

NMIT Arts and Media Timber Demonstration Project

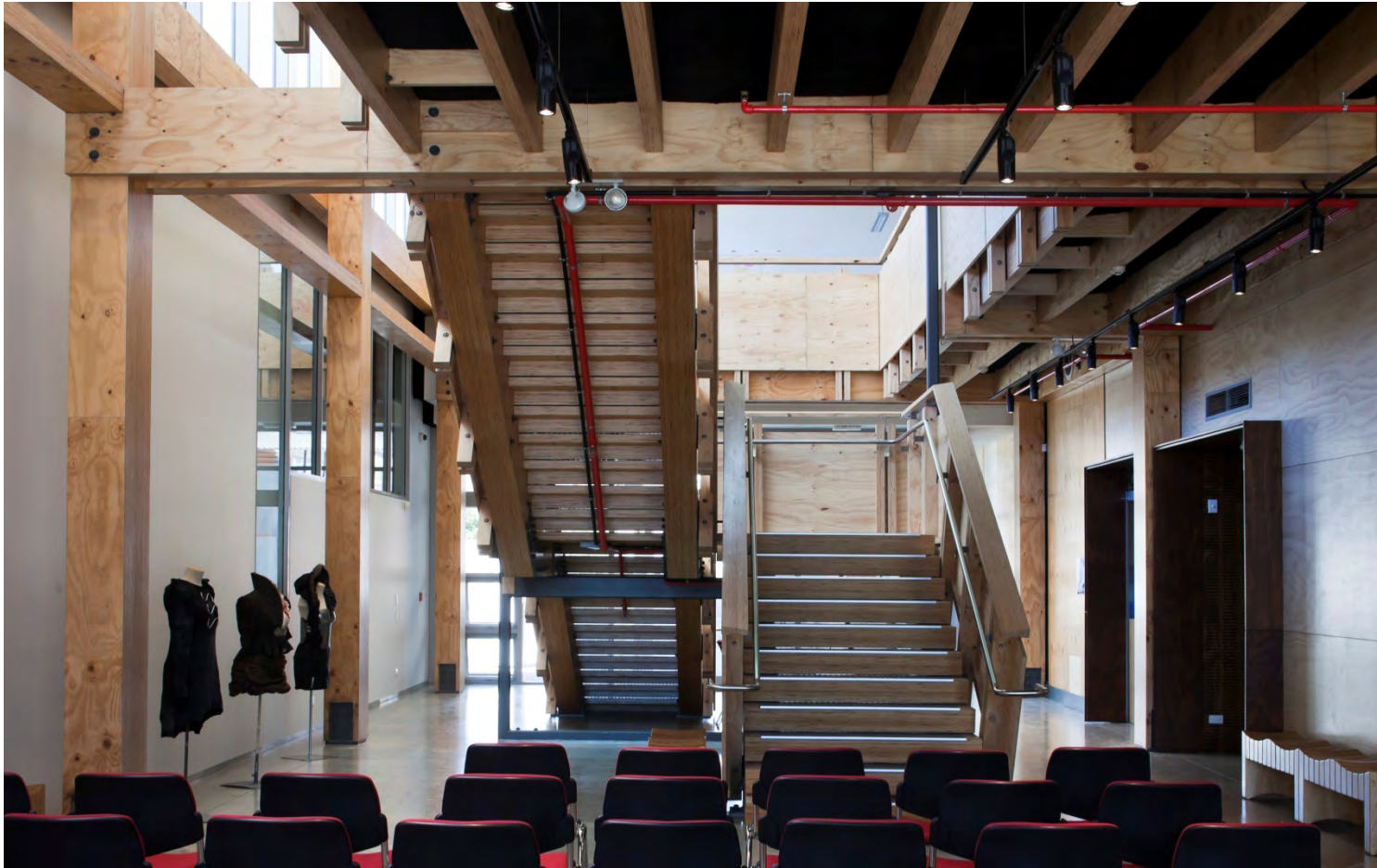
18th May 2011

Carl Devereux



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Project Brief



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Design

irving : smith : jack
ARCHITECTS

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Engineering Design

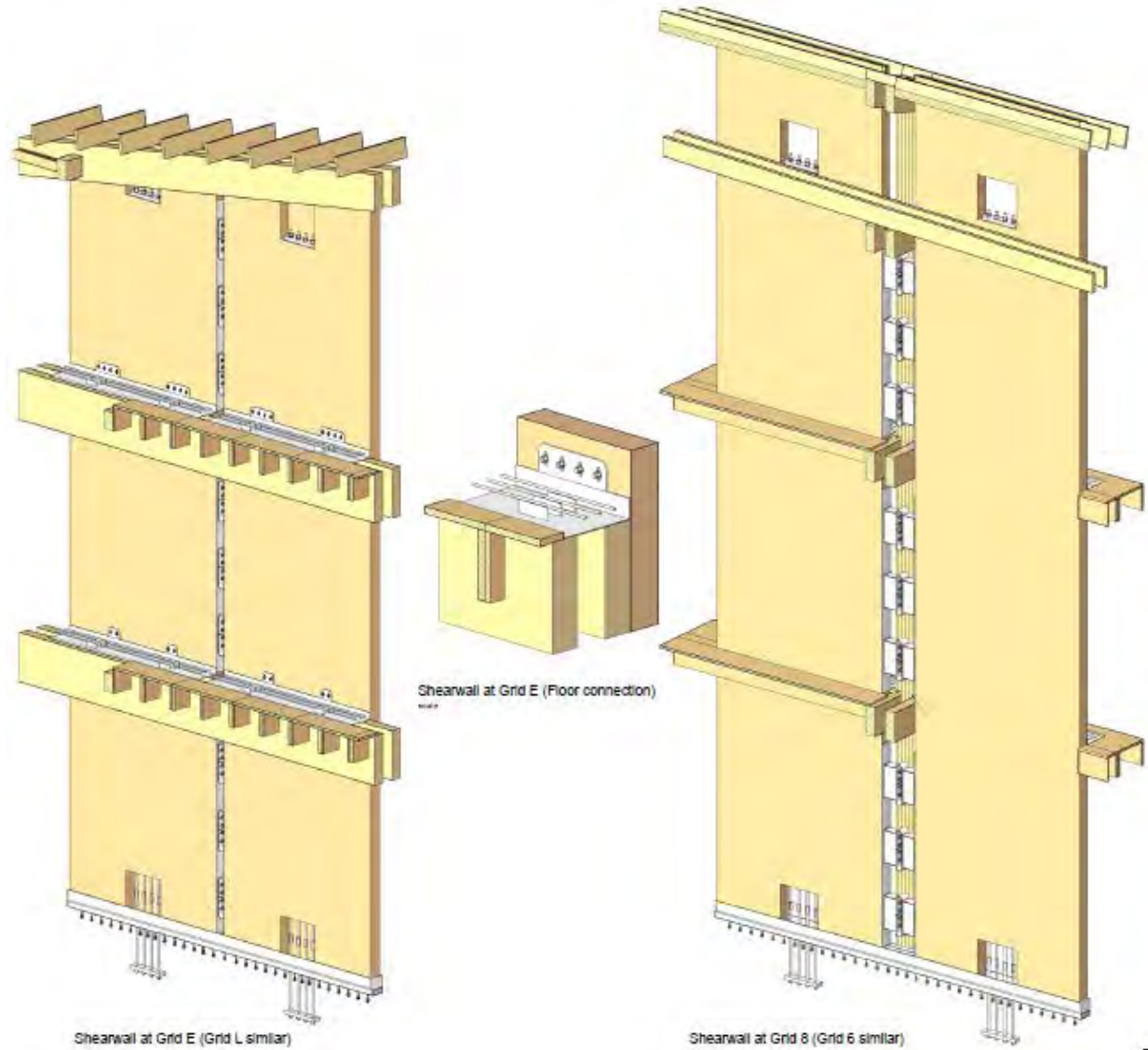
Innovative Seismic Design

- Damage Avoidance Design
- Design limits the damage in a major earthquake and will ensure building remains operational
- First time a design of this type has been built in timber
- Design uses pairs of “rocking” timber walls to absorb seismic energy
- Design based on research and testing by University of Canterbury

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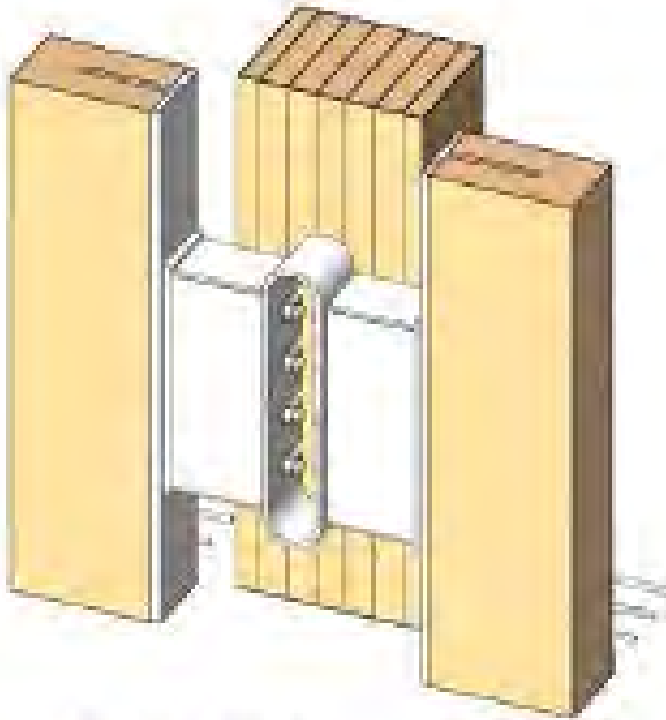
Structural Concept

“Rocking” Timber Walls



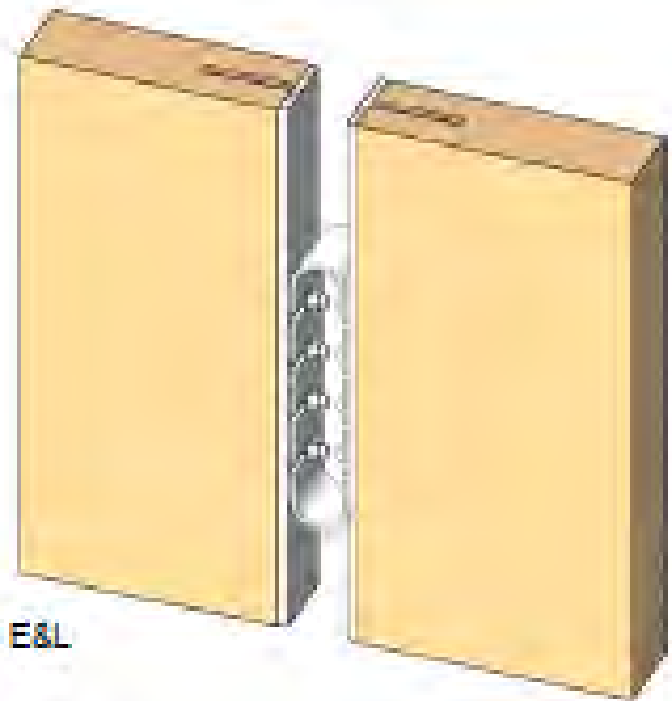
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Structural Concept



EDD - GRIDS 6&8

scale



EDD - GRIDS E&L

scale

**Seismic Energy
Dissipaters**

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Structural Concept



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Seismic
Energy
Dissipators



Post tensioned
steel



Wall Erection

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Structural Concept



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Build Ability

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Build ability



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Finished Building

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Finished Building



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Finished Building



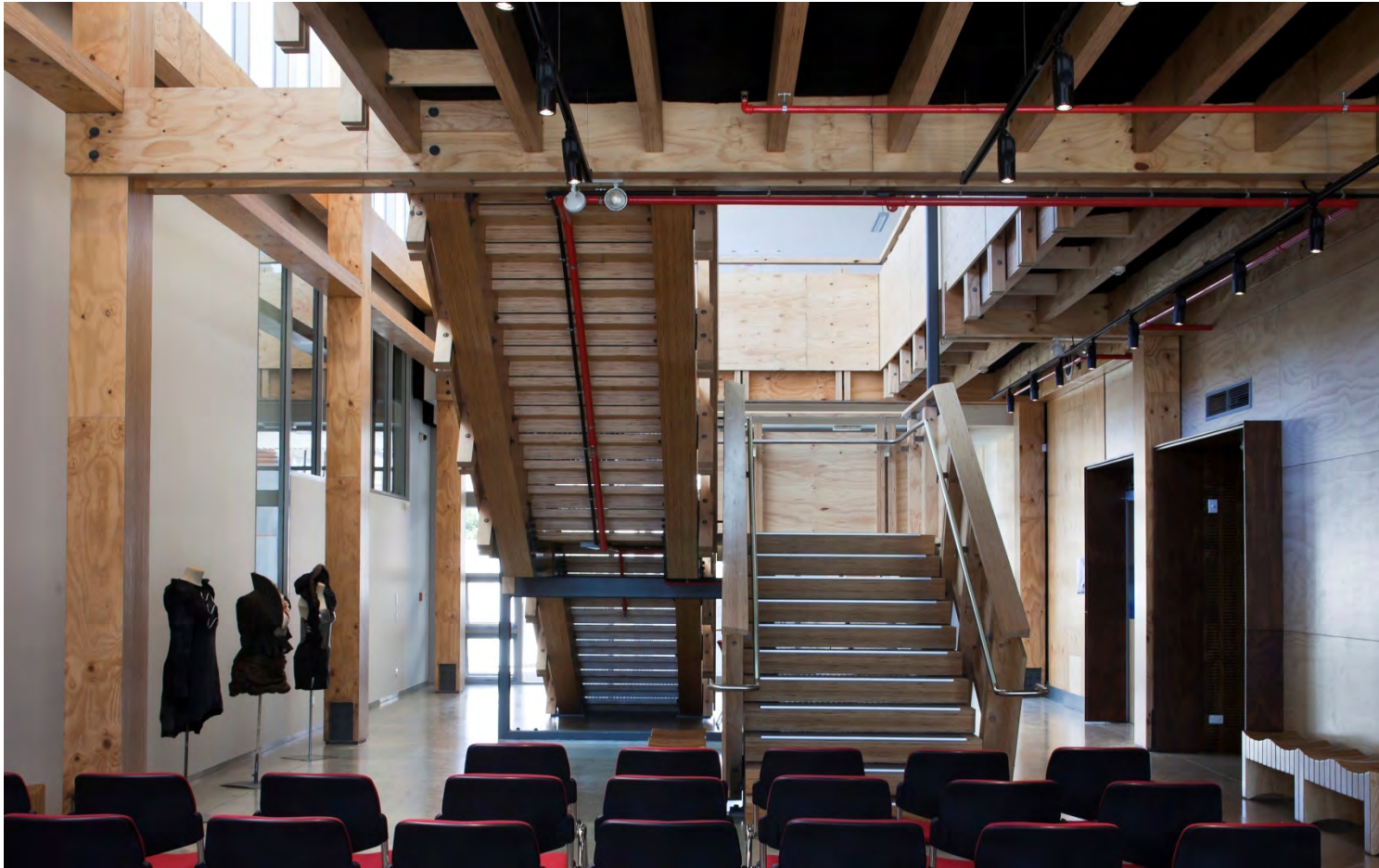
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Finished Building



NMIT – Arts and Media

Finished Building



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Finished Building

Stakeholder Outcome

- NMIT CEO – “Truly inspirational design”
- Project Architect – “state of the art timber engineering has provided a creative and sustainable solution that meets all of the clients needs ”
- Ministry of Agriculture & Forestry – “advancing the use of wood to expand the NZ industry”
- Design Competition Panel - “sound balance between demonstrating innovative timber technology, and providing a simple economic and environmentally sound solution”

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Thankyou