



Thermosash 
BUILDING ENVELOPE SOLUTIONS™

Thermoplank examples

Thermoplank

Thermoplank is extruded aluminium unitised planking which we engineer and manufacture to be installed as rainscreen, or for integration into our PW1000 Unitised High Performance Curtainwall System.

To match the aesthetic of terracotta or porcelain tiles, we can use a special matt textured powdercoat finish. Thermoplank can mimic the appearance of large format tiles, baguettes, louvres and corrugation.



Taranaki Base Hospital East Wing - NEWB - unitised aluminium planking integrated into PW1000 High Performance Unitised Curtainwall.



Factory extruded and folded aluminium plank.



Aluminium planking unitised panels with end caps, stacked on factory crates ready for transport.



AUT M1 Mana Hauora Building - unitised aluminium planking provided a lightweight alternative to terracotta due to the floor spans on this project.



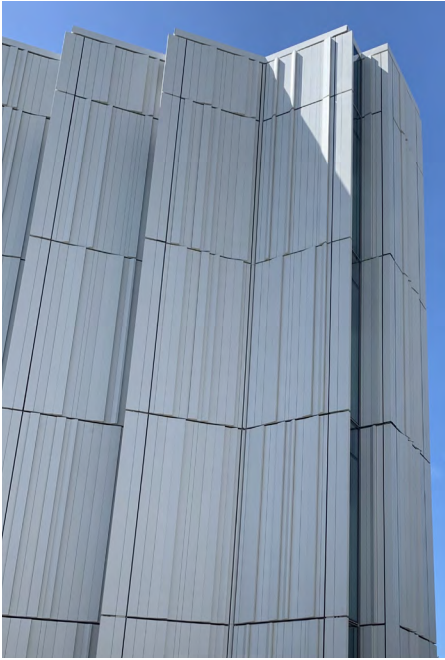
Massey Innovation Complex, Auckland - unitised curtainwall with extruded aluminium plank.



University of Auckland B201 - unitised aluminium planking integrated with high performance PW1000 Unitised Curtainwall delivers an energy efficient envelope.

Auckland University of Technology, building A1

Unitised aluminium planking integrated into PW1000 High Performance Unitised Curtainwall.



Rigid Air Barrier

Thermoplank requires a formed air barrier wall (Rigid Air Barrier - RAB) located behind with a suitably considered primary structure (concrete panel, timber or steel framing) to receive the cladding rail system. A typical installation will require external access such as scaffolding and is best suited to lowrise applications due to the limitations of RABs in multi-storey applications.

Section Sizes

The designer should allow a minimum facade zone from the face of the air barrier of 60mm - this can be larger if more room for external insulation is required. Panel size limitations are calculated on the project location (wind zone / seismic), height, primary structure movement calculations (ULS) and eventual material selection.

Key Features

- unitised panels are factory prefabricated and glazed.
- specifically engineered to accommodate the environmental conditions and design constraints of the project:
- accommodates building movements - both vertical and horizontal (seismic).
- accommodates differential rates of thermal expansion and contraction.
- connection details to accommodate construction tolerances.
- structural member strengths comply with Code or project specification.
- the rainscreen acts as a primary water-stop, the second rear airseal and cavity acts as a backup to collect and drain away water that manages to penetrate the primary barrier, with an integral structural backpan.
- sizing of modules is generally only limited by the project design requirements, economic considerations, transport and site crane installation limitations.

CAD Downloads

<https://www.thermosash.co.nz/downloads-resources/cad-downloads/rainscreen-downloads/unitised-rainscreen-thermoplank/thermoplank-downloads/>

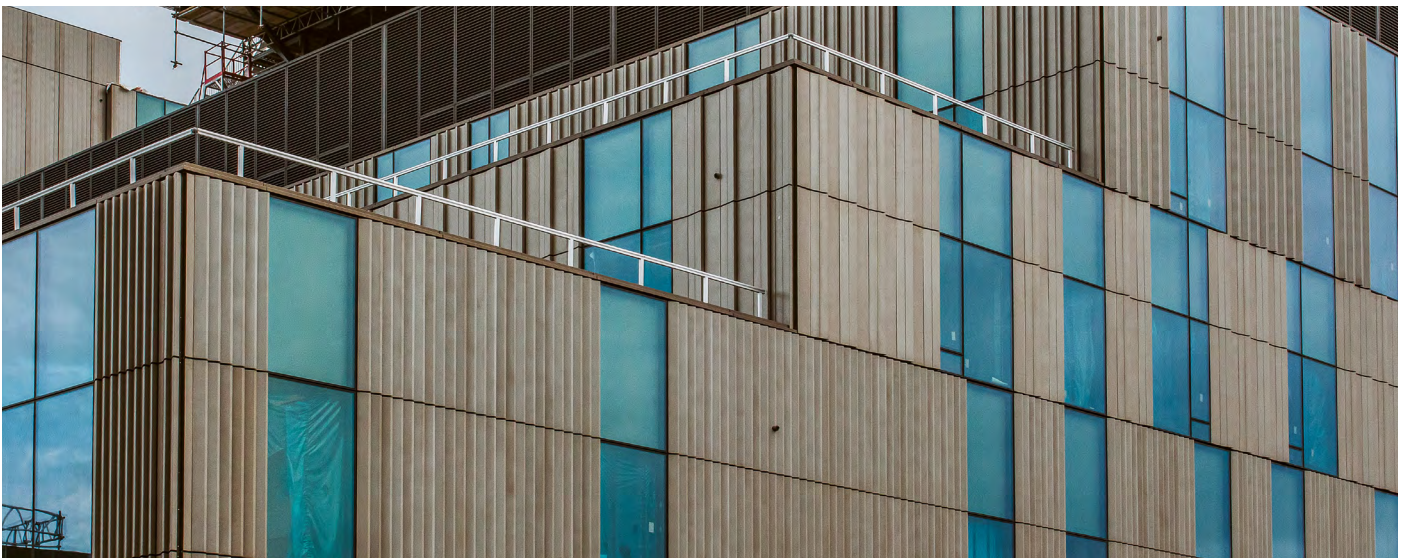
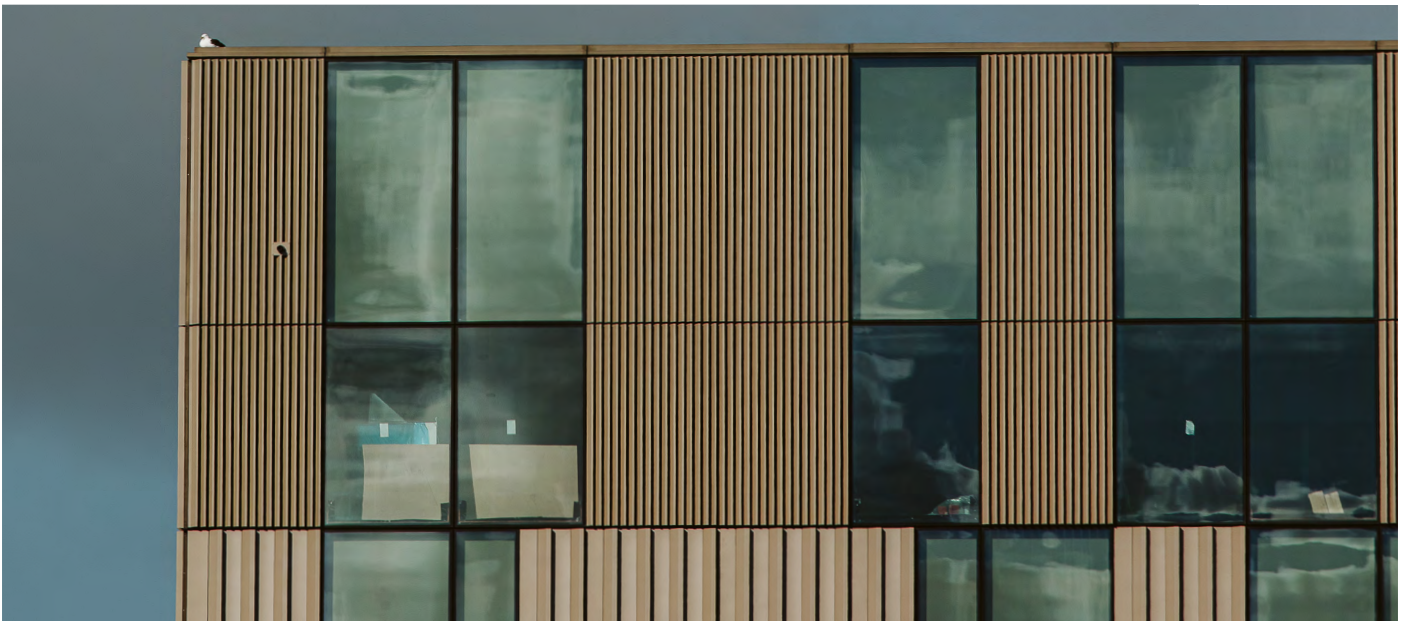
Te Ao Nui Building, Palmerston North

Unitised aluminium planking integrated into PW1000 High Performance Unitised Curtainwall.

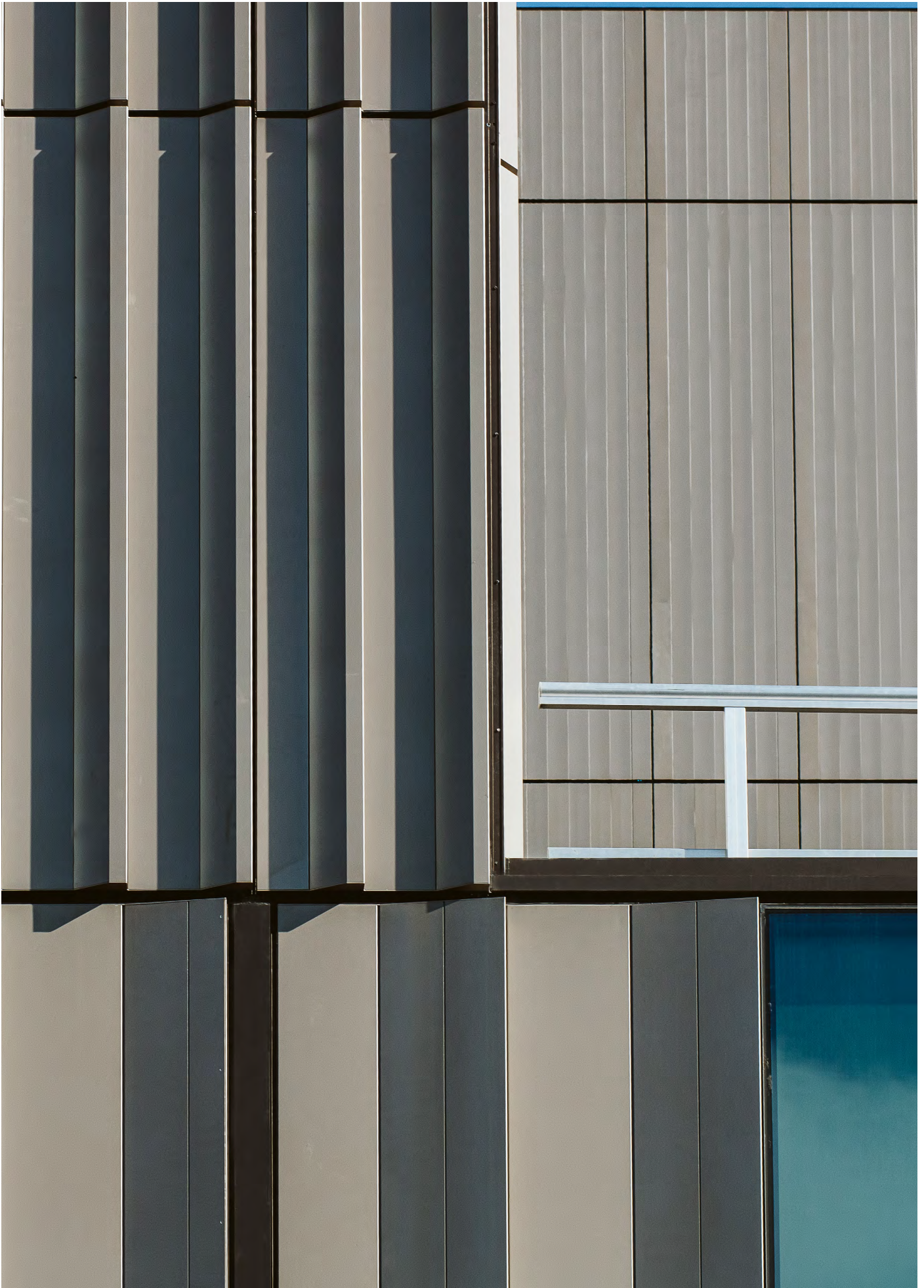


Taranaki Base Hospital East Wing - NEWB

Sustainable Thermosash DecarbAL™ low embodied carbon Thermoplastic integrated into curtainwall.



Taranaki Base Hospital East Wing - NEWB
Thermoplank profile examples



University of Auckland B201

Unitised aluminium planking integrated with PW1000 HP Unitised Curtainwall delivers an energy efficient envelope.

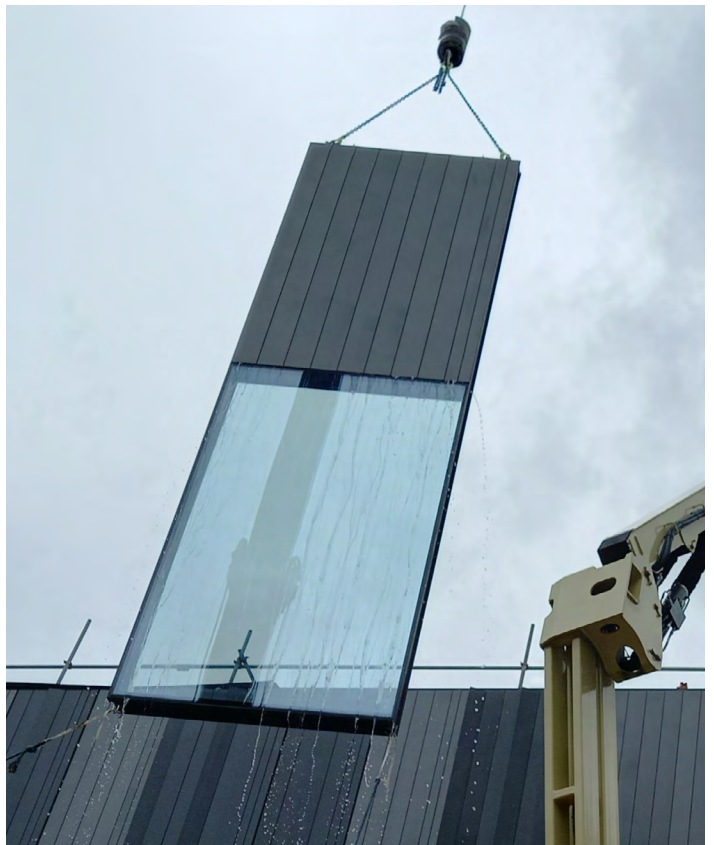
Energy efficient facade performance

The existing 50-year-old concrete clad building was reclad with a low-carbon high performance Thermosash PW1000 Unitised Curtainwall system. The glass-to-wall ratio, combined with high-performance glass and leading passive house airtightness principles, allowed for an 'ultra-low energy' mechanical ventilation system. As a result, the building uses nearly one-third the energy of an equivalent new build in New Zealand.



Massey Innovation Complex, Auckland

Unitised extruded aluminium plank integrated with PW1000 High Performance Unitised Curtainwall.



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