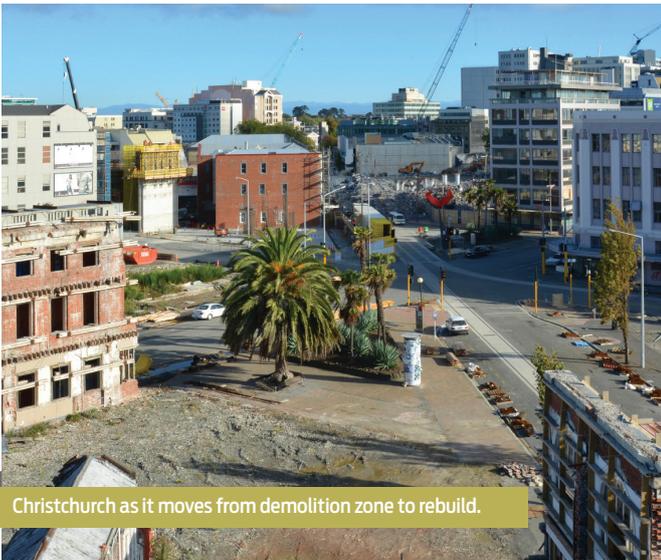


Greening the Garden City

Could Christchurch become our first green city? An environmental rating tool developed specifically for the rebuild makes it a possibility.

BY NICK HELM, FREELANCE WRITER, TENPOINT LTD, RAUMATI SOUTH



Christchurch as it moves from demolition zone to rebuild.

DEVELOPERS WORKING on the Christchurch rebuild have a new tool on their belt. The Building a Sustainable Environment (BASE) tool is a simple, introductory-level rating developed specifically to help designers and developers benchmark environmental features for Christchurch's new commercial and mixed-use buildings.

The tool intentionally targets a range of buildings - offices, retail spaces including shops, cafés, restaurants and bars, residential apartment complexes and multi-use combinations. Its aim is to meet the needs of central city property owners, tenants and residents alike.

A collaborative effort between the Green Building Council (NZGBC) and the Christchurch City Council, BASE was formulated by an advisory group of local industry specialists, including representatives from Beca, Warren and Mahoney, and Davis Langdon.

Range of rating tools

NZGBC already offers several rating tools, including Green Star, Homestar and the new NABERS tool. However, although BASE is a design and build tool and therefore resembles Green Star in many respects, it was developed separately for Christchurch.

Like Green Star, BASE requires a sustainable design and that environmental features to be considered during the design and construction phase but sets a green building standard that can be widely adopted in Christchurch.

'There are also key differences between BASE, Homestar and NABERS,' says Juergen Lange, Technical Director at NZGBC. 'With Homestar, we look at every dwelling independently, even in a residential multi-unit house, whereas BASE works across the building as a whole. NABERS is purely a use-phase tool to measure performance once the building is complete.'

Adding up green credits

For BASE certification, a building must accumulate a number of credits in five categories - site, services, comfort, facilities and materials.

The site category deals with how the building project is controlled, assessing waste management, environmental management systems

and the value of any areas of ecological value, such as landscaping, green roofs and green walls.

The services category considers water and energy use, ozone depletion, ventilation and cooling, heat recovery and related factors.

Comfort looks at the wellbeing of the building's occupants and gauges if it provides sufficient air quality, temperature control and natural light.

The facilities category assesses how the building deals with things like recycling, and if walking and cycling amenities are provided.

The materials category examines the components used during construction, such as timber, concrete and steel, and the levels of any environmentally damaging chemicals in finishes and furnishings.

'BASE considers the usual aspects of building construction, such as materials, waste and energy efficiency, but it also takes into account how people feel when they use the building,' says Juergen. 'That's why we have credits for occupant comfort, which, for example, looks at the levels of daylight in the office, work and living spaces.'

The bottom line

Given a choice, most employees would likely prefer to work in a green building, but is there sufficient motivation for building owners and developers to bring about the wholesale adoption of BASE in Christchurch? Juergen thinks there is.

The NZGBC estimates that BASE will help Christchurch building owners and investors construct entry-level green buildings for 0.5-1.3% of capital cost, with a payback period of 2.4-11.4 years, depending on the building size. In reality, the extra costs could be lower than this since many investors are already planning designs well above minimum Building Code requirements.

'Everyone who invests in the rebuild in Christchurch should make a commitment to a better city after the rebuild,' he says, 'and that means working towards a better environment, not just looking at cost.'

The benefits of green buildings are well documented, and BASE-rated buildings are likely to increase occupier satisfaction, improve productivity, reduce operating costs and enhance market value.

A new, BASEd-up Christchurch could enjoy higher-value building stock, reduced infrastructure costs, lower pressure on water resources, lower carbon footprint and reduced levels of pollution.

Yet, that vision is still some way off.

Committed investors sought

The NZGBC is looking for several BASE pilot projects and for investors who are willing to demonstrate their commitment to a better outcome in the Christchurch rebuild.

'We have just begun to talk to investors and promote the advantages of the BASE tool, but already we have had pretty good interest,' says Juergen. ◀