

Open Space/Community Hub Precedent Study

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Te Ara Awataha - Masterplan

Te Kaitaka

Detention capacity of 5 Olympic-sized swimming pools

Area: 15,000 SQM

Anniversary Floods



Wetland



Cross Section



Te Ara Awataha Community Hub Architecture

- Designed in consultation with the community
- Small tenancies for local community uses such as CAB
- Play areas
- Pedestrian Plaza
- Library Building
- Art Exhibition



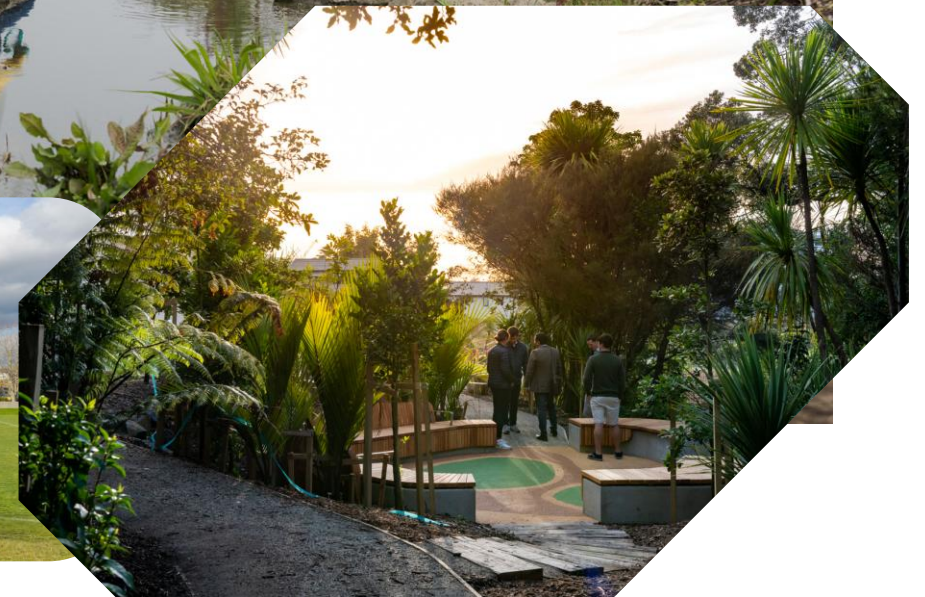
Te Ara Awataha – Ecology & Engagement

- Stream daylighting, restoration of natural riparian buffer, creation of an urban wetland, retrofitting a sports field to a dry detention pond
- Higher tree canopy cover, new swales and plantings
- Consultation with mana whenua
 - Restoring mauri of the puna
 - Improving access to a long lost taonga
 - Ecological habitat creation
 - Birds
 - Insects
 - Eels
 - Designed alongside the community and mana-whenua



Te Ara Awataha Lessons Learned

- 70 vs 16 hectares, leaving more space for flood detention and mixed-use development
- Multitude of uses
- An opportunity for the integration of Te Ao Māori values
- Green corridor – stitching the wider area, town centre, community, sports, and education facilities together
- Opportunity for integration of dry-detention into sports and open fields
- Nature based stormwater management works
- Bigger flood detention needed to address the much larger Wairau catchment



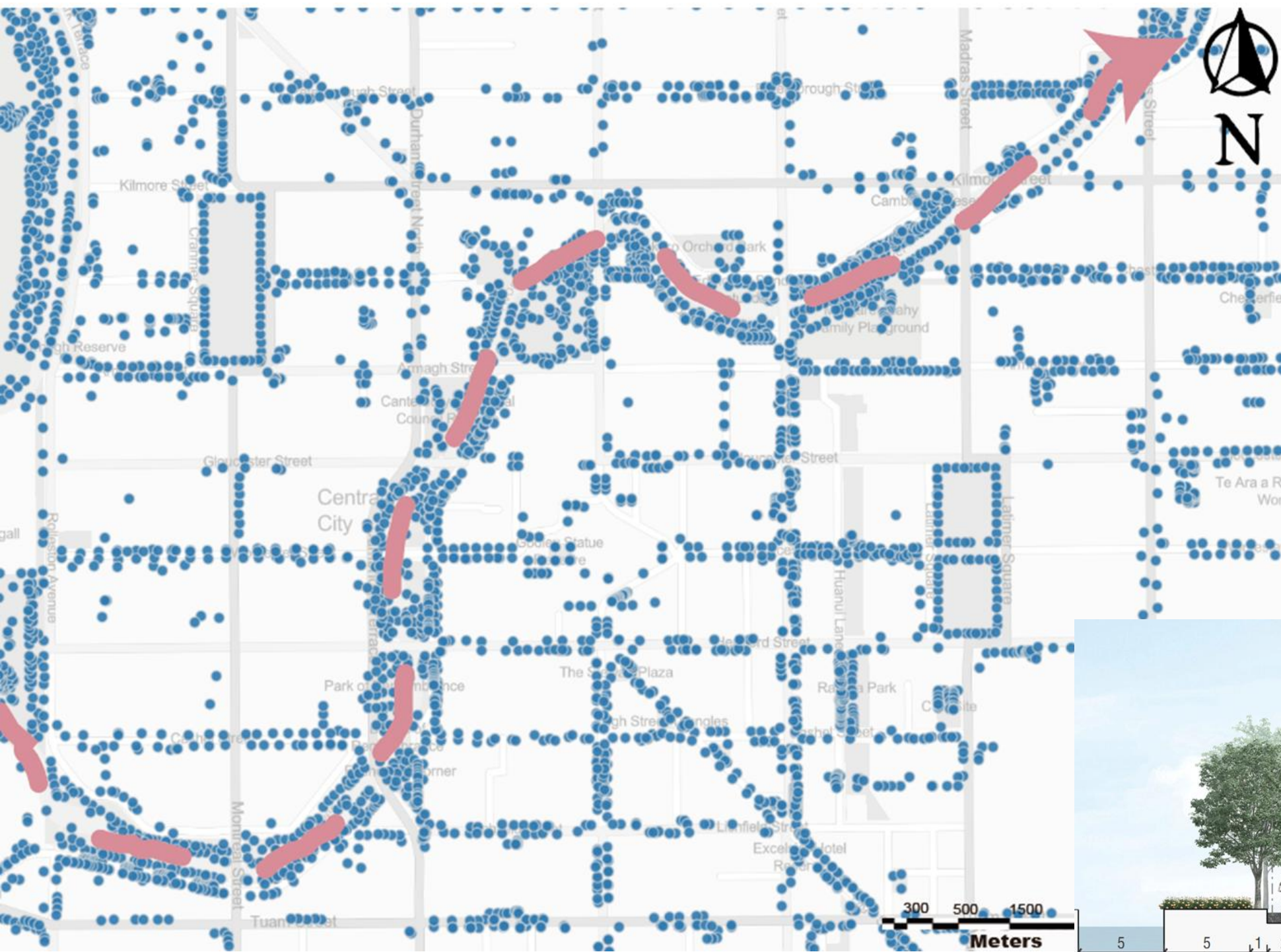


Ōtākaro Avon River Corridor, Background

- A large community hub prior to the earthquake surrounding Avon River from city center to the coast.
- Severely damaged by the 2010 and 2011 earthquakes. 602 hectares become residential redzone.
- Ongoing regeneration project. Building Ōtākaro Avon River Corridor in the future 30 – 50 years.
- Featuring wetland, trails, paths, community spaces and native habitats.

Source: Christchurch City Council

Water Management Integration



From Google Maps



- The design emphasizes “submersible riverbank terraces and a setback waterfront edge”, enhancing accessibility and retention resilience during small- to medium-frequency flooding events. Instead of relying on traditional levees or large-scale sluice and pump systems, the approach prioritizes “flexible edges and flood conveyance corridors.”
- This area does not employ large independent “dry” or “wet” detention basins; rather, it accommodates short-term inundation through terraced riverbanks, submersible platforms, and setback edges, with flood storage primarily dependent on the river cross-section and adjacent inundation zones.
- Along the corridor, rain gardens and Low Impact Development (LID) facilities are integrated to pre-treat surface runoff before it enters the river, forming a continuous purification edge composed of greenbelts, filtration media, and planting basins.

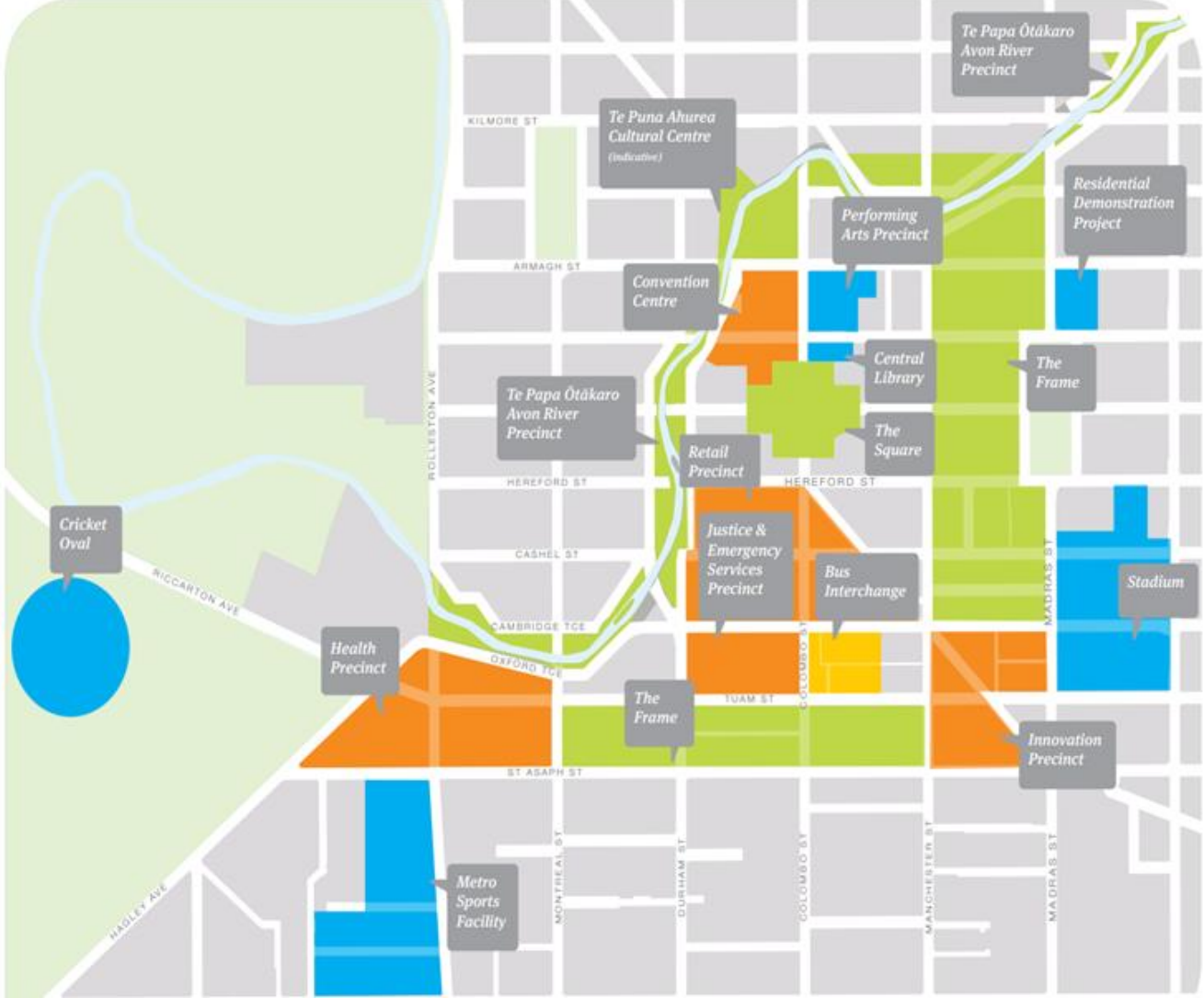
Community Hub Features



Illustration by Zhuoyuan Pan

- The City Promenade connects key facilities such as Christchurch Town Hall, Te Pae Convention Centre, and Christchurch City College to the riverside green corridor through non-motorized pathways, creating a continuous “culture–education–commerce” interface.
- Cafés, exhibition spaces, and community facilities are integrated along the corridor, layering functions of everyday leisure, business activity, and public gatherings.
- Outdoor dining, open-air seating, and riverside steps at building edges strengthen the transition between “indoor–outdoor–riverfront” spaces, encouraging daily use.
- Rain gardens and native planting support stormwater management and ecological restoration, while Ngāi Tahu cultural narratives and Māori public art are embedded into the landscape.

The pedestrian and cycling network is linked to major urban roads and public transport nodes, forming a seamless blue–green corridor that functions both as a leisure route and a daily commuting pathway.



Blueprint Plan for central city



From Google Maps

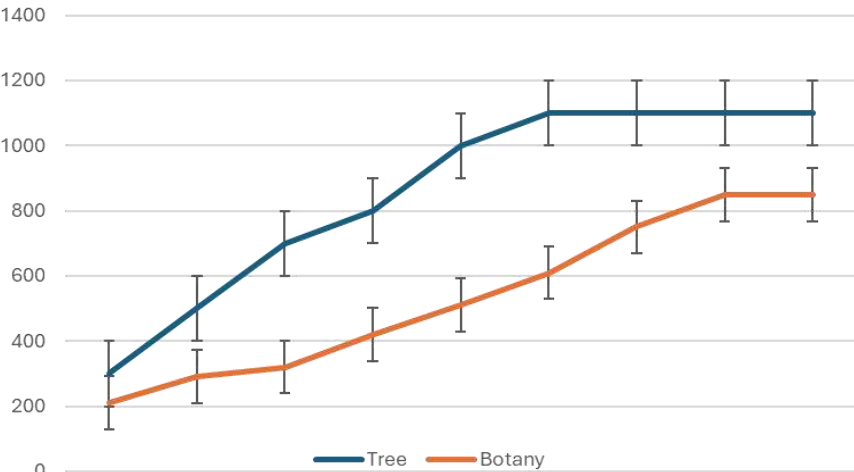
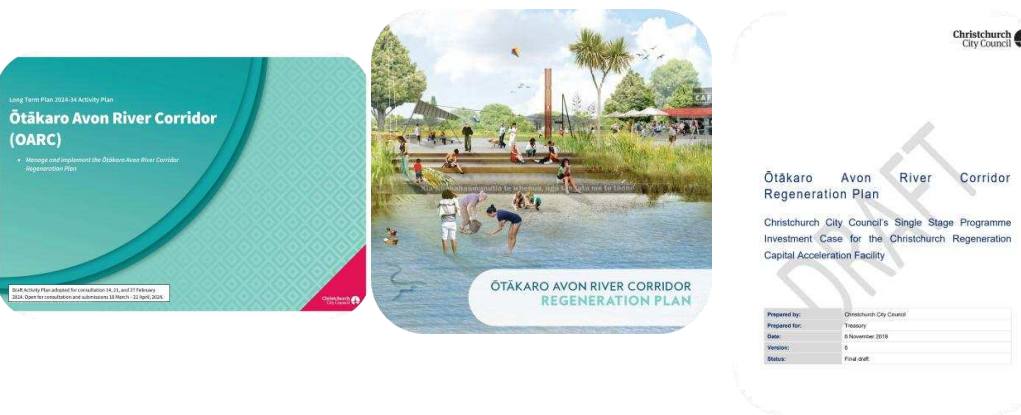


Ecological Enhancement



From Google Maps

- The hard embankments have been removed and replaced with naturalized river channels and flexible riverside terraces, improving both water self-purification and landscape affinity.
- Following the earthquakes, large-scale planting of native species was undertaken, including around 1,700 new trees and more than 100,000 shrubs, with an additional 55,000 native trees planted through community volunteer projects.
- Future goals for the Ōtākaro Avon River Corridor include restoring 300–400 hectares of vegetation and wetlands to form a continuous ecological corridor.
- Shallow waters and wetland patches provide habitats for native fish (such as eels) and bird species, enhancing biodiversity.
- Ecological interpretation boards and cultural markers have been installed to communicate knowledge of water management and ecological restoration, while embedding Ngāi Tahu stories and symbols in the landscape.
- The *Ōtākaro Avon River Corridor Regeneration Plan* and the *LTP 2024–34* explicitly set out ecological restoration targets — including the planting of approximately 50,000 native plants annually, and a requirement that for every tree removed, two are replanted.



From Built Original



From Built Original



From Google Maps



- Drawing on the approach of the City Promenade, flood retention areas are integrated with everyday public activities rather than functioning solely as detention basins. Through the use of “submersible terraces, waterfront platforms, and slow-movement pathways,” flood management and daily use are achieved simultaneously.
- Facilities such as cafés, community rooms, and multipurpose halls are placed along the edges of retention zones, closely linking community functions with blue–green spaces and creating a composite interface of “waterfront–activity nodes–community center.”
- Māori philosophy and collaboration with Mana Whenua are incorporated into ecological restoration and flood governance, for example through *Ki Uta Ki Tai* (the concept of water’s journey from mountains to sea). Interpretive signage, cultural symbols, and ecological education facilities allow residents to engage with hydrological cycles, ecosystems, and cultural narratives in their daily use of the space.
- In the short term, priority can be given to the completion of pathways, ecological restoration, and vegetation recovery, while in the medium to long term, community and cultural facilities can be gradually added, enabling the plan to be implemented in stages and maintaining flexibility.

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