



## Transferability of 2021 International Building Code Tall Wood Building Provisions to the National Building Code of Canada

<https://research.thinkwood.com/en/permalink/catalogue2806>

Organization: GHL Consultants Ltd.  
Fast + Epp

Year of Publication: 2021

Format: Report

Material: CLT (Cross-Laminated Timber)  
Glulam (Glue-Laminated Timber)  
NLT (Nail-Laminated Timber)  
Other Materials

Application: Hybrid Building Systems  
Wood Building Systems

Topic: Fire  
Design and Systems  
Seismic

Keywords: National Building Code of Canada  
International Building Code  
Building Code  
Encapsulated Mass Timber Construction  
Encapsulation  
Exposed Mass Timber Elements  
Building Height  
Building Area  
Fire Resistance Rating

Research Status: Complete

### Summary:

The acceptable solutions in Division B of the anticipated 2020 NBCC limit the height of Groups C and D buildings of sprinklered encapsulated mass timber construction (EMTC) to 12 storeys in building height, and a measured building height of 42m. The recently published 2021 IBC contains provisions to permit buildings of mass timber construction under the IBC Type IV construction, surpassing the NBCC provisions by maximum building height, building area, occupancy groups, and interior exposed timber. The IBC mass timber buildings are permitted to have a building height of maximum 18 storeys, depending on the occupancy group. Within Type IV construction, four subdivisions are described to have varying maximum permissible building height, area, fire resistance rating (FRR), and interior exposed timber.

Through a comparison of mass timber provisions of both Codes, relevant research reports, test reports, industry standards, this report documents the consequential and inconsequential differences and developed conclusions on whether the NBCC can adopt the IBC provisions, and with what modifications so that the new provisions may fit the NBCC context.

Online Access: Free

**Resource Link**

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<https://www.bcfii.ca/wp-content/uploads/2021/06/2021-06-07-Transferability-Report-GHL-7958.00-FE-GHL.pdf> 