

SUMMER RESEARCH 2024/25

PROJECT ABSTRACT



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

PROJECT # 34

SUPERVISOR/S:	Dr Megan Boston
PROJECT TITLE:	Engineering solutions for community-centric heritage building preservation
FIELD:	Civil Engineering/Urban Planning
DIVISION/SCHOOL:	HECS - Te Kura Mata Ao School of Engineering
PROJECT LOCATION:	Hamilton

PROJECT ABSTRACT:

Heritage buildings are often central to how people identify with their communities, but many require expensive structural strengthening to meet earthquake and other safety requirements. While community consultation is commonly sought in initial remediation planning, there is no way to translate community sentiment into retrofit or preservation decision-making. This research will quantify how communities identify with heritage buildings. It will then create a framework for incorporating community voices into a decision process for heritage buildings, considering the viability of multiple restoration, retrofit, and strengthening options.

STUDENT SKILLS:

- Qualitative data analysis
- Database organisation
- MS Office

PROJECT TASKS:

1. Compile a database of high-level retrofit and restoration decisions for heritage buildings, including cost, timeframe, constructability, and community consultation.
2. Catalogue Heritage buildings in Christchurch, New Zealand and their damage/restoration from the 2010-2011 Earthquakes. Record location, construction typology, heritage significance, and any community sentiment records.
3. Review international literature on Heritage building's role in establishing a sense of place in a community.
4. Evaluate the CEISMIC Canterbury digital archive to collect qualitative data connecting the community's sense of place to heritage buildings before and after the Christchurch earthquake.
5. Create a research poster that summarises key findings.

EXPECTED OUTCOMES:

- Student's Research Poster (as per clause 6 of the [Scholarship regulations](#))
- Database of restoration options for heritage buildings
- Report reviewing the international literature and SEISMIC database looking at heritage building's role in establishing a sense of place

