

About SCNZ

Steel Construction New Zealand (SCNZ) aims to advance the interests of New Zealand's diverse steel construction industry by promoting the benefits of steel solutions in commercial building and infrastructure projects. Members include manufacturers of structural steel and steel products, distributors, fabricators, designers, detailers, galvanisers, and paint and building supply companies.

SCNZ provides its members with technical advice on the latest in steel design trends and standards, networking opportunities, and a representative voice with key industry and government decision-makers. For more information please visit www.scnz.org

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Benefits of Steel



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Structural steel is the material of choice in most of the world's major construction markets. In the United Kingdom steel commands a market share of almost 70%¹; in the United States this figure is around 60%². Here in New Zealand, steel's market share is approximately 50%³.

Steel Construction New Zealand aims to educate the country's construction sector – from developers to architects to engineers to quantity surveyors to builders to tenants – about the benefits of building in steel and, in doing so, increase its use in the buildings and infrastructure of today and tomorrow.



Why Build in Steel?

Steel presents a compelling case from both a technical and an economic perspective.

Quality

- Structural steel is manufactured in New Zealand under tightly controlled factory conditions.
- It is rigorously tested before it leaves the factory.
- A technology-led and highly automated design and manufacturing process results in precision products.

Versatility

- Thanks to steel's superior strength-to-weight ratio, long-span beams allow large column-free spaces, providing flexibility in the floorplan.
- Steel is easily modified if changes are needed during installation.
- Steel-framed buildings are future-proofed because major alterations, such as the addition of new floors, are easily made.
- Steel's 'buildability' allows a smooth transition from architectural concept to engineering design.

Safety

- Steel is a proven performer in seismic and fire events: modern multi-level steel-framed buildings in Christchurch were passed fit for re-occupation following the February 2011 earthquake with no structural repair necessary.
- New Zealand academics and engineers are leading the way in the development of new low-damage seismic-resisting steel systems.
- Because steel is delivered to the building site pre-assembled, fewer people and less time are required to install it – and this means less workplace accidents.

Sustainability

- Steel is one of the world's most recycled materials. In the UK, 99%⁴ of structural steel produced will be recycled and re-used in its lifetime.
- It can be dismantled and removed from one building and altered and installed in another, endlessly, without compromising its properties.
- Because it is manufactured and fabricated to exact specifications, minimal waste is produced.
- A Ministry of Agriculture and Forestry commissioned report⁵ demonstrated that, on a whole-of-life basis, steel's environmental performance compares favourably to other materials such as concrete and timber.
- Optimal thermal performance over a 24-hour period is achieved using only a 100mm-thick floor slab thickness. All forms of steel-concrete composite construction meet this requirement.

Value for Money

- Overall construction programmes are shorter compared to other materials, thanks to the efficiency of off-site manufacturing and fabrication, and 'just in time' deliveries.
- Fast installation by fewer people and in any weather means less on-site cost.
- Steel's light weight means foundations can be less substantial and cheaper.
- In a multi-storey situation, lower-level fitouts can commence sooner, leading to earlier occupation.

Complimentary Design Support

- SCNZ offers a preliminary design support service, free to all building specifiers. SCNZ works alongside your design team to explore the best steel options for your building or infrastructure project, feeding its expertise into your process. Contact SCNZ for more information.

1. Source: British Constructional Steelwork Association. 2. Source: American Institute of Steel Construction. 3. SCNZ estimate only, based on available data. 4. Source: Corus publication (UK) Sustainable construction: the bigger picture. 5. Source: Research report 2008-02, University of Canterbury: Environmental Impacts of Multi-storey Buildings Using Different Construction Materials.