



REFERRAL REPORT

Report Date: December 20, 2023
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VanRIMS No.: 08-2000-20
Meeting Date: February 6, 2024

TO: Vancouver City Council
FROM: General Manager of Planning, Urban Design and Sustainability
SUBJECT: Tools and Incentives to Encourage Mass Timber Construction

RECOMMENDATION TO REFER

THAT the General Manager of Planning, Urban Design and Sustainability be instructed to bring forward the application as described below and that the application be referred to Public Hearing together with the recommendations set out below;

FURTHER THAT the Director of Legal Services be instructed to prepare the necessary Zoning and Development By-law amendments, generally in accordance with the recommendations set out below, for consideration at the Public Hearing.

RECOMMENDATION FOR PUBLIC HEARING

- A. THAT Council approve, in principle, the application to amend the Zoning and Development By-law to allow for increased height of a mass timber building generally as presented in Appendix A;

FURTHER THAT the Director of Legal Services be instructed to bring forward for enactment amendments to the Zoning and Development by-law, generally as presented in Appendix A.

- B. THAT, at the time of enactment of the Zoning and Development By-law amendments, the General Manager of Planning, Urban Design and Sustainability be instructed to bring forward for approval by Council the Mass Timber Policy for Rezonings, generally as presented in Appendix B.

Purpose and Executive Summary

This report proposes three measures to accelerate mass timber construction in new buildings taller than six storeys. Building on previous work to remove barriers to mass timber, the proposed tools and incentives in this report would allow the Director of Planning to recommend increases in height and density for mass timber in rezoning applications, to provide extra height

in district schedule areas, and to simplify the development process. These tools are proposed as a pilot program to be reviewed after two years.

Council Authority/Previous Decisions

In April 2019, Council approved six Big Moves to address the Climate Emergency. Big Move 5 set a target of a 40% reduction in embodied emissions associated with construction materials and designs by 2030.

In November 2020, Council approved Zoning and Development By-law amendments to allow variances in height, yards, setbacks, site coverage, building depth, and external design to provide more flexibility for mass timber projects.

In June 2022, as part of the Broadway Plan, Council directed staff to report back on additional incentives to advance mass timber in construction.

City Manager's Comments

The City Manager concurs with the foregoing recommendations.

Context and Background

Mass timber is made of smaller pieces of lumber laminated together to form engineered structural components for floors, walls, columns, and beams. Engineered to meet high standards for structural performance, mass timber is also significantly more fire resistant than light wood elements. Mass timber is a naturally low-carbon material with good insulating properties, and is prefabricated off-site in large, modular pieces.

There are many benefits to enabling more mass timber construction in Vancouver. Mass timber is an integral part of our strategy to lower embodied carbon as this form of construction can reduce the embodied carbon pollution of construction by 25-45% over typical concrete construction. As well, mass timber is fabricated off-site, so it has the potential to significantly reduce housing construction costs and can help mitigate the skilled construction labour shortage. Mass timber construction also creates local and regional jobs, is energy efficient, contributes to seismic resilience, and is faster, quieter and cleaner than typical on-site construction.

The City has been pursuing low embodied carbon construction for civic projects since 2017 and has a number of mass timber projects under design or construction, such as the new Marpole Community Centre and the PNE Amphitheatre. Federal funding commitments have also been secured to help advance how the Vancouver Building By-law addresses mass timber, and the Province's [Mass Timber Demonstration Program](#) has been fully subscribed. Despite these positive indicators and the inherent benefits of mass timber construction, only 8 timber buildings taller than 6 storeys have entered the permit application process or been completed in the last 5 years in Vancouver. Industry stakeholders point to perceived costs and risks around mass timber construction as one of the main reasons for this low volume. Incentives can be a way to encourage more mass timber projects and address these barriers through case studies, peer-to-peer learning opportunities, and other capacity-building work.

Discussion

Staff recommend the following incentives to accelerate the adoption of mass timber buildings in the near term and outline further work that can be undertaken to develop additional supports.

Additional Height and Density in Rezoning Applications

One of the most compelling incentives identified by industry that can be implemented in the near term is to allow additional height and density through the rezoning process. The proposed rezoning policy would offer a pre-defined incentive of additional storeys with commensurate density in community plan areas that already allow buildings of eight or more storeys, as follows (see Appendix B):

- Two additional storeys for sites where 8 to 11 storeys are enabled; or
- Three additional storeys for sites where 12 or more storeys are enabled.

The building must maintain the use and tenure requirements specified in the area plan or policy after the additional storeys are added. Projects will be evaluated on a case-by-case basis, with proposals for additional height and commensurate density evaluated alongside public realm impacts and urban design considerations, including view cones and shadow impacts on significant public spaces.

In-stream rezoning applications would be eligible to seek incentives through the proposed rezoning policy, noting that an amended rezoning application may result in implications to the review timeline and other potential requirements to be determined on a case-by-case basis.

Additional Height in District Schedule Areas – Zoning and Development By-law amendment

Currently, Section 10 of the Zoning and Development By-law allows the Director of Planning to increase height by approximately 6% to accommodate mass timber construction through a conditional review process. Staff recommend adding an additional 4% as an incentive amount, for a total of 10% in Section 10, and making the regulation outright to streamline the process (see Appendix A). This change provides an incentive for sites that are not undergoing a rezoning process. Making the regulation outright also increases certainty for proponents at the earliest stages of the process.

Specialized Support

In discussions with industry, some practitioners said that the uncertainty of entering into the permit process with a new building form could outweigh the advantages of mass timber. In response, senior staff members have agreed to convene to provide early advice to proponents on the supportability of mass timber design elements for applications involving buildings over six storeys at the enquiry stage, before an application is made. This will include staff from the Development Planning, Building, and Project Facilitation groups who can identify challenges to the project early on and assist with following it through. This early access to expertise is intended to mitigate the uncertainty and complexity around building with a relatively new form of construction. Staff in relevant departments across the City would also be trained in mass timber construction in order to help develop expertise and familiarity with this type of building.

Building By-law Amendments

In addition to zoning incentives, staff are also working to make it easier to build with mass timber with respect to the Building By-law. These efforts include improvements to permit processes, as well as changes to the Building By-law to allow more uses of mass timber.

Changes to the Building By-law, which will come to Council under a separate report in 2024, are planned to include both adopting Provincial changes to allow 18-storey mass timber construction as well as City-led efforts to allow mass timber to be used on firewalls and walls on the lot line, which could have broad application in low-rise commercial buildings. While many projects proceed today using the Alternative Solutions process, accepting more mass timber solutions outright in the Building By-law would mean reduced time and effort spent on alternative approvals by both applicants and staff.

Consultation

Consultation included developers, consultants, and architects who provided feedback on these and other potential incentives. These participants generally supported incentives that could offset the cost of early adoption of mass timber and reduce the uncertainty around the permit process.

Consultation also included staff from a range of departments, whose recommendations informed the development of these incentives in terms of keeping incentives simple and minimizing permitting process impacts.

Monitoring and Review

Staff will monitor uptake of these incentives and report back in approximately two years with recommendations, including exploration of additional incentives and barrier removal where possible.

Financial Implications

There are no financial implications.

Legal Implications

If enacted, the Recommendations in this report would facilitate mass timber construction.

Conclusion

Given the inherent complexity of designing and constructing projects, there may not be just one incentive that can cause proponents to select mass timber construction. The different options and incentives in this report can be considered as tools in a toolkit for developing more mass timber buildings. The proposed tools are intended to reduce complexity for applicants and offset the early adoption cost of mass timber construction.

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APPENDIX B
DRAFT MASS TIMBER POLICY FOR REZONINGS

Policy

Mass Timber Policy for Rezonings

Approved by Council [Month Day, Year]



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1 BACKGROUND AND CONTEXT

In December 2023, City Council approved incentives to advance mass timber buildings in community plan areas. Expanding the use of mass timber is a priority action under the Climate Emergency Response goal of reducing carbon emissions related to construction materials. Mass timber is a low carbon material with good insulating properties that can be manufactured off-site. Building with mass timber can reduce the embodied carbon of construction; improve energy efficiency; and reduce the time, cost, and community impacts of on-site construction.

2 INTENT

This policy provides the project requirements and criteria which will guide consideration of additional height and density for rezoning applications that use mass timber construction. The intent of the policy is to enable more new buildings of 8 or more storeys to use mass timber for their structure.

3 POLICIES

3.1 Mass Timber Policy for Rezonings

- 3.1.1 In areas of the city where existing plans and policies already enable redevelopment to 8 storeys or more, allow modest increases in height and density for projects which meet the definition of mass timber construction. This policy does not apply in areas where the height limit is less than 8 storeys.
- 3.1.2 Additional height and commensurate density will be considered generally up to:
- (a) **Two additional storeys** for sites where 8 to 11 storeys are enabled; or
 - (b) **Three additional storeys** for sites where 12 or more storeys are enabled.
- 3.1.3 The building must maintain the use and tenure requirements specified in the area plan or policy after the additional storeys are added.
- 3.1.4 Projects will be evaluated on a case-by-case basis, with proposals for additional height and commensurate density evaluated alongside public realm impacts and urban design considerations, including view cones and shadow impacts on significant public spaces.
- 3.1.5 Applicants must demonstrate that the building meets the definition of mass timber in Section 2 of the Zoning and Development By-law.

3.2 Additional Considerations

Limits

- 3.2.1 The Director of Planning may decline to support additional height if doing so would unduly affect other civic goals such as:
- (a) Council-approved view corridors, except where permitted in policy;
 - (b) Sunlight on public park spaces, at the times specified for that area; or
 - (c) Conservation of heritage property.
- 3.2.2 In case (b), consideration will be given to redistributing the commensurate density throughout the building to avoid additional height.
- 3.2.3 This policy can be combined with the Below-Market Rental Housing Policy for Rezoning in community plan areas that do not offer additional height or density for below market rental development, such as in Grandview-Woodland. For community plan areas where additional height and density for below-market rental are already defined, including those in Broadway, Cambie Corridor and the West End, the Below-Market policy does not apply and cannot be combined with this policy.
- 3.2.4 This policy is not intended to be combined with the increases in height and density that can be considered for the delivery of local-serving retail, service uses, childcare, or heritage conservation in the Broadway Plan.
- 3.2.5 This policy may be combined with heritage property conservation and incentives in other areas, provided that the proposal complies with relevant policies including the Heritage Policies, and provided the above noted requirements and considerations are evaluated.

Discretion

- 3.2.6 Where appropriate, the Director of Planning may recommend varying the dimensional limits in Planning policies or guidelines, such as floor plate sizes or upper level setbacks, to facilitate mass timber construction. Applicants must show how the variation is connected to the dimensional requirements of mass timber, and how the effect of these variances will be mitigated through other aspects of the design.

Table 1: Examples

Plan	Area Plan	Maximum Storey Height in Plan	Additional Storeys for Mass Timber
Broadway	Granville/Burrard Slopes – Area D – p.127	10 for secured market and below-market rental	2 more secured market and below-market rental
	Mount Pleasant RT Areas – Area D – p.260	12 for secured market and below-market rental	3 more secured market and below-market rental
Grandview-Woodland	Hastings Slope – South side of Hastings St – Commercial to Victoria – p.62	8 for mixed-use development for sites with min. 200 ft. frontage	2 more mixed-use
	Hastings Plateau – North side of Hastings St – McLean to Woodland – p.59	15 for mixed-use development on sites with min. 200 ft. frontage and min. 20% residential as non-market	3 more mixed-use with min. 20% residential as non-market

Note: The building must maintain the use and tenure requirements specified in the area plan or policy after the additional storeys are added.