

Disciplinary Theme 2

Whole-of-Building Seismic Performance



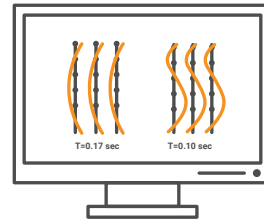
Te Hirainga Rū | QuakeCoRE
Aotearoa New Zealand Centre for Earthquake Resilience



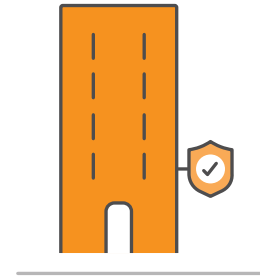
Structural component and system tests



Numerical simulations of building response



Observations of buildings in earthquakes



Design procedures and guidelines



Improved building performance

Analysing how buildings behave during earthquake shaking, considering all components as an entire system, to improve design solutions for safer, more usable and readily repairable buildings.

Taking a holistic approach to building performance involves quantifying how the structural and non-structural parts of a building interact during seismic shaking.

Full-scale, multi-storey buildings will be tested on shake tables in collaboration with international partners to investigate designs that minimise damage and enable rapid repair after earthquakes.

Research Areas

- Implication of design and assessment methods
- Interactions between structural components
- Diaphragm assessment and design
- Non-structural component demands

Programme Area Leaders:

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