, research, permitting and construction activities. The projects will help advance CleanBC goals by sourcing from sustainably managed forests that have a lower carbon footprint.

The Province is also introducing a new mass timber advisory council. The advisory council is a group of experts from urban planning and development, First Nations, forest products industry, environmental non-profits, academia and local governments. The council will provide advice and guidance towards establishing B.C. as a leader in the production and use of mass timber, as well as the creation of a mass timber action plan.

"The face of construction is about to change in British Columbia through our government's investments in mass timber," said Ravi Kahlon, Minister of Jobs, Economic Recovery and Innovation. "By encouraging greater use of mass timber, we are supporting jobs in research, design, engineering, construction and forestry using B.C. expertise and materials."

The demonstration projects reflect a range of different building types and approaches to using mass timber that will highlight the versatility and performance of this building material. These include a firehall with strict post-disaster requirements, an Indigenous health and culture centre and low-cost housing on Vancouver's Downtown Eastside.

The research projects will study mass timber's fire performance, the costs relative to steel and concrete, and carbon benefits. All project innovations and best practices will be broadly shared to promote learning and further advance mass timber use provincewide.

"B.C. is well positioned to be the world leader in sustainable design and construction innovations that can transform our economy and positively support our environment and climate footprint," said Michael Green, architect and mass timber advisory council member. "I believe that mass timber will reshape our skylines with beautiful buildings that respond to the needs of our communities and planet. We are proud of the initiatives of the Province and peers as we move new ideas forward together."

This announcement is part of B.C.'s \$10-billion COVID-19 response, which includes StrongerBC: BC's Economic Recovery Plan to focus on a recovery that is innovative, sustainable and inclusive. It outlines the latest steps the Government of British Columbia is taking to help people, businesses and communities come out of COVID-19 stronger, without leaving people behind.

Forestry Innovation Investment (FII) is delivering the Mass Timber Demonstration Program on behalf of the Province.

Quotes:

George Chow, Minister of State for Trade –

“The Mass Timber Advisory Council brings together some of B.C.’s top thought leaders in their respective fields. This range of perspectives will be important as we work together to build demand for mass timber and establish B.C. as a global leader of mass timber use and production.”

Katrine Conroy, Minister of Forests, Lands, Natural Resource Operations and Rural Development –

“Diversifying our forest sector is a key part of our government’s plan to create and support jobs in every region of the province. Mass timber continues to transform the building industry and with the right strategic supports like this demonstration program and advisory council, we have a unique opportunity to solidify B.C.’s leadership in forest product innovation.”

George Heyman, Minister of Environment and Climate Change Strategy –

“We’re helping communities build better buildings with mass timber to reduce carbon pollution and support good jobs for people in B.C.’s forestry sector through CleanBC. By demonstrating the benefits of mass timber, we’re supporting a cleaner, stronger future with new opportunities in a key sector of our economy while reducing the carbon footprint of our built environment.”

Quick Facts:

- The StrongerBC investment of \$3 million will fund five demonstration projects and four research projects. FII has repurposed \$1.2 million of its budget to support an additional three demonstration projects.
- In 2019, the Province adopted new national building code provisions for 12-storey mass timber construction for interested communities. Twenty communities have opted in, and the City of Vancouver has also adopted similar provisions in its building bylaw.
- The Province has committed that government-funded buildings will be constructed with mass timber to the greatest extent possible. The Royal B.C. Museum’s new collections and research facility in Colwood and the new BCIT and Okanagan College student housing will use mass timber construction.

Learn More:

To learn more about B.C.’s Mass Timber Demonstration Program, visit: <https://www.masstimberbc.ca/> (<https://www.masstimberbc.ca/>)

To learn about other StrongerBC projects, visit: <https://strongerbc.gov.bc.ca> (<https://strongerbc.gov.bc.ca>)

Two backgrounders follow.

Media Relations

Ministry of Jobs, Economic Recovery and Innovation
604 313-0638

Backgrounders

Mass Timber Demonstration Program recipients, project summaries

Updated April 8, 2021

The Mass Timber Demonstration Program has awarded a combined \$4.2 million to 12 B.C.-based developers and research bodies to support the incremental or first-time costs of mass timber design development, permitting and construction activities, and research.

The following are grant recipients and project descriptions:

Happy Harvest Inc. (\$475,000): This 11-storey multi-family residential building will demonstrate the use of mass timber-steel hybrid for affordable rental buildings. The proposed design includes 120 affordable homes as well as a learning space and community theatre. <https://www.naturallywood.com/project/main-and-cordova-mac/> (<https://www.naturallywood.com/project/main-and-cordova-mac/>)

BentallGreenOak (Canada) LP (\$500,000): This 10-storey commercial office use building will demonstrate an innovative use of timber brace framing to withstand the effects of earthquakes in a tall building application. The design includes primarily commercial office space with some ground floor retail and outdoor amenity areas. <https://www.naturallywood.com/project/2150-keith-drive/> (<https://www.naturallywood.com/project/2150-keith-drive/>)

Reliance Properties Ltd. (\$500,000): A six-storey mixed-use commercial building that demonstrates an innovative use of mass timber-steel hybrid design to renovate a historic building. Built on top of an existing two-story historic warehouse, the four-storey mass timber addition will provide more density and new commercial office space for the area. <https://www.naturallywood.com/project/837-beatty-street-rehabilitation-and-addition/> (<https://www.naturallywood.com/project/837-beatty-street-rehabilitation-and-addition/>)

District of Saanich (\$500,000): The redevelopment of Fire Station #2 will demonstrate how mass timber can be used in a “post disaster” building designed to withstand emergencies. The project will replace the present one-storey, 353 square-metre building with a two-storey 2,190 square-metre steel and timber post and beam system that will accommodate a fire training tower and emergency vehicles. <https://www.naturallywood.com/project/district-of-saanich-fire-station-2-redevelopment/> (<https://www.naturallywood.com/project/district-of-saanich-fire-station-2-redevelopment/>)

First Nations Health Authority (\$500,000): This six-storey building will demonstrate institutional use of mass timber supporting health and cultural activities. The design will expose as much mass timber as possible to evoke the plank house tradition of the Coast Salish people; space will be used for First Nations Health Authority employees as well as social spaces for gatherings, cultural activities and education. The building will target Rick Hansen Foundation certification for accessibility. <https://www.naturallywood.com/project/first-nations-health-authority-metro-vancouver-office/> (<https://www.naturallywood.com/project/first-nations-health-authority-metro-vancouver-office/>)

Bellevue Properties Partnership (\$500,000): This eight-storey multi-family residential building will demonstrate innovative use of mass timber-hybrid structural, flooring and balcony systems in tall multi-family housing. Construction will target Passive House certification to meet carbon emission goals. <https://www.naturallywood.com/project/bellevue-and-22nd/> (<https://www.naturallywood.com/project/bellevue-and-22nd/>)

Westbank (\$500,000): This 21-storey rental building will demonstrate mass timber-steel-concrete use in a tall building. The project will demonstrate cost-effective design solutions using materials for their highest value. Learning from the project will be shared as open source. The developers are aiming for the City of Vancouver’s Zero Emissions Building Plan standard. <https://www.naturallywood.com/project/prototype/> (<https://www.naturallywood.com/project/prototype/>)

Faction Projects (\$137,000): This four-storey hybrid mixed-use building will demonstrate the feasibility of local trades, rather than factories, to produce mass timber panels. Local mass timber panel production using available suppliers and trades will create local jobs and reduce supply-stream risks. This project will also be used to

educate the insurance and lending industry on mass timber to reduce premiums associated with mass timber buildings. Developers will pursue Step Three of the BC Energy Step Code, the highest level for buildings of this type in the Okanagan. <https://www.naturallywood.com/project/the-exchange/>
(<https://www.naturallywood.com/project/the-exchange/>)

Canadian Wood Council, GHL Consultants, CHM Fire Consultants (\$300,000): Mass timber demonstration fire tests will be used to educate key stakeholders about the performance of mass timber construction. Test data will support future code change proposals and new fire suppression systems. Cost shared with Natural Resources Canada, National Research Canada and other provincial governments, lessons learned will be shared with other jurisdictions in Canada.

Fast + Epp, GHL Consultants (\$92,000): This research project will assess the transferability of international tall wood building codes to B.C. and Canada to advance the next generation use of wood in buildings in B.C. and Canada.

Morrison Hershfield (\$105,000): The proponents will develop costing data on mass timber construction for wide use by developers, builders and other decision-makers. This will be especially pertinent as the B.C. Energy Step Code becomes more widely used to increase energy efficiency and meet CleanBC goals.

Athena Sustainable Materials Institute (\$70,000): Lifecycle assessment research will demonstrate the carbon benefits of mass timber use and encourage wider adoption by building designers, policymakers and other decision-makers.

Mass Timber Advisory Council

The Mass Timber Advisory Council comprises 16 members representing a wide range of sectors and interests, including urban planning and development, First Nations, forest products industry, environmental non-profits, academia and government.

George Chow, Minister of State for Trade, will serve as chair of the Mass Timber Advisory Council.

Mass Timber Advisory Council members are:

Dan Battistella is president of the Interior Lumber Manufacturers' Association (ILMA), which represents small to mid-sized independent, family-owned manufacturers of specialty forest products across B.C. Before joining the ILMA in 2015, Battistella held a variety of roles, from forest inventory to forest policy with large multinational and small independent companies in his 35 years in the industry.

Andrew Harmsworth is a principal of GHL Consultants Ltd. and the fire engineer responsible for Tallwood House at Brock Commons. He is currently working on more than 15 new tall wood buildings from eight to 30 storeys and is also involved in fire research related to mass timber construction. Harmsworth is a member of the Standing Committee on Fire Protection for Codes Canada (National Research Council of Canada).

Lynn Embury-Williams is executive director of the Canadian Wood Council and Wood WORKS! BC, which promotes and enables wood use in B.C.'s construction market. She previously worked for Canfor in market and product development. From 2009 to 2015, Embury-Williams chaired the NEWBuildS Forestry Network Program, which aims to advance the use of wood-based products in mid-rise, taller and non-residential construction. She is a registered professional forester in B.C. and has a master of business administration from the University of Western Ontario.

Paul Fast is founder of Fast + Epp, a leader in architecturally exposed structures and unconventional use of materials, including hybrids of timber, concrete and steel. For over three decades, Fast has been the design lead for many of the firm's most significant projects, including the Richmond Olympic Oval roof, Grandview Heights Aquatic Centre and the 18-storey Tallwood House at the University of British Columbia (UBC).

Karla Fraser is director of construction services at Hive Projects Inc. and director of construction at the Cape Group. She has 27 years' experience in the construction industry. In 2018, Fraser won the Wood Works Technologist award for her achievements working on UBC's Brock Commons, an 18-storey hybrid mass timber building. She holds a civil engineering degree from the Southern Alberta Institute of Technology.

Brian Frenkel has worked in forest and environmental consulting for over 35 years and was a business owner for 29 years. Frenkel has served on the District of Vanderhoof Council since 1995 and on the Union of B.C. Municipalities (UBCM) executive since 2014, where he currently serves as UBCM president.

Michael Green is an award-winning architect known for his advocacy in promoting the use of wood and new technologies in the built environment. Green founded MGA to create sustainable change in building through innovation in construction sciences and design. He is a fellow of the Royal Architectural Institute of Canada (RAIC) and has been honoured with two RAIC Innovation Awards and four Governor General's medals.

Claire Huxtable is part of ERA Forest Products Research's equity research team, focused on North American paper and forest products producers. She began her career with Western Forest Products and later worked in private equity with the Hancock Timber Resource Group. She holds an undergraduate degree in forestry from UBC and Laval University, and a master of business administration from UBC. She is a registered professional forester with the Association of British Columbia Forest Professionals and a CFA charterholder.

Anne McMullin is president and CEO of the Urban Development Institute, an industry association of B.C. residential, commercial and industrial builders. McMullin has held multiple leadership and communications roles, including president and general manager of the North Vancouver Chamber of Commerce and director of communications at the Vancouver Fraser Port Authority. Anne studied political science at UBC and journalism at the British Columbia Institute of Technology.

Derek Newby is a principal in the Vancouver studio of Diamond Schmitt Architects. He has served as a member of the advisory design panels in the City of New Westminster, the City of Surrey, and presently, the City of Port Moody. Newby is a licensed architect and member of the Architectural Institute of British Columbia, a LEED accredited professional and a certified Passive House designer.

Robert Phillips is a member of the Northern Secwepemc te Qelmuw (Shuswap) of the C̓an̓im Lake First Nation. He was elected in June 2019 for a third consecutive three-year term on the First Nations Summit political executive. Phillips was previously elected to three two-year terms as a commissioner of the British Columbia Treaty Commission. He also previously served as chief negotiator and self-government director at the Northern Shuswap Tribal Council. Phillips holds a bachelor of arts from the University College of the Fraser Valley.

Tim Ryce is a professional engineer and chief building official for the City of North Vancouver. Previously, Ryce worked as the green building engineer for the City of Vancouver. He has developed and implemented construction regulations relating to green building, energy efficiency and accessibility, and acted as a peer reviewer for FPIInnovations' technical guide for the design and construction of tall wood buildings in Canada.

Karen Tam Wu is the regional director of British Columbia at the Pembina Institute and a member of the B.C. government's Climate Solutions Council. Previously, she worked with First Nations, communities, government and industry on conservation initiatives in B.C. A registered professional forester, Tam Wu has worked with forest companies worldwide for over a decade developing and implementing sustainable forest management systems.

Terry Teegee is serving his second term as elected Regional Chief of the British Columbia Assembly of First Nations. As a former registered professional forester, Teegee previously held forestry and natural resources roles with the Carrier Sekani Tribal Council and Takla Nation. He holds a bachelor of science in natural resources management and a natural resources technology diploma.

Guido Wimmers joined the University of Northern British Columbia (UNBC) in 2014 as chair for the Integrated Wood Design Program. Before coming to UNBC, he worked in multi-disciplinary teams in Austria, Germany and Italy in research and engineering, as well as architectural offices. Wimmers played a key role in the implementation of the International Passive House Standard and of mass timber in B.C. and across Canada. He received his doctoral degree in engineering sciences and a master's degree in architectural engineering from the Leopold Franzens University in Innsbruck, Austria.

Susan Yurkovich is president and CEO of the BC Council of Forest Industries. She also serves as president of the BC Lumber Trade Council, representing the interests of the B.C. forest industry on trade matters, including the Canada-U.S. Softwood Lumber Agreement. Yurkovich has worked in the natural resources sector for more than 25 years. She serves as a director of Centerra Gold and FortisBC, governor of the Business Council of BC, director of Vancouver College, and a member of the Faculty Advisory Board at UBC's Sauder School of Business.

Translations

- 4-7-21_MassTimber_French.pdf (https://bcgovnews.azureedge.net/translations/releases/2021JERI0025-000646/4-7-21_MassTimber_French.pdf)
- 4-7-21_mass_timber_Chinese(traditional).pdf ([https://bcgovnews.azureedge.net/translations/releases/2021JERI0025-000646/4-7-21_mass_timber_Chinese\(traditional\).pdf](https://bcgovnews.azureedge.net/translations/releases/2021JERI0025-000646/4-7-21_mass_timber_Chinese(traditional).pdf))
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