

NZIF

12 SEPTEMBER
2022



AIR NEW ZEALAND



Nelson Airport



90 Devonport Road



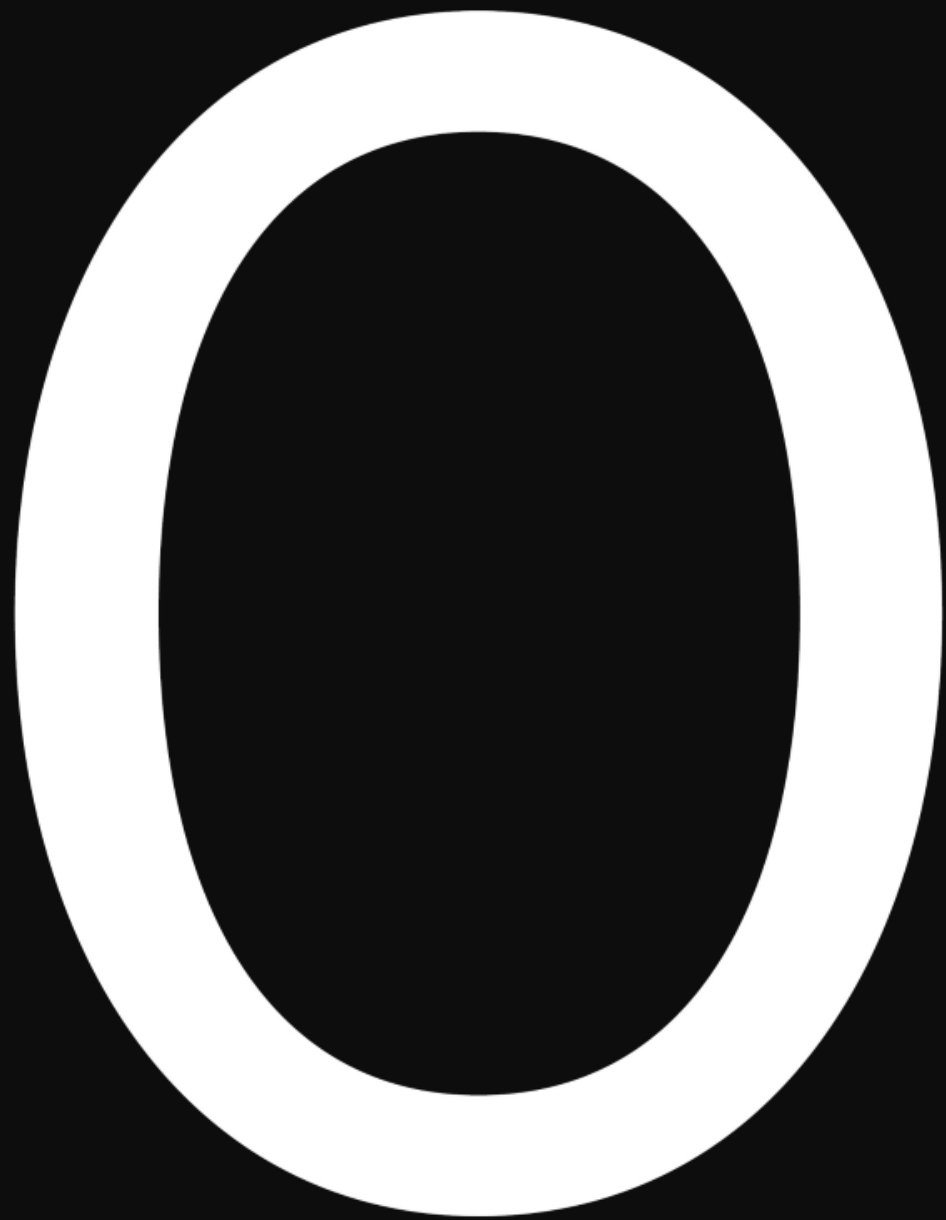


Site 6



What we build,
builds communities





Join us on the
path to Net Zero
2050





Net Zero Now

ORIGINAL

946kgCO₂e/m²

ALTERNATIVE

661kgCO₂e/m²



NET

-31%

Project targeting
Zero Carbon certification.
We provided data-informed
design optioneering to
manage the carbon budget
alongside other project
constraints.



Certification

ZC

A Net Zero apartment building in Christchurch. A concrete core is offset with mass timber structure. The energy demand is reduced through a high performance facade and offset through roof and facade mounted PV.



TOTAL

245kgCO₂e/m²

NET

Zero

A healthcare building
briefed for Zero Energy
Certification and a 'Timber
First' approach to the design
led to a whole of life climate
'positive' result.



NET

-427

KGCO₂E/M²



The hottest new thing in sustainable building?

The hottest new thing in sustainable building is, uh, wood

The many, many benefits of using wood in place of concrete and steel.



The Centre for Interactive Research on Sustainability, at the University of British Columbia, showing off some timber.

CIRS

Architects, builders, and sustainability advocates are all abuzz over a new building material they say could substantially reduce greenhouse gas (GHG) emissions in the building sector, slash the waste, pollution, and costs associated with construction, and create a more physically, psychologically, and aesthetically healthy built environment.

The material is known as, uh, wood.

Benefits of Mass Timber:

- 01 Reduced Carbon
- 02 Prefabrication
- 03 Strength to Weight
- 04 Good for body and brain



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KLH Manufacturing Plant

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Potential (!) Constraints:



Lead Times



Market



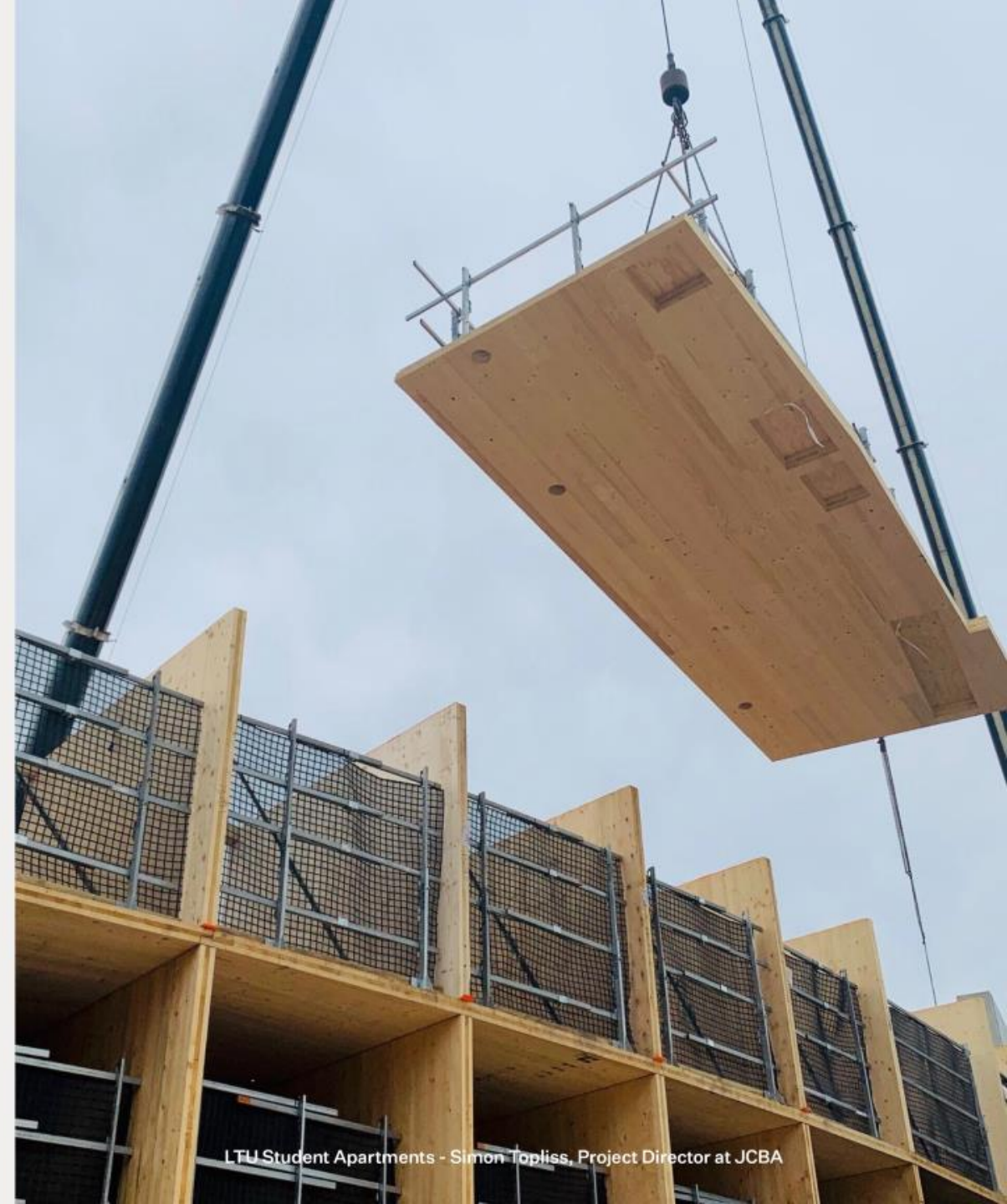
Cost

Design Challengers:

01 Acoustics

02 Fire Engineering

03 Coordination





So... Does the hype stack up?

