

Report to Council



Date: August 26, 2019

To: Council

From: City Manager

Subject: Early Adoption Initiative – Tall wood Mass Timber Construction

Department: Development Services

Recommendation:

THAT Council receives for information, the report from the Development Services Department dated August 26, 2019, regarding participation in the Early Adoption Initiative for Mass Timber Construction;

AND THAT Council direct staff to submit an Expression of Interest to the Office of Housing and Construction Standards within the Ministry of Municipal Affairs and Housing, for the Early Adoption Initiative for Mass Timber Construction.

Purpose:

To endorse City's participation in the Early Adoption Initiative of encapsulated mass timber buildings from 7 to 12 storeys in height in Kelowna

Background:

On March 13, 2019 the Provincial Government announced they would be proactively adopting building code changes that allow the safe construction of taller wood buildings, which are currently allowed up to six storeys.

The federal 2020 National Building Code is expected to allow mass timber construction up to 12 storeys and will be reflected in the next edition of the BC Building Code. The technology has been reviewed by the National Building Code committees, as well as by experts such as fire safety specialists, structural engineers, architects, scientists and builders.

Mass timber building is one where the primary load-bearing structure is made of either solid or engineered wood. Encapsulated mass timber is where the mass timber components are surrounded by fire-resistant materials like drywall. Mass timber buildings can be one-fifth the weight of comparable concrete buildings, while still meeting performance standards for safety, structural resilience and fire protection.

This Provincial initiative also has positive economic implications, as it encourages innovation through value-added wood products, helping to grow local and global markets, while promoting climate-friendly construction and supporting B. C's forest-dependent communities. Other benefits as a result of this initiative include construction cost-savings and ease of assembly for the

development industry. For example, a crew of nine constructed the 18 storey tall wood building “Brock Commons” at UBC with four months ahead of schedule – 70 days after prefabricated components arrived onsite (On-Site, Canada’s Construction Magazine, June 2018).

Discussion:

Eligible local governments throughout B.C. are invited by the Office of Housing and Construction Standards to become early adopters of mass-timber technology for construction of buildings up to 12 storeys, up from the current allowance of six storeys.

Any local government currently regulated under the BC Building Code is eligible provided they meet the stipulated criteria as follows:

- There is City Council support for the initiative;
- The Planning, Building and Fire departments are supportive of participating in the process;
- The lead building official holds a Level 3 Certification from the Building Officials’ Association of BC; and
- The jurisdiction’s land-use bylaws support buildings greater than six storey in height.

The following sub-sections will review how the City of Kelowna meets the Province’s eligibility criteria, except for Council’s support, as this is the overall purpose of this report.

The City of Kelowna’s Planning, Building and Fire Departments are supportive of participating in this innovative and progressive opportunity. Both the Building Department and Fire Department are supportive of participating in the process, as it will allow both departments to learn and become more educated about the upcoming building code changes in advance of the provincial adoption of the 2020 National Building Code.

The proposed Provincial initiative is feasible, as the City of Kelowna’s Building Department currently employs 11, Level 3 certified Building Officials as Building Inspectors and Permit Coordinators which is the highest number of competency level per capita throughout BC. With regards to the building design and construction for these projects, the Mass Timber Strategy refers to the 2018 B.C. Building Code – Division B: Acceptable Solutions Notes to Part 3 – Fire Protection, Occupant Safety and Accessibility. This requires the building design to be in full compliance with the building code articles in Division B. Where a Ministerial Order has been granted, defined projects will be permitted exceptions to some current code requirements including, but not limited to, building height. These exceptions and revised code requirements will be provided to the local authorities who express interest in this initiative by the Ministry of Municipal Affairs and Housing.

Conclusion:

The Province of British Columbia, through its Ministry of Municipal Affairs and Housing, is seeking early adopters for mass timber construction in advance of changes to the BC Building Code. The City of Kelowna is eligible and desires to participate in this request. It is therefore recommended that Council endorse the City’s participation in the Early Adoption Initiative for Mass Timber Construction.

Internal Circulation:

Fire Department, Community Planning, Policy & Planning and Building & Permitting

Considerations applicable to this report:

Legal/Statutory Authority:

Section 3 of the *Building Act*, SBC 2015, c.2, regulate the construction of encapsulated mass timber buildings from 7 to 12 storeys in height.

Existing Policy:

The zoning bylaw would currently allow the potential for 12 storey wood framed buildings without variances on select parcels in the downtown, midtown, and capri-landmark urban centres.

Policy 5.22.11 - Housing Mix. Support a greater mix of housing unit size, form and tenure in new multi-unit residential and mixed-use developments.

Policy 7.3.1 - Housing Mix. Deliver services and infrastructure and create financial structures that will support the aim of having 57% of new housing units in the form of townhouses and apartments.

This policy will also support the direction of Imagine Kelowna to grow vibrant urban centers and limit sprawl.

Financial/Budgetary Considerations:

As the Province is only seeking expressions of interest currently, there are no anticipated financial impacts to the City.

Considerations not applicable to this report:

Legal/Statutory Procedural Requirements:

External Agency/Public Comments:

Communications Comments:

Submitted by:

Mo Bayat,
Development Services Department Director

Approved for inclusion:



Ryan Smith, Divisional Director, Planning & Development

cc: Fire Chief
Deputy Fire Chief
Planning Manager
Sustainability Coordinator
Building & Permitting Manager