



## **Committee of the Whole Report**

### **For the Meeting of September 5, 2019**

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**To:** Committee of the Whole **Date:** July 11, 2019

**From:** Andrea Hudson, Acting Director, Sustainable Planning and Community Development

**Subject:** Early Adoption Initiative – Mass Timber Construction

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### **RECOMMENDATION**

That Council:

1. Support participation in the Province of British Columbia's Tall Wood Early Adoption Initiative to authorize the construction of encapsulated mass timber buildings that are seven to twelve storeys in height; and
2. Direct staff to request the Province of British Columbia to include the City of Victoria as a participating local authority in the regulation for the Tall Wood Early Adoption Initiative.

### **EXECUTIVE SUMMARY**

The BC Building Code has allowed for six storey wood framed buildings since the introduction of the 2006 edition. The Province is now proposing to allow for an increased height of combustible construction buildings to include up to twelve storeys with encapsulated mass timber construction. The proposal follows direction set through the National Building Code which will include regulations for twelve storey mass timber construction in its 2020 version. The Province announced its intention in March of 2019 to bring in a similar regulation in the next version of the BC Building Code. The intent is to advance the initiative before the National Building Code and the Province has invited eligible local governments in BC to become early adopters of twelve storey mass-timber technology. To be eligible as an early adopter, a municipality must have

1. The support of Council by way of resolution supporting the initiative;
2. Organizational alignment to support the initiative from Fire, Building and Planning divisions;
3. A Building Official with a Level 3 Certification from the Building Officials Association of BC;
4. Land use bylaws that support buildings greater than six storeys in height; and
5. Staff to participate in provincial working groups to provide feedback and other information on mass timber construction projects to the Building and Safety Standards Branch.

With Council support, the City would meet all early adopter criteria.

Early adopter municipalities will be permitted to use the 2020 National Building Code provisions to regulate construction through a jurisdiction-specific regulation enacted by the Province pursuant to Section 3 of the Building Act. The Province has provided a sample resolution which is included as Appendix A.

## **PURPOSE**

The purpose of this report is to provide information and recommendations to Council on a process for the City of Victoria to be considered as an early adopter of the Mass Timber Construction initiative. The objective is to accommodate mass timber construction of buildings up to 12 storeys in Victoria.

## **BACKGROUND**

In spring of 2019, the Building and Safety Branch (BSSB) approached select municipalities throughout BC in search of participants in the Early Implementation Initiative for Mass Timber Construction. This early adoption initiative will allow participating local governments to enable innovative tall wood buildings in their communities two to three years before adoption in the BC Building Code (BCBC). The BCBC is based on the National Building Code (NBC), and the 2020 National Building Code is targeted to contain provisions for the construction of encapsulated mass timber wood buildings up to 12 storeys in height. If this is supported, it would result in a jurisdictional specific regulation (JSR) that would bridge the period ending upon adoption of the next BCBC which would include provisions for encapsulated mass timber wood buildings up to 12 storeys in height.

The request for participation is included as Appendix B.

## **ISSUES & ANALYSIS**

### Mass Timber Construction

The load-bearing structure of mass timber buildings is made of solid or engineered wood. The term encapsulated refers to the mass timber components being surrounded by fire-resistant materials like drywall. Mass timber technology allows for faster construction as sections of a building can be manufactured in a plant and then later assembled on site. They can be one-fifth less than the weight of comparable concrete buildings, while still meeting performance standards for safety, structural resilience and fire protection.

Studies have shown that there are environmental benefits of using mass timber. The Province has estimated that the carbon benefit from constructing an 18-storey wood frame building on the University of British Columbia campus was equivalent to taking 511 cars off the road for one year. Other benefits include reduced traffic to a construction site, reduced waste and reduced noise during construction.

Although staff would participate in any Provincial discussions related to early adoption, supporting this initiative does not enable the City to adopt different regulations than what will be established by the Province in the BC Building Code. Information regarding the Province's initiative is attached as Appendix C.

## OPTIONS & IMPACTS

*Accessibility Impact Statement*  
Not applicable

*2019 – 2022 Strategic Plan*

The initiative supports Strategic Objective #6: Climate Leadership and Environmental Stewardship.

*Impacts to Financial Plan*  
None

*Official Community Plan Consistency Statement*  
Not Applicable

## CONCLUSIONS

The City of Victoria's participation in the Province's Tall Wood Early Adoption Initiative would allow the local construction market early access to develop leadership experience and to take advantage of the benefits of encapsulated mass timber construction for buildings up to twelve storeys tall in advance of coming changes to the National Building and BC Building codes.

## ALTERNATE MOTIONS

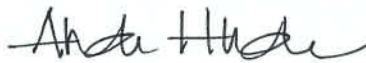
1. That the City not participate in the Province of British Columbia's Tall Wood Early Adoption Initiative.

This alternate motion is not recommended due to the impact to proponents of active DP applications proposing this type of construction as the projects would be delayed until the next BC Building code cycle.

Respectfully submitted,



Ryan Morhart  
Manager, Permits & Inspections



Andrea Hudson, Acting Director  
Sustainable Planning and Community Dev.



Paul Bruce  
Fire Chief

Report accepted and recommended by the City Manager:

Date:

  
Aug 28, 2019

## List of Attachments

Appendix A: Sample Certified Resolution Tall Wood Early Adoption Initiative Province of British Columbia

Appendix B: Early Adoption Initiative - Mass Timber Construction – Participation Request

Appendix C: Presentation - Early Adoption Initiative – Tall Wood Mass Timber Construction