

NO: R075

COUNCIL DATE: April 15, 2019

REGULAR COUNCIL

TO: **Mayor & Council** DATE: **April 11, 2019**

FROM: **General Manager, Planning & Development
Fire Chief** FILE: **0760-01**

SUBJECT: **Early Adoption Initiative - Mass Timber Construction**

RECOMMENDATION

The Planning & Development Department and the Surrey Fire Services recommended that Council:

1. Receive this report for information;
2. Endorse the City's participation in the Early Adoption Initiative for Mass Timber Construction, and
3. Authorize staff to forward a copy of this report to the Ministry of Municipal Affairs and Housing along with supporting documents as required to participate in the Mass Timber Construction Initiative.

INTENT

The purpose of this report is to provide background information to Council on the process staff is proposing to follow for Surrey to be considered as an early adopter of the Mass Timber Construction initiative with the goal of facilitating mass timber construction of buildings up to 12 storeys in Surrey.

BACKGROUND

Over the past few years, Surrey staff from the Planning & Development Department, including Area Planning and Building Divisions, and staff from the Surrey Fire Services ("SFS") participated in a number of meetings and workshops where tall mass timber construction projects were reviewed and evaluated.

Staff has also received many inquiries from proponents contemplating delivering such projects in Surrey. In response, staff outlined the process to be followed, as the BC Building code did not allow for such structures. At the time, special regulations from the Province would be required in order to have a mass timber construction site designated an "alternate solution" which would have allowed a project to move forward despite not concurring with the current BC Building code.

SFS staff have participated in case studies and were part reviewers of tall mass timber construction projects. For example, SFS staff was asked by the Provincial Government to review

preliminary design documents and participate as a member of the Technical Advisory Panel in discussions to assist in assuring the unconventional design challenges were addressed appropriately, particularly in relation to fire and structural safety issues for the 18-storey Brock Commons (2015) residential construction at the University of British Columbia and for the 12-storey residential Corvette Landing building in Esquimalt (2018).

As well, in 2017, SFS staff participated in the Development of a Tall Wood Reference Guide for the Ontario Ministry of Natural Resources and Forestry. The purpose of the guide was to inform applicants on how tall wood buildings could be designed as alternative solutions in a way that would achieve the level of performance required by Ontario's Building Code.

DISCUSSION

With the Province of British Columbia now moving forward with early adoption of mass timber construction ahead of the changes in the National and BC Building Code, staff are very interested in being included as participants as it is anticipated this type of construction would be appropriate in different areas of the City.

The Province, as part of the early adoption initiative process, also includes specific requirements of the municipality (see Appendix "I"), including Council support in the form of a resolution supporting participation in this initiative.

Should Council support the City of Surrey to be one of the early adopters of the mass timber construction initiative, staff will finalize the requirements as outlined above and will forward the completed application to the Ministry of Municipal Affairs and Housing to commence the process. This will ensure that the local approval process for mass timber construction projects in Surrey is streamlined in accordance with the Provincial regulation. Currently, this is possible, but it is a cumbersome process. The Province's approach is to make it easier for the industry and local governments to deliver this type of building.

SUSTAINABILITY CONSIDERATIONS

The proposed approach to implementing mass timber construction supports the objectives of the City's Sustainability Charter 2.0. In particular, this work relates to Sustainability Chart 2.0 themes of Built Environments & Neighborhoods and Economic Prosperity & Livelihoods. Specifically, this proposed approach supports the following Desired Outcomes ("DO") and Strategic Directions ("SD"):

- Neighbourhoods and Urban Design DO₉: All aspects of planning, design and construction include climate change impacts, greenhouse gas (GHG) mitigation, adaptation, and resiliency strategies;
- Neighbourhoods and Urban Design DO₁₁: Surrey is at the forefront of sustainable and restorative building design and technology;
- Neighbourhoods and Urban Design DO₁₃: Buildings are healthy and energy and resource efficient;
- Neighbourhoods and Urban Design SD₁₄: Promote and strengthen high quality design and healthier, more energy efficient buildings in public and private development, and

- Innovation DO13: Surrey businesses demonstrate environmental stewardship in their products, services and practices.

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 Surrey is wanting 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, and
- Authorize staff to forward a copy of this report to the Ministry of Municipal Affairs and Housing along with supporting documents as required to participate in the Mass Timber Construction Initiative.

Original signed by
Jean Lamontagne
General Manager, Planning & Development

Original signed by
Len Garis
Fire Chief

JLL/jg/ar

Appendix "I" – Early Adoption Initiative – Mass Timber Construction – Participation Request

Early Adoption Initiative - Mass Timber Construction – Participation Request

APPENDIX I

Request for Participation in a Jurisdiction Specific Regulation under the *Building Act*

Eligibility for Participation

1. **Political Support:** A council or board resolution supporting participation in the initiative is required.
2. **Organizational Alignment:** This can be documented in the form of a letter from the Chief Administrative Officer stating that the Fire, Building and Planning Departments are comfortable with participating in the initiative OR a copy of the staff report regarding the initiative that went to Council/Board that included sign-off by the Fire, Building and Planning Departments can be supplied.
3. **Organizational Capacity:** A building official with a Level 3 certification from the Building Officials Association of B.C. who is either a staff member or contracted for the purposes of this initiative.
4. **Land Use Bylaws:** The community's zoning bylaw or official community plan must support buildings greater than six storeys in height.
5. **Local Government Feedback:** It is expected that local government staff will participate in provincial working groups or provide feedback and other information on their encapsulated mass timber construction projects to the Building and Safety Standards Branch.

This checklist serves as confirmation that the requirements listed above have been met¹.

- Copy of a Council Resolution in support of participation
- Fire, Building & Planning Departments concur with participation in the initiative.
- Land use bylaws support buildings greater than six storeys in height.
- BOABC Level 3 Certified Building Official

Contact person email: Click or tap here to enter text.

Contact person phone number: Click or tap here to enter text.

Name of Chief Administrative Officer: Click here to enter text.

Signature: _____ Date: Click here to enter a date.

¹ This document allows for electronic form filling for checkboxes and text.

APPENDIX II

Details on Encapsulated Mass Timber Construction in the Draft National Building Code (2020)

Proposed changes to the National Codes were circulated for public comment between November 7, 2018 and January 4, 2019. After the Canadian Commission on Building and Fire Codes (CCBFC) reviews the submissions, it will either withdraw a proposed change; recommend that it be reviewed further for possible re-submission; or recommend it be approved by the CCBFC, with or without modification. If a change is approved by the CCBFC, it will be published in the 2020 National Building Code.

British Columbia's jurisdiction specific regulation will be modeled on the proposed changes to the National Codes.

This is a link to the proposed changes to the National Codes:

https://www.nrc-cnrc.gc.ca/obj/doc/solutions-solutions/advisory-consultatifs/codes_centre-centre_codes/public_review-examen_public/public_review_PDF-examen_public_PDF/2018/NRC_PublicReview_2018_NBC_NFC_NPC_combined.2018-11-29.pdf

The proposed changes related to Encapsulated Mass Timber Construction can be found on the following pages:

- Proposed Change 1024 (pages 21-44)
- Proposed change 1033 (pages 45-49)
- Proposed change 1036 (pages 74-80)
- Proposed change 1322 (pages 88-91)
- Proposed change 1294 (pages 112-115)
- Proposed change 1211 (pages 782-787)
- Proposed change 1198 (pages 788-789)
- Canadian Commission on Fire Codes overview (pages 943-946)

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