

## Project Description

### **TRANSFORMER: Adaptive re-use, innovative architecture and civic landscape**

Orion NZ Building and site; 218 & 281R Manchester St, 203 Gloucester and 226 Armagh

Earthquake ravaged but brimming with potential, the Orion site is transformed through a number of strategic moves which draw upon its past while positioning it for the future. Orion is a key driver for the design, embodying the historic association the site has with power supply for the city, as well as being an important community anchor. During the earthquake emergencies Orion provided a source of strength for the city, exemplifying the Canterbury traits of resilience and 'can do' that got us through.

The 15,000m<sup>2</sup> retail/industrial site is owned by Orion New Zealand Ltd, and only 4 of the original 7 buildings in the group have survived the earthquakes – the two heritage MED buildings from the 1930s (category 2 and category 4), the multi-storey Manchester Street carpark, and the large transformer building on Armagh street.

Our proposal is a vision for this historic working landscape, where the gritty realities of power supply are transformed into a contemporary home for Orion and new opportunities for grass roots business in a market setting. Affordable living is developed as a complement to these activities, providing a vibrant neighbourhood for the inner city. Community facilities in the innovative new timber building, Tīrewa, provide support and generate activity on the site.

The design respects the past, embracing the built heritage and honouring the historic hydrology and ecology. At the same time, there is an eye on the future, improving air and water quality, and enhancing wellbeing through fostering community identity. Source-point stormwater treatment in the large rain garden, and planting to reinstate biodiversity and encourage birdlife augments the ecological functioning of the site, and provides an archetype for other city blocks. Historic wells are recognised and revealed, providing water supply and also a highly efficient artesian heat exchange system, which utilises subterranean heat differentials to achieve heating and cooling for all onsite buildings. The wells' enigmatic presence is a constant reminder of the high water table. Also traced across the landscape is the figure of the underground river, with a surface texture of greywacke pebbles referencing the soil composition of the ecological zone and allowing for springs to emerge, giving a palpable sense of the prior condition of the site. Cutting across roads, and arbitrarily encountering the on-site structures, the river's trace asserts the importance of the city's underlayers, and the lessons learned as our re-built city pays closer attention to the ground beneath our feet.

An even more ancient past is also respected on site, celebrating our origins as part of the Gondwanan super-continent. Fossil remains of *Gingko biloba* and the ancestors of *Liriodendron* (Tulip tree) and *Magnolia* have been found in Canterbury, signalling the prior ecology of the ancient landscape of primitive plant species. They are used as street trees, where their large scale is well-suited to the urban environment. These trees connect us not only to our ancient natural past but also to the future of our place in the Asia Pacific region. On site planting references the ecological zones of Houhere and Totara which were found on the site, where Kowhai, Horoeka (Lancewood) and Titoki provide distinctive qualities to three interconnecting squares. The large rain garden uses oi oi reeds to filter and cleanse stormwater, echoing the prior dune band across this land, an ecology also referenced in the use of tight mat-forming ground covers as lawn substitutes within the urban squares.

Pedestrian and visual permeability of the site is developed to allow public access through the block, and connect the green spaces in the city, linking Latimer Square to the Avon River. Complementary developments beyond the immediate site would include a city to sea bike trail along the Avon, an experience which is enhanced by removing traffic from Oxford Terrace and greening. The historic

Poplar Crescent is retained on the south bank of the Avon, and careful management through phased planting ensures its longevity. On the north bank, the 1898 vision of the Christchurch Beautifying Association is re-activated, through planting a garden of native species, amplifying both the ecological and amenity value of the river. Swales and wetlands run parallel to the river banks to intercept stormwater runoff and enhance water quality.

The river and adjacent forest areas were important sources of food and fibre for tangata whenua, including tuna (eels), flax, fruits, and birds. As an echo of this historic association, the site is established as a local market, providing a neighbourhood focus for a diverse community of affordable living, cafés, arts and culture. The new building, Tīrewa, references the historic forest of tōtara whose smashed stumps have been observed in earlier excavations on the site. While the forest inspires the building's materiality, its form is derived from the eel drying racks, tīrewa tuna, with their distinctive lattice construction. The covered market is housed on the ground floor of this innovative round building, with the community facilities on the upper two floors. Two new retail/office structures, one on Gloucester and one on Manchester Street, utilise damage-avoidance designs that highlight timber and its excellent seismic performance. The materials and technology for the timber structures is available locally, Kiwi grown, designed and built. They will be highly sustainable and have the potential to offset the carbon footprint for the rest of the development.

Both the Art Deco heritage buildings have a renaissance, with the four storey 1937 building becoming retail at ground level and apartments on the upper floors, and the two storey 1932 building opened up at the ground level to provide retail market space, and affordable residential on the first floor.

Even the dauntingly functional Manchester Street carpark is given a new lease of life through adaptive re-use. The unusually high stud heights within the carpark building mean that it can be adapted for office and residential use. Timber insertions provide safe, warm and appealing spaces, that will be an economic approach to office space, as well as affordable housing. The change in levels between the two segments of the car park building creates a natural distinction between the office space and the residential area, with a full height atrium drawing in light. Another unusual feature of the existing carpark is the half basement, which is pressed into service as a water storage area with tanks holding grey water for re-circulation, as well as collecting rain water for on site use – an important provision in disaster-conscious times.

The transformation of the site will convert the 15,000m<sup>2</sup> site to the following:

- 6,850m<sup>2</sup> Building footprint
- 8,150m<sup>2</sup> Landscaped area with over 50% green
- 100 Car parking spaces and 125 cycle parks
- 10,820m<sup>2</sup> Office space
- 4,050m<sup>2</sup> Affordable housing
- 4,010m<sup>2</sup> Retail space and 2,540m<sup>2</sup> Indoor market/crafts space
- Estimated cost is \$49.2m

Building developments/refurbishments;

- MED/Southpower 4 storey Art Deco building refurbished for mixed use.
- MED/Southpower 2 storey building refurbished for mixed use.
- Transformer building enhanced with green walls.
- Carpark building converted to mixed retail/market on the lower floors, southern half converted to the new offices for Orion, northern half converted to affordable housing.
- New car park for 100 cars and 50 cycles built at the far end of the site
- New three storey market/community landmark structure in central courtyard, with market on the ground floor and the upper two floors will be reserved for community uses.
- Two new retail/office structures, one on Gloucester and one on Manchester Street, both using timber damage avoidance designs that highlight timber and its seismic performance.