Christchurch Central Recovery Plan

Te Mahere 'Maraka Ōtautahi'

Replacement transport chapter – October 2013

An Accessible City

He Taone Wātea















Published in October 2013 by

Canterbury Earthquake Recovery Authority Christchurch, New Zealand

Contact

Canterbury Earthquake Recovery Authority (CERA) Private Bag 4999, Christchurch 8140 info@cera.govt.nz 0800 7464 2372 www.cera.govt.nz www.ccdu.govt.nz

Citation

Canterbury Earthquake Recovery
Authority (2013). An Accessible City
- Christchurch Central Recovery
Plan: Replacement transport chapter
- October 2013. Christchurch:
Canterbury Earthquake Recovery
Authority.

Imagery Credit

Some imagery sourced from the Christchurch Central Recovery Plan

ISBNs

978-0-478-39745-1 (Print) 978-0-478-39746-8 (Online)



Crown copyright ©

This work is licensed under the Creative Commons Attribution 3.0 New Zealand licence.

Contents

He rārangi upoko

The Christchurch Central Recovery Plan was notified in the New Zealand Gazette on 31 July 2012 and had effect from that date. It contained limited information on transport. It was intended that more detailed work would be done to design a transport system to support the recovery of the central city of Christchurch.

This document was developed by Canterbury Earthquake Recovery Authority (CERA) in partnership with the Christchurch City Council (CCC), Environment Canterbury (ECAN) and the New Zealand Transport Agency (NZTA). Public consultation took place between November 2012 and the beginning of February 2013. This "An Accessible City" is an addendum to the Christchurch Central Recovery Plan and replaces the transport chapter, pages 89 to 94 inclusive. An Accessible City also includes amendments to the transport provisions of Christchurch City Council's District Plan, including replacing the Transport Environments Map.

Part 1:	Car travel16
Accessibility5	Parking and service access18
Transport options5	Wayfinding19
Walking8	Implementation and monitoring 20
Cycling10	Statutory direction to amend District Plan 21
Main Streets12	Part 2: District Plan provisions23
Bus interchange and public transport13	

Central city road use hierarchy

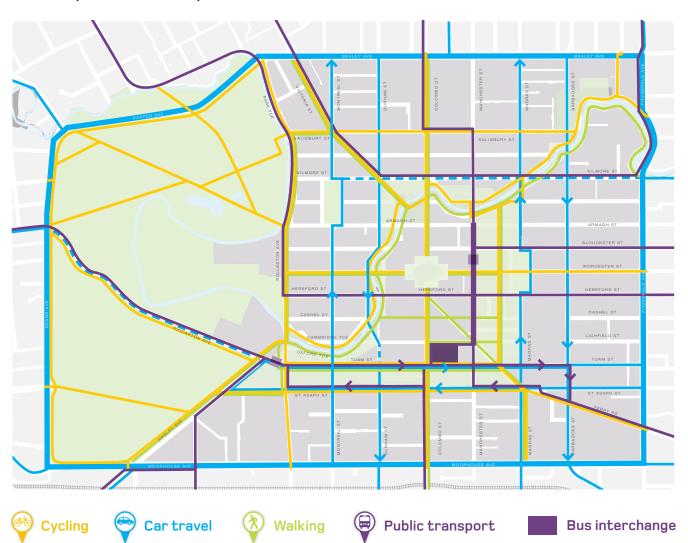


Diagram shows prioritised routes for different travel modes

Accessibility

Te wāteatanga

The buildings, open spaces, streets and facilities within the central city will be safe, accessible and people friendly.

A more accessible and safer built environment will benefit everyone. It will become more accessible not just to people with disabilities, but also to older people, those with young children, and people with temporary mobility issues. A more accessible city will also offer accessible tourism opportunities.

Greater accessibility will occur as public buildings, roads and footpaths are rebuilt to comply with current standards, which require improved accessibility beyond what many older structures have.

All building work must comply with the Building Act 2004 by following the New Zealand Building Code. Under this Code, building and design features must allow people with disabilities to carry out normal activities and processes within them. Compliance with the New Zealand Standard 4121:20-01 Design for Access and Mobility – Buildings and Associated Facilities, cited in the Building Code as being an optional design standard, will be encouraged within the central city.

The Canterbury Earthquake Recovery Authority (CERA) and Christchurch City Council are committed to making central Christchurch a place for everyone by ensuring that accessibility checks are incorporated into master planning and building consent processes at both the design and implementation phases of projects. For example, barrier-free audits are being trialled for anchor projects, and developers and service providers are encouraged to include barrier-free audits at the design stage of their delivery processes.

Safety and personal security are key priorities for all users, and ongoing consultation to develop and implement best practice in accessible transport infrastructure design and management is encouraged.

Transport options

Ngā whiringa

The new central city will be a great place to live, work, play, learn and visit. It will be more attractive and compact, and will offer a wider range of activities.

The central city transport system will provide a range of travel options that are flexible and resilient, able to accommodate projected population growth as well as supporting growth in travel by public transport, walking and cycling.

Opportunities to future-proof the system through the use of new and smart technologies will be explored.

Before the earthquakes, central Christchurch provided over 20 per cent of jobs within the greater Christchurch Central area and there were around 350,000 trips per day to, from and within the central city. The Recovery Plan will support the re-establishment of central Christchurch's function as the primary activity centre for greater Christchurch. Ensuring central Christchurch has reliable, safe, effective and efficient connections to the rest of Christchurch and Canterbury is vital for the recovery of the central city and of the wider region.

The transport system will allow people to travel easily between the central city and other parts of Christchurch Central and to get to key destinations within the central city, whether they are walking, cycling, using public transport or driving. The transport system will also support the creation of people-friendly places within the central city, in particular by making the Core a pedestrian-priority area, reducing traffic speeds and enhancing streetscapes.

Some changes have been made to the road layout to reflect the location of Te Papa Ōtākaro/Avon River Precinct, the Frame and other anchor projects.

Routes will be prioritised for various modes of transport to provide efficient and safe access to and from the central city. This incorporates a road use hierarchy approach that identifies different preferred routes to access the central city depending on how people choose to travel.

- The streets with multiple main bus routes will be prioritised for buses, and other vehicles will be encouraged onto 'distributor' streets.
- Pedestrian facilities will be improved across the central city, and particularly

- in the Core, on Main Streets, within the Frame and within Te Papa Ōtākaro/Avon River Precinct.
- Prioritised cycle routes connected to the wider Christchurch cycle network will provide good access to the central city and the Core. Other streets will provide for cyclists where possible.
- Vehicles travelling into the central city and the Core will be encouraged onto distributor streets that lead off the avenues. Most of the existing oneway streets will be retained to ensure vehicles can access the central city easily. Tuam Street will become a west-east one-way street to replace the Oxford Terrace/Lichfield Street one-way.
- The avenues themselves will be upgraded to improve travel around the central city.
- This road use hierarchy provides a one-network approach to minimise mode conflicts and provide more enjoyable journeys for different types of users.

Central Christchurch speed zones



Maximum speeds

Inner zone - maximum 30km/hr (including main streets)

Outer zone - maximum 50km/hr

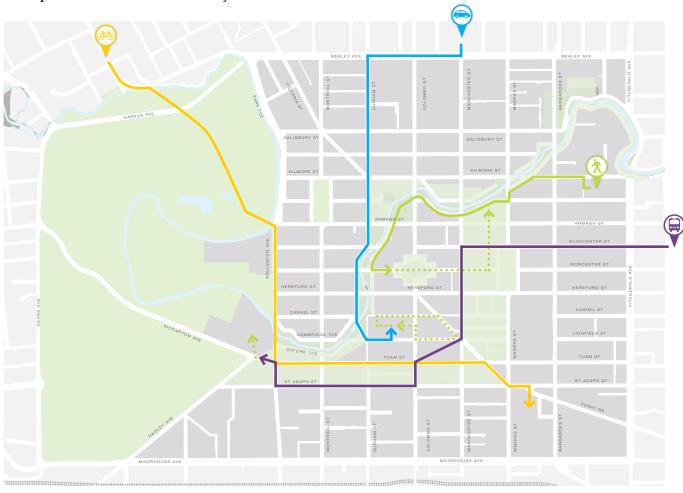
---- Core

Vehicle speeds will be slowed to a maximum of 30km/hr in the Inner Zone. This supports the intended environment of the compact Core and adjacent Frame of central Christchurch. For the rest of the central city network, speed limits will be a maximum of 50km/hr, but some streets may be managed at a slower speed to fit with the surrounding environment, such as in local residential areas. The streets will be designed to support and reinforce the intended speed environments so that the system is self-explaining to users.

As part of road network and streetscape upgrades, the opportunity to implement environmentally sensitive solutions will be taken. Consistent with the development of Te Papa Ōtākaro/Avon River Precinct, exotic plantings within the central city will be supplemented with the use of indigenous trees and other plants.

- Develop design guidelines
- Develop network concept plans
- Develop implementation plan with timing of works
- CERA, CCC
- By December 2013

Transport choices in the central city



I work at the Hospital and use the bus so I don't have to worry about parking. Buses arrive every 10 minutes and drop me at the super stop right outside.

I live and work in the central city. It's a great place to walk, especially along the Avon River in the morning.

Driving in and shopping at the Retail Precinct is easy. It makes shopping in the central city enjoyable.

Central Christchurch is a great place to bike. I take the cycle routes for my morning classes and use the slow streets in the Core on my way home.









Walking

Te haere mā raro

Creating better streets for pedestrians will help attract shoppers, residents and visitors, and so support businesses to re-establish themselves in the central city.

Vehicle speeds within the Inner Zone will be no more than 30km/hr, to ensure pedestrian safety.

The Core will be a pedestrian-friendly area. Some streets may be for pedestrians only and others will be modified as shared spaces where traffic is slowed and pedestrians have priority over other users. Universal design principles and best practice guidelines (such as RTS 14

Guidelines for facilities for blind and visionimpaired pedestrians) should be used to ensure a safe route to and through the area for those with disabilities. The use of non-motorised user safety and barrierfree audits is encouraged during design and ongoing maintenance to ensure that accessible routes are not compromised.

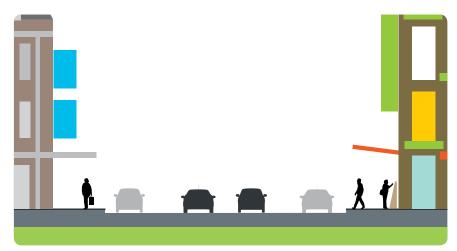
The Retail Precinct in the blocks on either side of Cashel Street will be for pedestrians only. There will be service vehicle access outside busy pedestrian times and from lanes running through the blocks.

Te Papa Ōtākaro/Avon River Precinct and the Frame will provide a high-quality, safer

walking network around the Core and the wider central city. Crime prevention through environmental design principles will be followed in the design of the network.

The east–west streets between the Core and Hagley Park will be improved over time to provide attractive and safe pedestrian routes between these two destinations.

As the central city redevelops, an aim will be to create opportunities to provide attractive, safe through-block connections and north-south laneways in particular. These connections will be required in the Retail Precinct.



Typical central city street - before



Typical slow Core street - after

Key walking links in the central city



All streets will have provisions for pedestrians



 $Potential\ laneways\ within\ the\ Core.\ Images\ courtesy\ Tim\ Church$



Las Ramblas, Barcelona, Spain

Cycling

Te haere mā runga paihikara

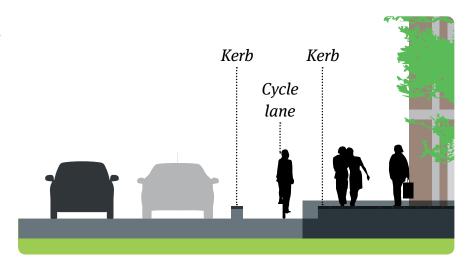
Cycling will be encouraged in the central city. Routes for both commuter and recreational cyclists will offer good connections from the wider city into the central city and the Core.

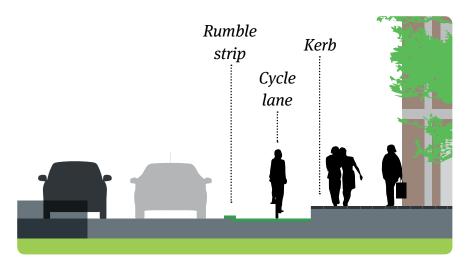
Te Papa Ōtākaro/Avon River Precinct and the Frame will provide an attractive, safe cycling route into the central city and around the edge of the Core. Other key cycle routes are proposed to link with safe crossing points of the river and the avenues.

The slower speed within the Inner Zone will make it safer for cyclists to share space with cars. Key cycling routes will be prioritised for cycling and have separated paths where possible to provide safe and comfortable routes. Prioritised intersections along these routes will have improved safety for cyclists, especially from turning vehicles. Other streets will have improved cycle facilities to address safety issues as necessary.

Cycle routes in Te Papa Ōtākaro/Avon River Precinct and the Frame will be separated in most places from walking routes to ensure the safety of both pedestrians and cyclists.

Cycle parking facilities will be provided at convenient locations. These will be secure, covered where possible, and located at a range of key destinations. Building developers will provide cycle parking in their buildings in line with the District Plan requirements. Secure cycle parking is planned at the new Bus Interchange and the 'super stops' near the Hospital and on Manchester Street, so that people can easily travel by a combination of cycling and public transport.





Possible cycle lane options





Separated cycle lane in Melbourne, Australia.

Key cycling routes in the central city



Other streets will have cycling facilities as appropriate. Connections beyond the avenues to be aligned with CCC cycle plans.





- Develop design guidelines cycling
- CERA, CCC
- By December 2013

Main Streets

Ngā huarahi matua

Victoria Street and Colombo Street south will be significant shopping and business streets. To reflect this function, these streets will be redeveloped as 'Main Streets', with enhanced streetscapes that support retail and mixed-use development.

These streets will be prioritised for walking and cycling and they will be slowed to a maximum of 30km/hr. Main Streets that are public transport routes will contain appropriate public transport priority measures.

Vehicular through-traffic will be discouraged in order to ease congestion, but some short-term, on-street parking will be provided.

Main Streets will have a high standard of landscaping and surface treatment, street furniture and lighting. They will be designed to match the local character of the individual streets and building frontages.



Typical Main Street – before

- Develop network concept plans
- CERA, CCC
- By December 2013





Typical Main Street

Bus interchange and public transport

Te whakawhitinga pahi me ngā waka tūmatanui

Public transport routes and infrastructure will encourage bus travel to and from the central city with capacity for a significant increase in bus use in the coming decades.

Bus Interchange

The Bus Interchange is the anchor of the public transport system known as the 'Metro' system. The Interchange will be designed to accommodate significant growth in bus patronage over time and will be located in the block bounded by Tuam, Colombo, Manchester and Lichfield Streets. This location, with pedestrian links on Lichfield and Colombo Streets, will provide convenient walking connections to the southern half of the Core, the South and East Frames, and the Stadium.

The Bus Interchange will prioritise passenger convenience and comfort. It will integrate attractively with surrounding streets and land uses, taking into account the range of needs and abilities of users. Where possible, complementary uses will be incorporated into the facility design or adjacent areas including retail opportunities, cycle storage facilities and development opportunities above ground-floor level.

Bus movements to, through and away from the Interchange will be made as efficient as possible to minimise conflicts with other users and ensure minimal delay to buses.

The area in and around the Bus Interchange can also cater for inter-city coaches, airport transfers and taxis. In this way it will provide a consolidated transit point for locals and visitors to the city.

Public transport routes

Consistent with the Canterbury Regional Public Transport Plan, public transport routes to the Interchange will be consolidated and will mainly go around the edge of the Core, along Manchester and Tuam/St Asaph Streets. With the exception of Tuam and St Asaph Streets, buses will generally run on two-way roads. This will mean that inbound and outbound stops are close to each other, making the routes simple for people to understand and use.

The routes coming into the central city will provide a high-frequency service along the consolidated routes. Service frequencies on the core network will be

every 10 minutes in peak periods and every 15 minutes at other times. These routes come into the central city from suburban interchanges. Improved facilities in Northlands/Papanui and Riccarton (the highest passenger demand corridors) are required to support the central city public transport recovery package and encourage increased use.

Priority public transport measures will be provided where necessary to ensure reliable bus journeys.

A soft edge between the Core and the East Frame will be created by converting Manchester Street between Armagh and Lichfield Streets into a boulevard. This will separate public transport and other vehicles, provide access to businesses, and ensure a high-quality connection between the Core and the East Frame. In addition to footpaths and on-road cycling on Manchester Street itself, cycle and walking paths will be developed in the Frame

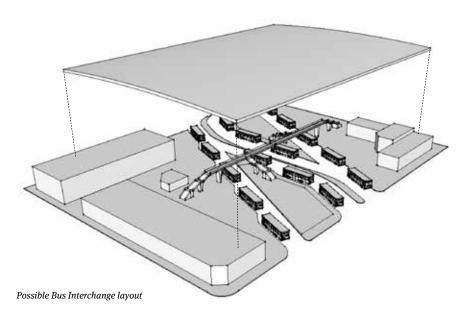
Tuam Street will become a one-way street and will be a major accessway into the city from the west, for vehicles and buses. Tuam Street will be landscaped to provide a high-amenity transition to the South Frame. Cycling and walking routes will run along Tuam Street and along St Asaph Street.

'Super stops'

A high-quality 'super stop' will be provided near the Hospital with good pedestrian access to the Metro Sports Facility, Hospital, Health Precinct and South Frame, as well as to the area south and west of the Core via the Antigua Street footbridge. Another super stop will be provided on Manchester Street (between Gloucester and Worcester Streets), providing a walking link into the northern half of the Core. These super stops will provide passenger waiting facilities sheltered from the weather, quality information, and dedicated cycle parking facilities nearby.



Bus Interchange context axonometric



Inner-city public transport

Residential areas within the avenues, and trips between the Bus Interchange and destinations within the central city, will be covered by the Metro bus routes. These routes provide good coverage of the central city area. Further opportunities to connect key destinations will be investigated to ensure the best possible coverage is offered in the medium- to long-term as the rebuild progresses. Initiatives could include reintroducing shuttle services or enhancing the Metro system. Any inner-city public transport service will be integrated with the city-wide

public transport system. Energy-efficient and environmentally friendly options will be considered.

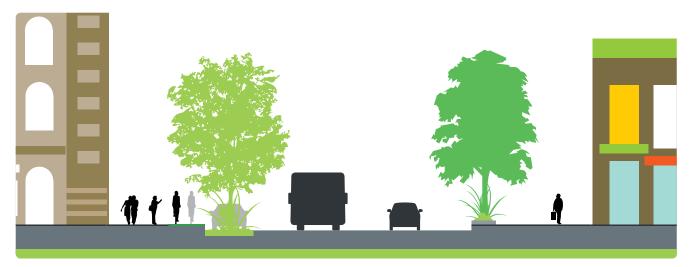
Heritage tram

The Christchurch City Council plans to repair and reintroduce the pre-earthquake heritage tram system as a visitor attraction, as part of the reopening and reconstruction of the central city's key attractions. Some of the destinations on the previously planned extension route have been damaged due to the earthquakes, so the route is being reviewed.

- Bus interchange concept design
- CERA, CCC, ECan, NZTA
- In 2013

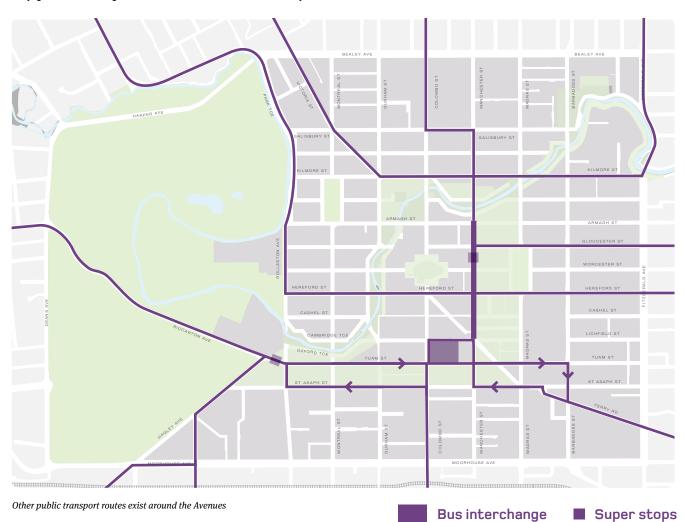


Manchester St – indicative streetscape and bus lanes



Tuam Street - indicative streetscape and cycleway

Key public transport network in the central city



Future public transport options

The public transport system has been designed to be affordable, flexible, adaptable and scalable to accommodate significant growth in public transport usage. This provides people with improved transport choice for a range of future scenarios, which may include higher fuel prices or peak oil supply limitations. Larger buses, more frequent services and new routes provide the next building blocks for future expansion of the system.

In the longer term, a public transport network investigation will be undertaken to confirm the needs and staging for future options. The central city transport system has allowed for possible mass transit requirements and options for future-proofing corridors.

Car travel

Te haere mā runga motokā

A network of distributor streets will provide efficient access for vehicles to destinations within the central city. Vehicle speeds will be managed to support the high-quality redevelopment that is intended for the central city.

Bealey, Fitzgerald, Moorhouse, Harper and Deans Avenues will continue to act as major arterial routes for travel around the central city, with key crossing points for access into the centre. They will be enhanced over time as needed to cater for increased traffic volumes.

Vehicle speeds will be slowed to a maximum of 30km/hr in the Inner Zone. For the rest of the network, speed limits will be at a maximum of 50km/hr, but some streets may be managed at a slower speed to fit with the surrounding environment, such as in local residential areas.

Montreal, Durham/Cambridge, Madras, Barbadoes, St Asaph, Tuam and Kilmore Streets will be the main distributor streets. They will provide the key vehicle access routes into the central city to service the majority of trips to the Core on a daily basis.

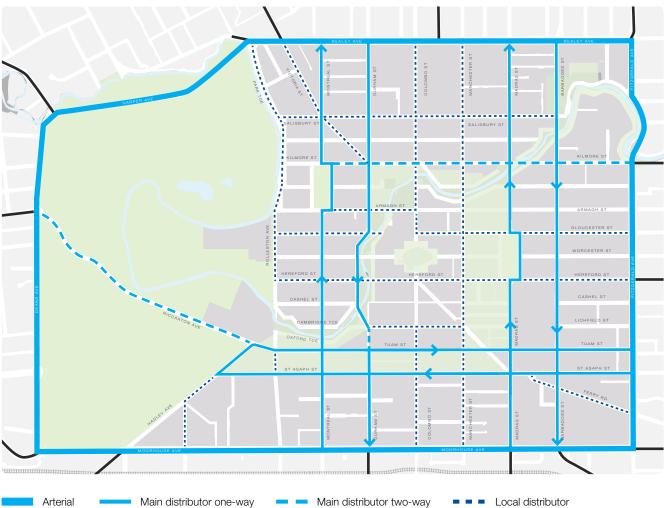
The pre-earthquake Salisbury–Kilmore one-way pair carried less traffic than the other one-way streets and run through predominantly residential areas. They will be converted to two-way streets;





Indicative enhanced one-way distributor - Durham St / Cambridge Tce near the Ōtākaro/Avon River

Distributor streets - preferred vehicle routes



Kilmore Street will continue to be a main distributor street but through-trips will be encouraged onto Fitzgerald and Bealey Avenues.

The other one-way streets will be retained but enhanced, as appropriate, with improved streetscapes. These enhanced one-way main distributor streets will provide the required street amenity to suit the local character and intended development while still allowing safe and efficient vehicle movement.

The locations of Te Papa Ōtākaro/Avon River Precinct, the Stadium and the Bus

Interchange mean that Oxford Terrace/ Lichfield Street will cease to function as a one-way route. Tuam Street will therefore become an eastbound one-way street. Local distributor streets are identified as the preferred access routes to parking precincts or as public transport routes. The remaining local streets are primarily for local property and business access.

- Develop implementation plan identifying timing and delivery mechanism
- CERA, CCC, ECan, NZTA
- By December 2013

Parking and service access

Ngā tūranga waka me ngā ratonga

Well-located car parking that is readily accessible off distributor streets, but does not dominate city streets, is essential to an accessible city.

Many pre-earthquake public off-street parking facilities have been destroyed. On-street parking will also be reduced due to some anchor projects, cycleways, streetscape enhancements, and urban design improvements.

Car parking within individual developments can be provided for (but is not compulsory) in the Central City Business Zone: up to 50 per cent of the gross leasable floor area of the premises may be used for this activity. A maximum has been prescribed to manage the number of vehicles overall within the zone consistent with the pedestrian-friendly focus, but not to the extent that economic recovery is compromised.

The amount of short-term parking available will return to pre-earthquake levels. The majority of parking required to meet the needs of businesses, shoppers and commuters will continue to be met by commercial developments. On-street parking within the Core will be prioritised for disabled and short stay parking, service

vehicles and taxis. New off-street public parking facilities for short- to medium-term visitors will be located to serve key precincts and destinations. The provision of well-located, on-street and off-street, medium-term parking that accommodates custom-designed vehicles for people with disabilities will be encouraged.

Greater utilisation of public visitor parking will be encouraged through shared use, time-of-day management and variable pricing. Parking provided for anchor projects may be shared for general purposes when not required for events.

The off-street public visitor parking buildings will be located to provide safe and easy access from the local distributor streets and will either be on the perimeter of or outside the Core. These buildings will be designed to integrate with their surrounds, with a preference for mid-block sites and for parking buildings to provide for other uses, with active ground-floor frontages. For these reasons, parking buildings will generally be smaller than they were before the earthquakes. The timing of their development, and their exact location, will match demand and development in the central city. Temporary demountable parking facilities could be considered to

provide a flexible response to parking needs as the city rebuilds.

Opportunities to future-proof the system, for example by providing charging facilities for electric vehicles, will be explored.

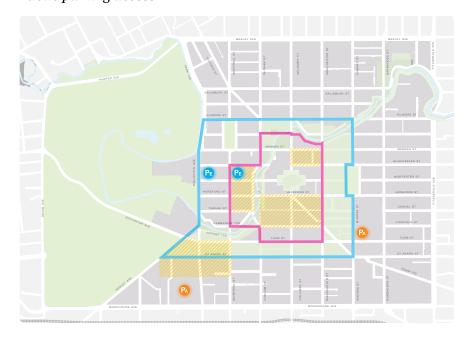
Service vehicles and emergency services

Within the Core and Frame, dedicated service lanes built for service vehicles will be encouraged as part of commercial developments, where possible. Deliveries will be managed to minimise on-street queuing and other negative effects. Service vehicle access through pedestrian priority streets and off main distributor streets will be discouraged during shopping hours and peak travel times. Emergency vehicle access will be maintained at all times.

Taxi facilities and coach drop-off areas

Appropriate taxi facilities will be provided as part of the development of key precincts and anchor projects within the central city. Coach drop-off areas will be encouraged within key developments. Coach layover areas will be identified where they can share public spaces and minimise effects on the surrounding area.

Public parking access



Implementation

- Develop parking management plan
- CERA, CCC
- By December 2013

Core - On street parking, prioritised for disabled, delivery, drop off and short stay.

Inner zone - On street parking, short stay limits (some resident exemptions)

Key Destination Areas - Public off-street, visitor parking to be determined

Outer Zone - On street parking, some longer-term public off street visitor parking to be determined.



Pa - Anchor Project parking



 $\textbf{P}_{\textbf{E}}$ - Existing public parking retained

Wayfinding

Ngā tohutohu

New bilingual signage (English and Te Reo Māori), wayfinding systems, interpretation mapping and information about the car parks available will be developed to help motorists, cyclists and pedestrians find their way around the central city.



Indicative wayfinding signage

Wayfinding will provide:

- a clear hierarchy of street signage integrated with the streetscape character to signal the role of the streets within the network
- signage on walking and cycling routes
- driver information and car parking signage so drivers can locate parking efficiently, reducing circulation trips and unnecessary traffic pressure on inappropriate routes
- information, routes and signage that recognise and reveal tangata whenua associations, history and sites of significance
- signage with directions and information for visitors so that people unfamiliar with the city can easily locate Christchurch's key visitor attractions, whether they are driving, cycling or walking

- information that is relevant for people with disabilities, such as information on the location of disabled parking spaces
- directional signage to public transport facilities such as the Bus Interchange and 'super stops'
- strategic traffic signage on the approaches to and along the avenues to encourage traffic heading to the central city to do so on the most appropriate routes, and traffic not travelling to the central city to use alternative strategic routes around it
- new and smart technologies to complement street signage and aid transport operations and management.

Implementation and monitoring

Te whakatinanatanga me te aroturuki

CERA, Christchurch City Council (CCC), Environment Canterbury (ECan) and the New Zealand Transport Agency (NZTA) will work together to give effect to the proposals in this transport chapter but further detail will be developed as the planning and design for the city continue.

The changes proposed in this document will be implemented over time, and will be coordinated with the development of central city anchor projects, the SCIRT rebuild programme, and CCC's capital works and transitional city programmes. An **implementation plan** will be developed and will detail the timing of the various projects and who will be involved in delivering them.

Progress with implementing these changes will be reported through the transport monitoring framework as part of the Recovery Strategy Monitoring and Reporting Programme.

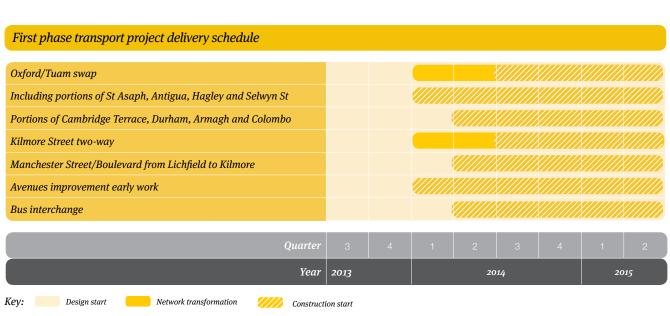
A consistent approach is important to ensure the various elements of the transport network operate well together. A key first step is to collate and develop **design guidelines** for the functional requirements for movement, barrier-free access, pathways, cycling, road widths, speed management, service delivery, emergency response and streetscapes.

A **parking management plan** will be developed by CERA and CCC to ensure that parking needs match the recovery programme, and support the objectives of An Accessible City.

Network concept plans will be developed for all areas within the central city. They will include road use hierarchy maps that show mode priority by time of day, and network layout maps that show the form and management of the network. These Network concept plans will ensure the best possible integration between land use, transport, adjacent environments and the individual projects and developments that will arise during the rebuilding of the central city.

The transport partners are also working on a wider public transport package. This will include suburban interchanges in Northlands/Papanui and Riccarton, and will consider bus priority measures on Riccarton Road to connect with the central city.

Implementation task	Responsible	Partners	By when
Design Guidelines	CCDU and CCC	NZTA, ECan	Working document, December 2013
Parking management plan	CCC and CERA	NZTA	Working document, December 2013
Network concept plans showing road use hierarchy by time of day and network layout concepts	CERA	CCC, NZTA, ECan	Working documents, December 2013
Implementation Plan, including timing and delivery mechanism alignment	CERA	CCC, NZTA, ECan, SCIRT	December 2013
Transport monitoring framework	CERA	CCC, ECan, NZTA	Working document, December 2013



Statutory direction to amend District Plan

Tohutohu ā ture ki te whakatika Te Mahere-ā-Rohe

Once Gazetted, this "An Accessible City" has effect as an addendum to the Christchurch Central Recovery Plan (CCRP). The CCRP is amended by the removal of the transport chapter entitle An Accessible City being pages 89 to 94 inclusive.

In accordance with section 24(1)(a) and (b), and section 24(2) of the Canterbury Earthquake Recovery Act, Christchurch City Council is directed to amend its District Plan as set out in Part 2 of this "An Accessible City" addendum to the CCRP. These changes make further amendments to the Transport Provisions which were identified in the Appendix of the CCRP, including superceding Map 4 "Central City: Transport Environments" with the "Road classification and transport zones" map in Part 2 of this document.

Christchurch City Council shall make these amendments as soon as practicable but not later than two weeks after the Gazettal of this amendment to the Christchurch Central Recovery Plan.