



An Approach to CLT Diaphragm Modeling for Seismic Design with Application to a U.S. High Rise Project

<https://research.thinkwood.com/en/permalink/catalogue1671>

Author: Breneman, Scott
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Year of Publication: 2016

Country of Publication: Austria

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Floors
Wood Building Systems

Topic: Seismic
Design and Systems

Keywords: US
Diaphragm
Model
High-Rise

Language: English

Conference: World Conference on Timber Engineering

Research Status: Complete

Notes: August 22-25, 2016, Vienna, Austria
p. 3844-3852

Summary:

A candidate CLT diaphragm analysis model approach is presented and evaluated as an engineering design tool motivated by the needs of seismic design in the United States. The modeling approach consists of explicitly modeling CLT panels as discrete orthotropic shell elements with connections between panels and connections from panels to...

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Resource Link

<http://repositum.tuwien.ac.at/obvutwoa/content/pageview/1649389> ↗



An Approach to CLT Diaphragm Modeling for Seismic Design with Application to a U.S. High-Rise Project

<https://research.thinkwood.com/en/permalink/catalogue1710>

Author: Breneman, Scott
McDonnell, Eric
Zimmerman, Reid

Organization: WoodWorks

Year of Publication: 2017

Country of Publication: United States

Format: Report

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems
Floors

Topic: Design and Systems
Seismic

Keywords: US
Model
Diaphragm
High-Rise

Language: English

Research Status: Complete

Online Access: Free

Resource Link

<http://www.woodworks.org/wp-content/uploads/Approach-to-CLT-Diaphragm-Modeling-for-Seismic-WoodWorks-Jan-2017.pdf>



Development and Full-Scale Validation of Resilience-Based Seismic Design of Tall Wood Buildings: The NHERI Tallwood Project

<https://research.thinkwood.com/en/permalink/catalogue1477>

Author: Pei, Shiling
van de Lindt, John
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Sause, Richard
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Ryan, Keri
Dolan, Daniel
Buchanan, Andrew
Robinson, Thomas
McDonnell, Eric
Blomgren, Hans-Erik
Popovski, Marjan
Rammer, Douglas

Year of Publication: 2017

Country of Publication: New Zealand

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Walls
Wood Building Systems

Topic: Design and Systems
Seismic

Keywords: Tall Wood
Post-Tensioned
Rocking Walls
Resilience-Based Seismic Design
Shaking Table Test

Language: English

Conference: New Zealand Society for Earthquake Engineering Conference

Research Status: Complete

Notes: April 27-29, 2017, Wellington, New Zealand

Summary:

With global urbanization trends, the demands for tall residential and mixed-use buildings in the range of 8~20 stories are increasing. One new structural system in this height range are tall wood buildings which have been built in select locations around the world...

Online Access: Free

Resource Link

http://db.nzsee.org.nz/2017/O5C.2_Ryan.pdf ↗



Framework - A Tall Re-Centering Mass Timber Building in the United States

<https://research.thinkwood.com/en/permalink/catalogue713>

Author: Zimmerman, Reid
McDonnell, Eric

Year of Publication: 2017

Country of Publication: New Zealand

Format: Conference Paper

Material: CLT (Cross-Laminated Timber)

Application: Wood Building Systems

Topic: Design and Systems
Seismic

Keywords: US
Mixed-Use Building
Tall Wood

Language: English

Conference: New Zealand Society for Earthquake Engineering Conference

Research Status: Complete

Notes: April 27-29, 2017, Wellington, New Zealand

Summary:

Framework is a 12-story, 140ft (43m) tall mixed use building to be constructed almost entirely out of mass timber, including both the gravity and lateral force-resisting systems, in a region of high seismicity in the United States (Portland, Oregon). Utilizing performance-based seismic design and nonlinear response history analysis...

Online Access: Free

Resource Link

http://db.nzsee.org.nz/2017/O5C.3_Zimmerman_&_McDonnell.pdf