



Seismic Design of Mixed CLT/Light-Frame Multi-Storey Buildings

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

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Shear Walls

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Mechanical Properties

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Q Factor
Eurocode 8
Nonlinear Time History Analysis
Dynamic Analysis

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Summary:

This paper presents a study on the seismic design of hybrid multi-storey wood buildings made of CLT and Light-Frame shear walls acting at the same level. Within the framework of the force-based method, the aim of this study is to propose a simple formulation in order to establish the value of the q-factor of the hybrid system which could be also implemented in seismic design codes such as Eurocode 8. This was achieved by analysing the results of nonlinear dynamic (time-history) analyses performed on a four storey case-study building with different combinations of CLT and Light-Frame shear walls.

Online Access: Free

Resource Link

<http://hdl.handle.net/20.500.12708/172>