



Acoustics Summary: Sound Insulation in Mid-Rise Wood Building

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Organization: National Research Council of Canada

Year of Publication: 2014

Format: Report

Material: CLT (Cross-Laminated Timber)
 Light Frame (Lumber+Panels)

Application: Wood Building Systems

Topic: Acoustics and Vibration
 Design and Systems

Keywords: Mid-Rise
 Sound Insulation
 Impact Sound Transmission
 Airborne Sound Transmission

Research Status: Complete

Summary:

This report summarizes the acoustics research component regarding sound insulation of elements and systems for the research project on mid-rise and larger wood buildings. The summary outlines the background, main research considerations, research conducted and major outcomes. Further details of the design and the results can found in the appendix of Client Report A1-100035-02.1 [1].

The goal of the acoustics research components was to develop design solutions for mid-rise wood and wood-hybrid buildings that comply both with the current National Building Code of Canada (NBCC) 2010 [2] requirements for direct sound insulation and with the anticipated requirements for flanking sound transmission in the proposed, 2015 version of the NBCC. In addition, the design solutions were to provide better impact sound insulation while still achieving code compliance for all other disciplines (interdependencies) as identified in the final report of the scoping study conducted in FY 2010/2011 [3]

Online Access: Free

Resource Link

<http://doi.org/10.4224/21274554>