

INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE AGENDA

THURSDAY 2 APRIL 2015

AT 8.30AM

IN COMMITTEE ROOM 1, CIVIC OFFICES, 53 HEREFORD STREET

Committee: Councillor Phil Clearwater (Chairperson)
Councillors Pauline Cotter (Deputy Chairperson), Vicki Buck, David East and Tim Scandrett

Principal Advisers

Chief Operating Officer Jane Parfitt Telephone: 941-6798	Director, Council Facilities and Infrastructure David Adamson Telephone: 941-8149
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- PART A - MATTERS REQUIRING A COUNCIL DECISION
- PART B - REPORTS FOR INFORMATION
- PART C - DELEGATED DECISIONS

INDEX

ITEM NO.	DESCRIPTION	PAGE NO.
PART C 1.	APOLOGIES	1
PART B 2.	DECLARATION OF INTEREST	1
PART B 3.	DEPUTATIONS BY APPOINTMENT	1
PART B 4.	VICTORIA STREET TRAFFIC ISSUES	1
PART C 5.	RICCARTON ROAD BUS PRIORITY PROJECT - CONSULTATION	3
PART A AND B 6.	AN ACCESSIBLE CITY - FIRST PHASE TRANSPORT PROJECTS: HOSPITAL CORNER STAGE 2 (FINAL LAYOUT), DURHAM STREET/CAMBRIDGE TERRACE (SECTIONS) AND MANCHESTER STREET (SECTIONS)	60
PART A 7.	PUBLIC REALM NETWORK PLAN (STREETS AND SPACES DESIGN GUIDE)	84
PART A 8.	DRAFT CHRISTCHURCH CENTRAL PARKING PLAN	288
PART B 9.	INFRASTRUCTURE REBUILD MONTHLY UPDATE	334
PART B 10.	WASTE AND ENVIRONMENTAL MANAGEMENT TEAM (WEMT) QUARTERLY REPORT	352
PART B 11.	REPORT BY THE CHAIRPERSON OF THE LAND DRAINAGE RECOVERY PROGRAMME WORKING GROUP	382

1. APOLOGIES

An apology has been received from Councillor Scandrett.

2. DECLARATION OF INTEREST

Members are reminded of the need to be vigilant to stand aside from decision making when a conflict arises between their role as a member and any private or other external interest they might have.

3. DEPUTATIONS BY APPOINTMENT

- 3.1 Stu Waddel, Victoria Neighbourhood Association, will address the Committee regarding safe access for pedestrians crossing Victoria Street.
- 3.2 Sue Guthrie, Chairperson of the Victoria Street Scape Committee, will address the Committee regarding traffic light phases in Victoria Street and the new electronic billboard proposed for the north end of the street.

4. VICTORIA STREET TRAFFIC ISSUES

Staff will brief the Committee on this topic.

INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE - 2. 4. 2015

5. RICcarton ROAD BUS PRIORITY PROJECT - CONSULTATION

		Contact	Contact Details
Executive Leadership Team Member responsible:	Chief Operations Officer, Operations Group	N	
Officer responsible:	Unit Manager,	N	
Author:	Philip Basher Transport Policy Engineer – OP Assets & Network	Y	941 8605

1. PURPOSE AND ORIGIN OF REPORT

- 1.1 This report outlines for the Infrastructure, Transport and Environment Committee the proposal to consult on the on-street measures for bus priority on Riccarton Road between Deans Avenue and Matipo Street and seeks the Committee's approval of the consultation plan.
- 1.2 The 20 March 2014 Meeting of the Infrastructure, Transport and Environmental Committee resolved to:
 - 1.2.1 Request that staff investigate bus priority measures along Riccarton Road.
- 1.3 A confidential seminar was held on 19 December 2014 to enable staff to engage with the elected members of the Infrastructure, Transport and Environment Committee, Riccarton/Wigram and Hagley/Ferrymead Community Boards on the bus priority measures proposed for Riccarton Road. The elected members were advised that both Community Boards and the Committee would have the opportunity to consider the proposed consultation through reports.
- 1.4 In order to clarify the decision making process a report on 13 November 2014 (**Attachment 1**) the Council:
 - 1.4.1 Confirms that the Riccarton Public Transport (PT) Hub waiting lounge, super stop and associated street works, and the Riccarton Public Transport Priority project are both issues of metropolitan significance within the meaning of the Council's delegations register.
 - 1.4.2 Delegates the decision on the final design version for the Riccarton PT Priority project and associated street works to the Infrastructure, Transport and Environment Committee because of tight time-lines.

2. EXECUTIVE SUMMARY

- 2.1 As the Riccarton Road Bus Priority Project is considered to be of Metropolitan significance, the Infrastructure, Transport and Environment Committee has been delegated the authority to make the final decision on the proposal for the community and stakeholder consultation. The Community Board recommendations (Riccarton/Wigram and Hagley/Ferrymead) are included at the end of this report, and the relevant Chairperson's Reports from the Community Boards are at **Attachments 9 and 10**.
- 2.2 The Community Boards will advise the Committee formally for Stage 1 Deans Avenue to Matipo Street bus priority measures through Part A reports. They will include the section between Deans Avenue and Clarence Street (both Community Boards) and the Riccarton/Wigram Community Board for their preferred option for Riccarton Town Centre (Clarence Street to Matipo Street).

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3. BACKGROUND

- 3.1 The proposed bus priority project on Riccarton Road (between Matipo Street and Deans Avenue) is an integral part of the city's overall public transport network and essential for the recovery of the network post earthquake. Riccarton Road is the busiest bus corridor in the city and this status is endorsed by recent policies and strategies:
- 3.1.1 Regional Passenger Transport Plan (RPTP), Environment Canterbury (ECan) 2014 – 2024. The Regional Public Transport Plan introduces a new operational model for the city's public transport network, based on a "hubs and spokes" approach. The system relies on the establishment of a series of suburban interchanges where feeder services will link passengers on to the core high frequency service routes.
 - 3.1.2 The Christchurch Transport Strategic Plan (CTSP), Christchurch City Council (CCC) 2012 – 2042. The CTSP confirms support for the principles of the RPTP and the new "hubs and spokes" model, and identifies Riccarton Road as a key public transport corridor.
 - 3.1.3 Greater Christchurch Transport Statement (GCTS) UDS Partnership, 2012. The GCTS identifies public transport and priorities measures as one of the top priorities for recovery and future growth of the city.
 - 3.1.4 Three Year Plan (TYP); Christchurch City Council 2013/16 plus the Crown/Council funding agreement covers the anchor projects in the central city, one of which is the Public Transport interchange and directly associated improvements to Metro services outside the central city which includes the Riccarton Road Bus Priority.
 - 3.1.5 An Accessible City (the Canterbury Earthquake Recovery Authority) 2013. The transport chapter of the Central Christchurch Recovery Plan highlights the importance of the core public transport routes coming into the city from the north and west. Riccarton (Westfield) is a key hub for bringing in passengers from the western suburbs and the university to meet the core routes to and through the central city as well as transfers onto the orbital services. Ten of the city's core bus routes pass through this interchange.
- 3.2 The Council's Three Year Plan (TYP) for 2013-16 and the Crown/Council funding agreement identifies funding for the Riccarton Road bus priority measures as integral to the success of the central city public transport interchange project.
- 3.3 The bus priority and associated traffic measures outlined in this report have been designed and modelled based on the principles of the Riccarton Road Corridor Study. The study identified measures for the Riccarton Road corridor that will improve reliability and reduce journey times for public transport.

4. COMMENT

Bus Priority Scheme

- 4.1 A number of scheme options have been considered based on previous studies including the Riccarton Corridor study. This has led staff to deduce that the proposed Riccarton Road Bus Priority scheme can be divided into two key components:
- 4.1.1 Deans Avenue – Clarence Street/Straven Road
 - 4.1.2 Riccarton Town Centre – Clarence Street/ Straven Road – Matipo Street.

Deans Avenue – Clarence Street/Straven Road

- 4.2 This section of the Riccarton Road Corridor is considered more suitable for conventional bus priority and other traffic improvement measures (refer to **Attachment 6**) which can be summarised as:

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- 4.2.1 Deans Avenue/Riccarton Road/Riccarton Avenue intersection to be signalised with bus lanes on the eastern and western approaches. The bus lanes on the approach to the intersection are to operate as full time bus lanes.
- 4.2.2 Part time (both peak hours 0700 – 0900 hours and 1500 – 1800 hours) bus lanes for westbound buses between the Deans Avenue/Riccarton Road/Riccarton Avenue and the Riccarton Road/Picton Avenue intersection.
- 4.2.3 Full time bus lane on the westbound approach to the Clarence Street/Straven Road intersection from the Riccarton Road/Picton Avenue intersection.
- 4.2.4 Most on-street parking will be maintained although some car parks will not be available during the operational hours of the bus lanes. In the sections of permanent bus lane, four car parks will be permanently removed for the eastbound lane on the approach to Deans Avenue, there are no proposals to remove parking for the permanent westbound bus lane on Riccarton Avenue, however 15 car parks are removed for the intersection works, and eight car parks will be permanently removed for the westbound bus lane on the approach to Clarence Street.
- 4.2.5 Introduce short-term parking on Bartlett Street during the operational hours of the bus lanes for the local retail facilities.
- 4.2.6 An early start is proposed for westbound buses on Riccarton Road at the Riccarton Road/Clarence Street intersection to get ahead of general traffic.
- 4.2.7 It is proposed to remove the zebra crossing to the east of Mona Vale Avenue, and be replaced with a signal controlled pedestrian crossing on the western approach to the rail crossing. This will be future proofed to accommodate cyclists using the proposed Northern Line Major Cycleway Route that will cross Riccarton Road at this point.

Riccarton Town Centre

- 4.3 This section of the Riccarton Road corridor requires measures that reflects the unique character of this area. There are three options:
 - 4.3.1 Option 1 – Bus Friendly with peak bus lanes on both sides east and west bound between Clarence/Straven and Matipo Street; **Attachment 2** which shows the likely street profile. The bus lanes would operate between 0700 – 0900 hours and 1500 – 1800 hours on both sides of the road.
 - 4.3.2 Option 2 – Pedestrian Friendly with streetscape improvements to remove side friction and assist pedestrian movements; the plans are found in **Attachment 7**. There would be no bus lanes, minimal on-street parking and restricted turns into and out of Riccarton Road from Kauri Street and Division Street as approved in the bus lounge design (**Attachment 3** for the possible street profile). Four car parks would be retained outside 105 and 107 Riccarton Road. This option allows for a tree lined median and on-road cycle lanes.
 - 4.3.3 Option 3 – Hybrid incorporating elements from options one and two seeking to improve the streetscape and assist the movement of buses which is shown in profile in **Attachment 4**. The plans for this option are given in **Attachment 8**.
- 4.4 Traffic modelling has been undertaken to assess the option, and the scheme has been through the safety audit process for the scheme stage, and will continue through the process as schemes evolve into detailed design. In addition table assessment the impact of each option is attached to this report (**Attachment 5**).

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- 4.5 Staff believe that options two (Pedestrian Friendly) and three (Hybrid) should go out to consultation with the public (**Attachment 5**) because they would address the main objectives of improving the pedestrian environment and assisting in improving bus movement through the area. Option 1 would not improve the pedestrian environment in the Riccarton Town Centre area.

Consultation plan summary

- 4.6 The objectives for the consultation and engagement process are:
- 4.6.1 To ensure all relevant stakeholders are informed at appropriate stages of the project of its purpose, aims and timeframes.
 - 4.6.2 To provide an appropriate process for feedback/discussion and a contact point for any input or concerns.
 - 4.6.3 To ensure all submitters are aware of the process, procedure and parameters around the decision-making process.
 - 4.6.4 To advise submitters of the final concept and how consultation feedback has influenced the plan.
 - 4.6.5 To inform submitters of the final decision if it varies significantly from the final proposal.

Consultation scope

- 4.7 Consultation will be carried out within the following framework:
- 4.7.1 Bus Priority is needed on Riccarton Road to meet ECan operational requirements for its new greater Christchurch bus network.
 - 4.7.2 Bus Priority on Riccarton Road is also required to ensure the successful operation of the new central City Exchange and the associated super stops on Manchester Street and at the Hospital Corner.
 - 4.7.3 The passenger lounge and associated bus stops have been confirmed as part of an earlier consultation and decision making process.
 - 4.7.4 The proposal is restricted to the legal road boundaries.

Consultation plan

- 4.8 The project team is working together with ECan staff to develop an integrated plan for consultation and communications. The stakeholder list will include businesses and property owners, bus users, residents, and key interested organisations and community. The consultation plan includes:
- 4.8.1 Contacting key stakeholders such as business leaders and community groups ahead of the formal consultation period for preliminary engagement and information sharing.
 - 4.8.2 Community consultation will be via a Council Have Your Say on its web site and leaflet with either a paper or electronic feedback form. It will also be supported by posters and other publicity and educational material.
 - 4.8.3 Leaflets and fliers will be hand-delivered to adjacent residents and businesses, and mailed to property owners and the wider area and stakeholder list.

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- 4.8.4 The planned four week consultation period starting in April 2015 will include three drop-in information sessions, two of which will target different sections of the route (Deans to Clarence, Clarence to Matipo), while welcoming general interest, feedback and questions. The third drop in session will cover the whole route.
- 4.8.5 The consultation period allows for additional meetings with stakeholders and community groups, email, and phone calls.
- 4.8.6 Submitters will be sent the final plan, a summary of consultation feedback and response including changes made as a result of consultation, and details of the meeting ahead of the final decision.

Community Board input to consultation

- 4.9 A joint seminar with the Riccarton/Wigram and Hagley/Ferrymead Community Boards and the Infrastructure, Transport and Environment Committee was held on 19 December 2014 to introduce the project before a preferred option was developed by the project team.
- 4.10 The issues raised and project team responses were then circulated ahead of a seminar with Riccarton/Wigram Community Board and the Infrastructure, Transport and Environment committee on 18 February 2015, and a separate seminar for the Hagley/Ferrymead Community Board on 16 March. The purpose of the seminars was to gain feedback on the three options and to explain the preferred option, before the report requesting approval to consult was finalised.
- 4.11 Formal Riccarton/Wigram and Hagley/Ferrymead Community Board input to the plan to consult will be via recommendations to the Infrastructure Transport and Environment Committee, which will make the decision. Riccarton/Wigram Community Board will consider this issue on 17 March and the Hagley/Ferrymead Community Board on 18 March.

Communications

- 4.12 Council and Environment Canterbury communications staff are working together on key messages, frequently asked questions, online material and social media posts that align with bus system milestones. The joint agency communication aims are to:
 - 4.12.1 Focus public understanding of and support for the benefits of bus priority.
 - 4.12.2 Inform residents/property/business owners, commuters and the general public and manage their queries and expectations.
 - 4.12.3 Engage with key stakeholders from the outset to explain how bus priority fits into the city-wide network changes and the benefits.
 - 4.12.4 Brief key people and agencies, to manage their expectations and ensure they have the chance to express their views.
 - 4.12.5 Prepare public information e.g. messaging, media release, Questions and Answers (Q & As).
 - 4.12.6 Partner on project communications.

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Riccarton Passenger Waiting Lounge (Northern kerb)

4.13 Staff are actively seeking a passenger waiting lounge site on the north side of Riccarton Road and may shortly reach a lease agreement on a suitable property. This site is close to the approved lounge at 123/125 Riccarton Road, and if the lease is agreed before the Committee meeting, staff will conduct a limited stakeholder consultation in conjunction with the proposed bus priority exercise.

5. FINANCIAL IMPLICATIONS

5.1 Funding has already been allocated for the Riccarton Road Public Transport project as part of the Crown/Council Funding Agreement and is included the Annual Plan for 2014 – 2015.

6. STAFF RECOMMENDATION

It is recommended that the Infrastructure, Transport and Environment Committee:

6.1 Instruct staff to proceed with community and stakeholder consultation on the proposed Riccarton Road bus priority proposals as outlined in paragraphs 4.1, 4.2 and 4.3 which includes Option 2 (Pedestrian Friendly) and Option 3 (Hybrid) for the Riccarton Town Centre segment of this project.

6.2 Instruct staff following the conclusion of consultation process that the analysis of the outcomes and responses and any amendments to the concept designs shall be reported to the Riccarton/Wigram Community Board and Hagley/Ferrymead Community Board. The Community Board recommendations will then be passed onto the Infrastructure, Transport and Environment Committee for consideration in its decision making.

6.3 Instruct staff to arrange for a confidential joint seminar of the Infrastructure, Transport and Environment Committee, the Riccarton/Wigram Community Board and the Hagley/Ferrymead Community Board to review the outcomes and responses and any amendments to the concept designs. This seminar will take place before the Community Boards' and the Infrastructure, Transport and Environment Committee's meetings.

7. RICCARTON/WIGRAM COMMUNITY BOARD CONSIDERATION

In its deliberations, staff members in attendance spoke to the accompanying report and responded to questions from members.

Members commented on the increased presence of heavy vehicles using Riccarton Road as a through route and there was a suggestion made of applying a slower speed limit through the main commercial section of Riccarton Road.

Also raised for inclusion in the consultation material, was to show trees planted in the central median.

At the Board meeting, it was **agreed** that to provide clarity, that Option Two and Option Three be renamed Option A and Option B respectively.

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8. **RICCARTON/WIGRAM COMMUNITY BOARD RECOMMENDATION**

The Board **decided** to recommend to the Infrastructure, Transport and Environment Committee that the staff recommendation as detailed below be adopted:

That the Infrastructure, Transport and Environment Committee:

- 6.1 Instruct staff to proceed with community and stakeholder consultation on the proposed Riccarton Road bus priority proposals as outlined in paragraphs 4.1, 4.2 and 4.3 which includes Option Two (Pedestrian Friendly) and Option Three (Hybrid) for the Riccarton Town Centre segment of this project in respect of the area of interest for the Riccarton/Wigram Community Board, i.e. Riccarton Road between the Deans Avenue intersection and Matipo Street.
- 6.2 Instruct staff following the conclusion of the consultation process that the analysis of the outcomes and responses and any amendments to the concept designs shall be reported to the Riccarton/Wigram Community Board by way of a Part A report. The Community Board recommendations will then pass on to the Infrastructure, Transport and Environment Committee for consideration.

(Note: the full Riccarton/Wigram Community Board Chairperson's Report on this issue can be found at **Attachment 9**.)

9. **HAGLEY/FERRYMEAD COMMUNITY BOARD RECOMMENDATION**

The Board **decided** to recommend to the Infrastructure, Transport and Environment Committee that the staff recommendation as detailed below be adopted:

That the Infrastructure, Transport and Environment Committee:

- 6.1 Instruct staff to proceed with community and stakeholder consultation on the proposed Riccarton Road bus priority proposals as outlined in paragraph 4.2 in respect of the area of interest for the Hagley/Ferrymead Community Board, the Riccarton Avenue approaches and the Deans Avenue/Riccarton Road and Avenue intersection.
- 6.2 Instruct staff following the conclusion of the consultation process that the analysis of the outcomes and responses and any amendments to the concept designs shall be reported to the Hagley/Ferrymead Community Board by a Part A report. The Community Board recommendations will then pass onto the Infrastructure, Transport and Environment Committee for consideration.

(Note: the full Hagley/Ferrymead Community Board Chairperson's Report on this issue can be found at **Attachment 10**.)

RICCARTON ROAD CORRIDOR PUBLIC TRANSPORT PRIORITY AND HUB DECISION MAKING DELEGATION

		Contact	Contact Details
Executive Leadership Team Member responsible:	Chief Operating Officer, Operations Group	N	
Officer responsible:	Unit Manager, Assets and Networks	N	
Author:	Philip Basher, Transport Policy Engineer	Y	DDI 941 8605

1. PURPOSE AND ORIGIN OF REPORT

1.1 This report seeks to approve the Metropolitan Significance status of the Riccarton Public Transport (PT) Hub super stop and waiting lounge and the Riccarton Road Corridor PT bus priority projects. This report is also seeking to confirm that the decision making powers for both of these projects is delegated to the Infrastructure, Transport and Environment Committee because of the tight time-lines.

1.2 As part of this process the report is also seeking approval to rollover the delegation from the Council meeting on 26 June 2014 to the Infrastructure, Transport and Environment Committee, from agenda item 13 that:

“(1) Riccarton PT Hub Upgrade of Passenger Facilities – Superstop designs

1.5 Delegate decision on the final design version for the superstop and associated street works to the Environmental Committee because of tight time-lines.”

1.3 The Council’s approval is considered crucial because these two PT Projects require key decisions to be taken in December 2014 so they can be implemented in the first half of 2015.

2. EXECUTIVE SUMMARY

2.1 These projects are considered as being of metropolitan significance for a number of reasons as outlined in section 3.

2.2 In the delegations register for roads it states that:

*“It is the Council’s intention that Community Boards exercise their delegations in respect of **local projects**. A local project is any project that has only a local impact within the Community Board’s boundaries.”*

*“**Technical and metropolitan projects** are the responsibility of the Council. A technical project is a project with no public priority or design input required, or an internally focused project. A metropolitan project is a project which impacts on users across the city or is on recognised metropolitan assets.”*

“The decision as to whether the exercise of a delegated power is for a local project must be made by the Chief Operating Officer and the Director Corporate Services on behalf of the Chief Executive. The Chief Operating Officer and the Director Corporate Services may consult with the chairperson of the relevant Community Board.”

2.3 The metropolitan status of these projects was first considered in the 3 December 2013 Part A report to the Riccarton / Wigram Community Board (refer **Attachment 1**) which considered the proposals related to the lease of 119 Riccarton Road as the PT Hub lounge, which did not progress.

3. BACKGROUND

3.1 The concept of a passenger transport interchange and accompanying facilities on Riccarton Road (near to the Westfield Mall and other retail and commercial units in this area) is an integral part of the city’s overall public transport network and essential for the recovery of the network post earthquake. The Riccarton Road Corridor is the busiest bus corridor in the City and the section of Riccarton Road between Matipo Street and

Clarence Street is the busiest passenger hub outside the central City. Over 2,800 passengers board bus services at bus stops on this section of street daily; a 40 percent increase since February 2011, which is one of the key factors in both proposals.

- 3.2 This dual metropolitan significance as the key western public transport corridor and an important suburban interchange location is endorsed by recent policies and strategies:
- 3.2.1 **Draft Regional Passenger Transport Plan (RPTP), Environment Canterbury (Ecan) 2014 – 2024** introduces the new connected service delivery model for the City's public transport network, with new routes affecting the Riccarton Road corridor and the PT Hub from December 2014.
- 3.2.2 **The Christchurch Transport Strategic Plan (CTSP), Christchurch City Council (CCC) 2012 – 2042** set out the City's direction to transform the public transport system into an attractive and reliable choice for commuters. The Plan defines a network of prioritised strategic public transport routes which are supported by a network of facilities (including suburban interchanges) and bus priority, which include the Riccarton Road Corridor and the Riccarton PT Hub.
- 3.2.3 **The Greater Christchurch Transport Statement (GCTS) signed by the UDS Partnership, 2012** has as top priority public transport infrastructure and transport interchanges (including Riccarton) for recovery and future growth of the city.
- 3.2.4 **Three Year Plan (TYP); CCC 2013/16 and the Crown/Council funding agreement** outlines the Council's spending priorities, specifically sanctioning the Riccarton Road priority scheme and the Riccarton PT Hub.
- 3.2.5 **The Greater Christchurch Land Use Recovery Plan (LURP), Canterbury Earthquake Recovery Authority (CERA), 2013.** The LURP highlights that establishing the Riccarton interchange and the on-street priority measures as vital to the success of the central city public transport interchange, the growth of public transport patronage, and the recovery of the city.
- 3.2.6 **An Accessible City (CERA) 2013** together with the LURP identifies the Riccarton PT Hub, together with the associated PT priority measures as essential to the recovery of the central city and integral to the success of the central city interchange and the overall recovery of the public transport system.
- 3.3 In a Part A report submitted to the Riccarton / Wigram Community Board meeting on 3 December 2013 (refer **Attachment 1**) the metropolitan significance of the then current proposal for a waiting lounge at 119 Riccarton Road and associated parking and bus stop changes was recognised. Although later in December 2013, the Council decided not to pursue this option and staff were instructed to report back on the other options in this area in March 2014 indicates that this is a key project for the whole city.
- 3.4 As highlighted above the metropolitan significance and the need for quick decision making was recognised when the Council on 26 June 2014 delegated its decision making power to the Environmental Committee (refer **Attachment 2**). The Environmental Committee has acted on this delegation twice since in reports to the meetings on 26 August and 23 September. In addition the Committee and the Riccarton / Wigram Community Board met for a confidential staff briefing on 23 September to review the options to be considered by the Committee later that morning.
- 3.5 The new connected network proposed by ECan will come into operation in December 2014 and the new Central City Exchange is planned to open in April 2015. In order to ensure that these projects are successful both Riccarton PT projects are crucial and need to be in place as soon as possible.

4. COMMENT

- 4.1 It is clear that although there is a keen local interest in both the Riccarton Bus Priority and the Riccarton PT Hub proposals there is also a wider impact across the whole city in respect of the implementation of both schemes. There are two elements to this issue:

- 4 -

4.1.1 **Riccarton PT Hub and Super Stops** – Confirmation of the Council's delegation from the 26 June 2014 meeting to the Environmental Committee (refer **Attachment 2**) now applies to the new Infrastructure, Transport and Environment Committee and that this project is of metropolitan significance.

4.1.2 **Riccarton Road Corridor Bus Priority Project** – confirm that the proposed bus priority measures are also a matter of metropolitan significance and that the Infrastructure, Transport and Environment Committee is granted the Council's delegated powers to make the necessary decisions because of the tight timelines.

4.2 The contents of this report do not mean that the Riccarton / Wigram Community Board will not be involved in the decision process for both elements of the Riccarton PT projects. A template for this process could be similar to the joint briefing conducted with the Environmental Committee on 23 September 2014. The details of future joint or separate briefings will be determined in due course.

4.3 In addition, the Riccarton / Wigram Community Board will have opportunities to make recommendations through Part A reports on all on-street works to the Infrastructure, Transport and Environment Committee.

5. **FINANCIAL IMPLICATIONS**

5.1 There are no direct financial implications arising from this report.

6. **STAFF RECOMMENDATION**

It is recommended that the Council:

6.1 Confirms that the Riccarton Public Transport Hub waiting lounge, super stop and associated street works, and the Riccarton Public Transport Priority project are both issues of metropolitan significance within the meaning of the Council's delegations register.

6.2 Delegates the decision on the final design version for the Riccarton PT Hub waiting lounge, the super stop and associated street works to the Infrastructure, Transport and Environment Committee because of tight time-lines.

6.3 Delegates the decision on the final design version for the Riccarton PT Priority project and associated street works to the Infrastructure, Transport and Environment Committee because of tight time-lines.

6.4 Instructs staff to ensure the Riccarton / Wigram Community Board is kept informed on the proposals arising from both project streams and staff arrange appropriate briefing session(s) accordingly.

6.5 Confirms that the Riccarton / Wigram Community Board will continue to make recommendations to the Infrastructure, Transport and Environment Committee on issues such as on-street works through Part A reports for the Riccarton PT Priority and the Riccarton PT Hub projects.



Option 1 – Peak hour bus lanes



Parking permitted outside operational hours of bus lane

Option 2 – Streetscape improvements to remove side friction



Cross-section taken at superstop



Minimal car parking available but improved street environment

Option 2 – Streetscape improvements to remove side friction



Cross-section taken at build out



Minimal car parking available but improved street environment



Scheme – Option 3 Hybrid option, Matipo to Clarence



Scheme – Option 3 Hybrid option, Matipo to Clarence



Options Assessment for Riccarton Road - Clarence Street to Matipo Street

Option	Improve access and choice	Create safe, healthy and liveable communities	Support economic vitality	Create opportunities for environmental enhancements	Risks to Delivery
	(Journey time reliability)	(Improving Safety)			
Option 1 - Peak Hour Bus Lanes	Improved bus journey reliability times in peak times.	Pedestrian crossing distances increased as all build outs removed.	Limited room on main street to provide cycle parking. Ten customers who arrive by bike fit in the parking space of one customer who arrives by car ¹ .	Removal of all build outs. Reduce visual amenity and no opportunity for enhancements on main street.	On-street mobility/loading and short-term parking provided outside of peak times.
	✓✓	x	x	x	
	Delays to general traffic, but parallel corridor (Blenheim Road) available for through traffic and large goods vehicles.	Reduced pedestrian areas and public space for lingering and meeting.	Limited room for people to linger and enjoy the public space. May spend less as will stay only for duration that is needed for shopping.	No further room for tree planting as footpaths retained at 3 metres.	Parking available at rear of shops on northside and southside.
	✓	x	x	x	✓
		No dedicated cycle lanes, but residual benefit from peak hour bus lanes and increased room outside of peak time.	Removal of parking to prioritise the bus means more people can travel per vehicle to Riccarton (average bus can hold up to 50 passengers).	Over-dimension designation would remain.	
		✓✓	✓✓		
	Parallel cycle route being developed as part of Major Cycleway Network.				
	✓✓				
Option 2 – Streetscape Improvements to Remove Side Friction (limited on-street parking)	Journey time steady as no priority. Reduced side friction should ease flow (Parking and other forms of side friction in complex environments slows vehicle speeds) ² .	Pedestrians can use the median to undertake informal crossings along the street.	Increase support for local businesses through improved pedestrian spaces to increase foot traffic. Well-planned improvements to public spaces can boost footfall and trading by up to 40% ³	Yes increase public space areas allowing for improvements to planting and landscaping.	On-street loading and short-term parking provided on southern side.
	✓	✓	✓✓	✓✓	
	Delays to general traffic, but parallel corridor (Blenheim Road) available for through traffic and large goods vehicles.	Reduced vehicle speeds by enhancing the surroundings. Reduced severity if crash occurs.	Better streets attract more people. Improve quality of Riccarton Road shopping experience by improving the streetscape on the south side (sunny side).	Over-dimension designation would need to be removed. Alternative route is Blenheim Road.	Parking available at rear of shops on northside and southside.
	✓	✓	✓✓		✓
	Potential for increase tree plantings to improve air quality	NZTA research also showed that shoppers considered landscaping, pedestrian crossings and frequent bus services more important than on-street car parking in making their decision to shop in an area. ⁴			
	✓	✓✓			
Option 3 - Peak hour bus lane inbound and streetscape improvements on southern side.	Improved bus journey reliability times in peak times. Westbound bus journey time steady as no priority with reduced side friction that should ease flow.	Pedestrian crossing distances increased as build outs removed on north side.	Increase support for local businesses through improved pedestrian environment to increase foot traffic on the southside. Well-planned improvements to public spaces can boost footfall and trading by up to 40% ⁵	Yes increase public space areas allowing for outdoor dining, seating areas and improvements to planting and landscaping on south side only.	Smaller number of on-street loading and short-term parking provided at all times to reduce side friction for bus movements on south side. Parking available on north side outside of peak times. Parking available at rear of shops on northside and southside.
	✓	x	✓	✓	
	Delays to general traffic, but parallel corridor available for through traffic and large goods vehicles.	No dedicated cycle lanes, but residual benefit from peak hour bus lanes and increased room outside of peak time on northern side. Wide traffic lane on southside.	Better streets attract more people ⁶ . Improve quality of Riccarton Road shopping experience by improving the streetscape on the south side (sunny side).	Over-dimension designation would remain.	Parking available at rear of shops on northside and southside.
	✓	✓✓	✓✓		✓
		Parallel cycle route being developed as part of Major Cycleway Network.	Space to provide parking for bicycles on south side.		
	✓✓	✓			

¹ Protected Bike Lanes Mean Business (How 21st Century Transportation Networks Help New Urban Economies Boom), People for Bikes and Alliance for Biking and Walking

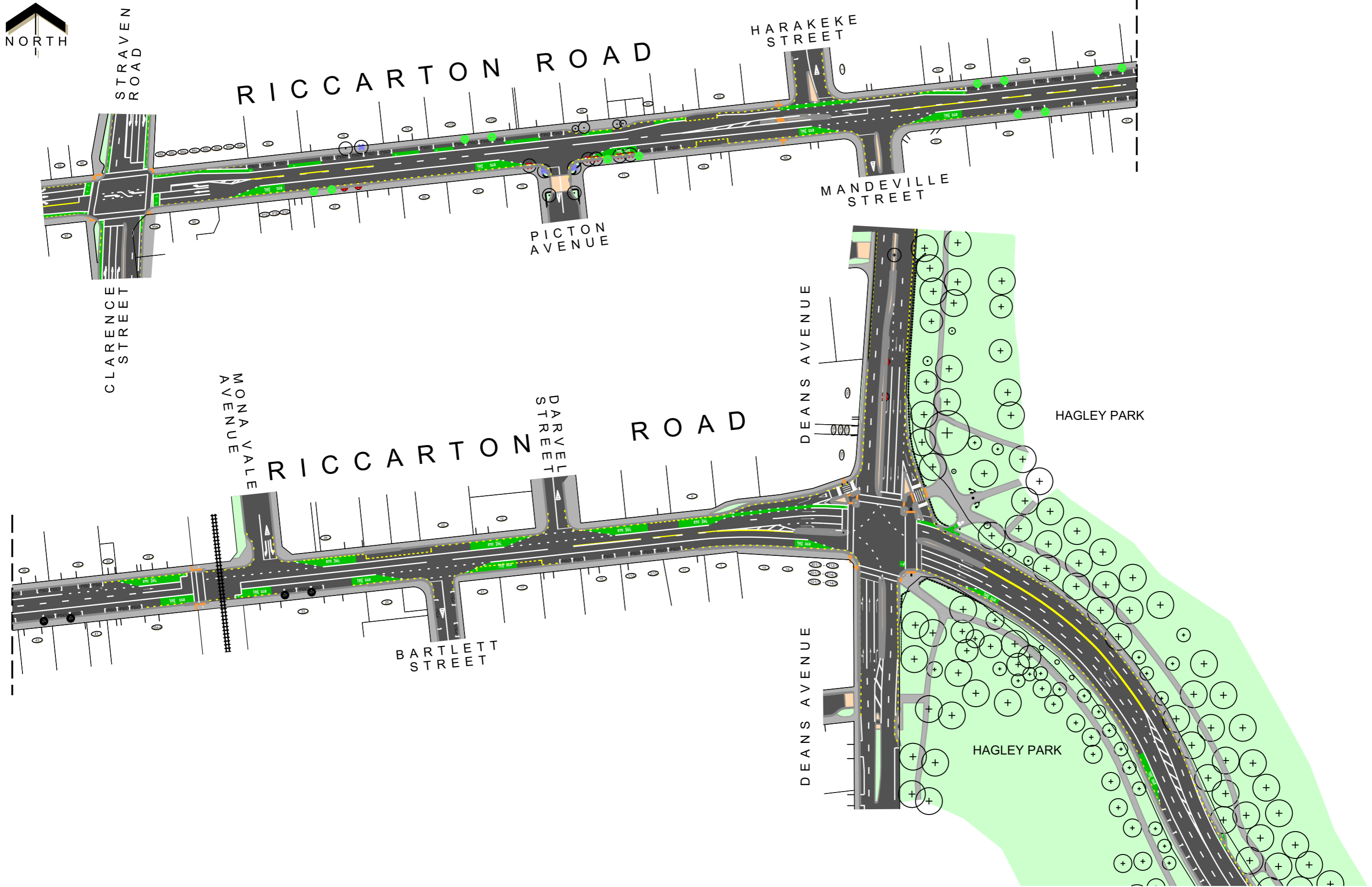
² Appraisal of Shared Space

³ The Pedestrian Pound (The Business Case for Better Streets and Places), Sustrans

⁴ Re-allocation of Road Space, NZTA

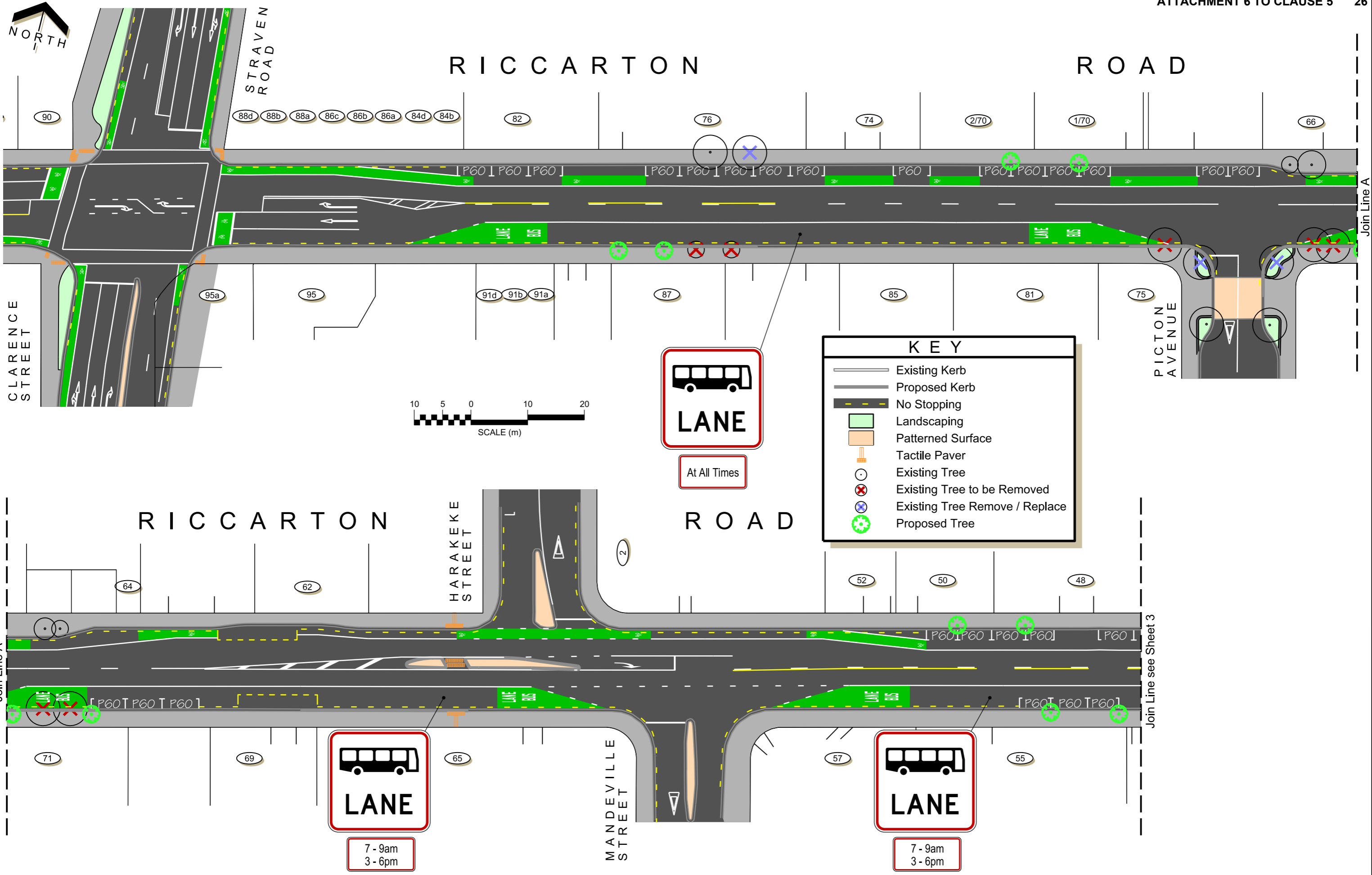
⁵ The Pedestrian Pound (The Business Case for Better Streets and Places), Sustrans

⁶ The Economic Benefits of Sustainable Streets, New York City, Department of Transport



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RICCARTON



At All Times

MONA VALE AVENUE



At All Times

LANE ROAD

Join Line see Sheet 2

Join Line B

Join Line B

Join Line see Sheet 4

RICCARTON ROAD



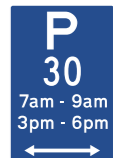
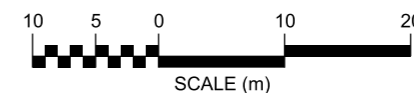
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At All Times











DARVEL STREET

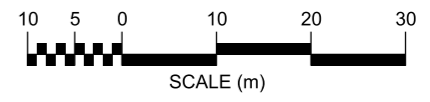
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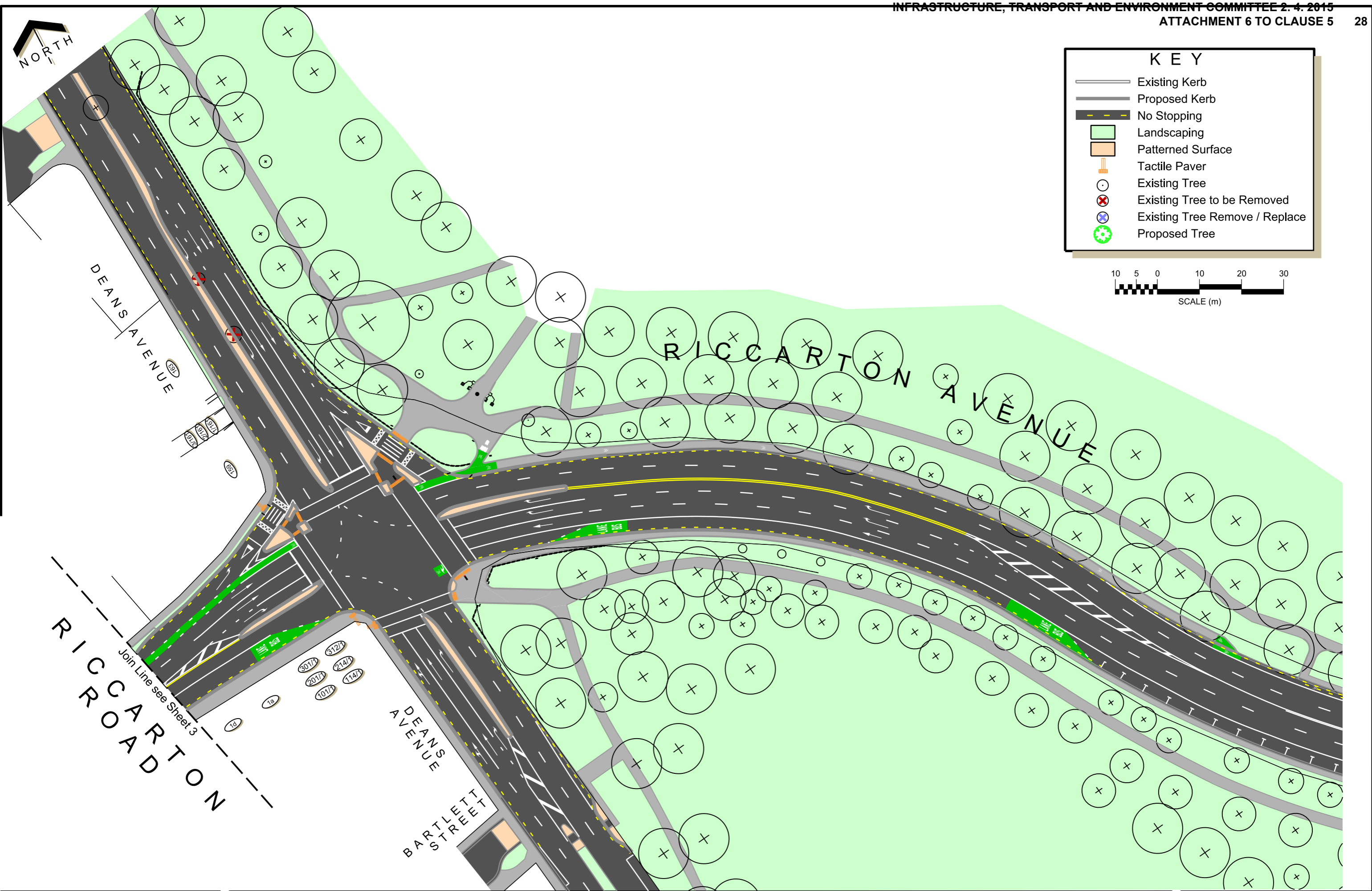


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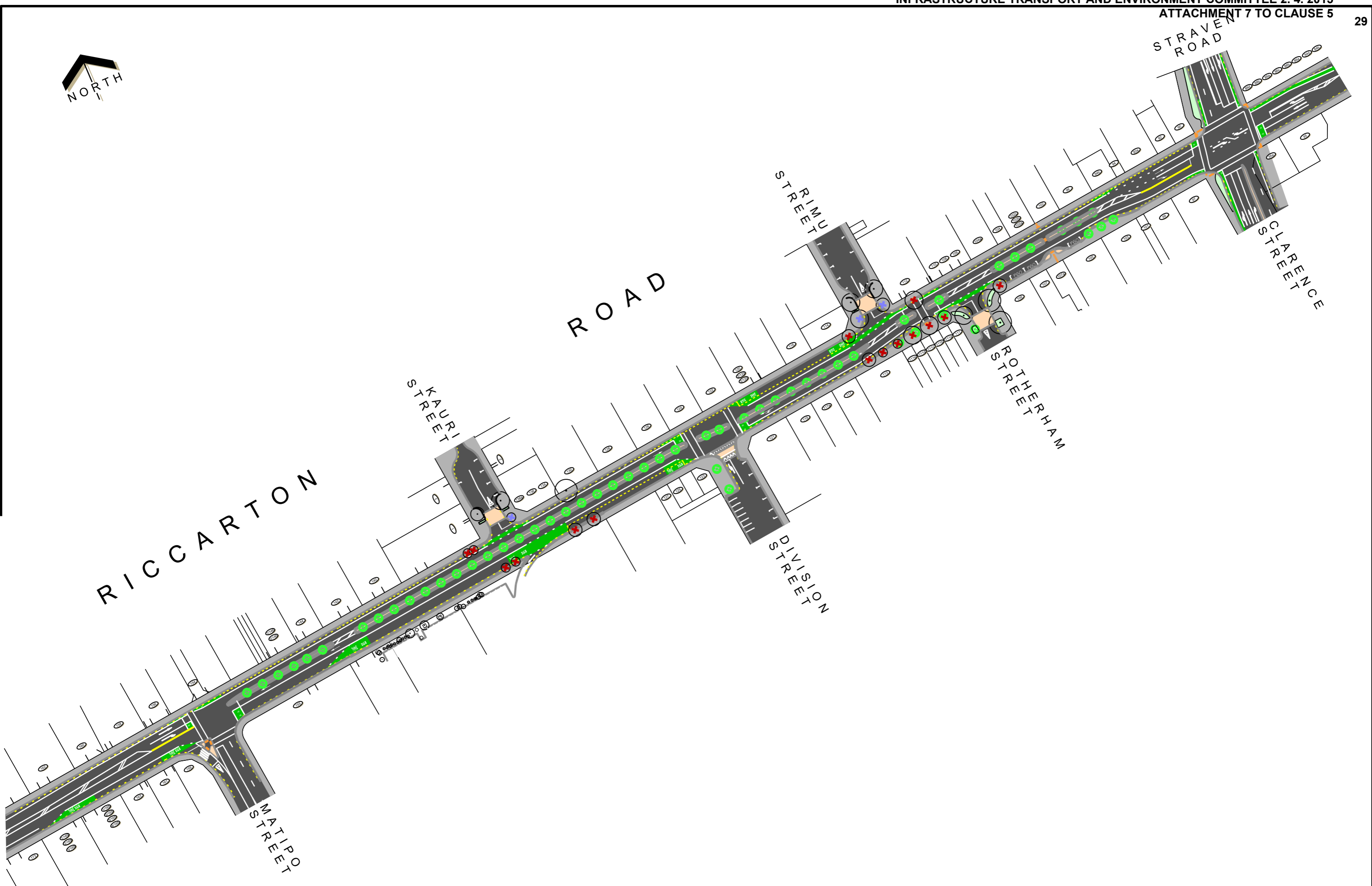
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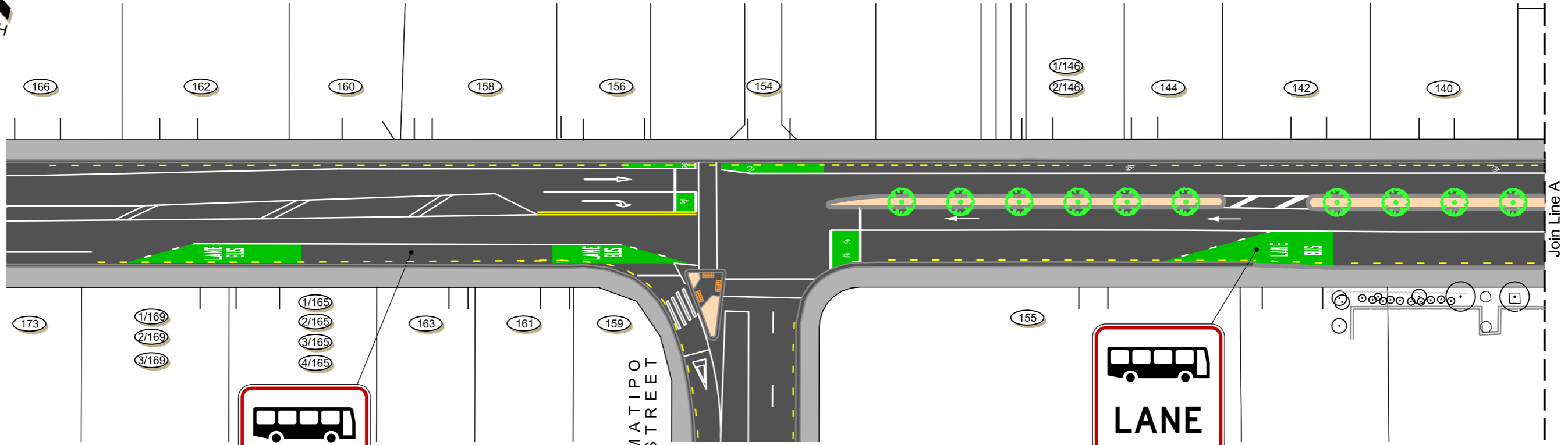


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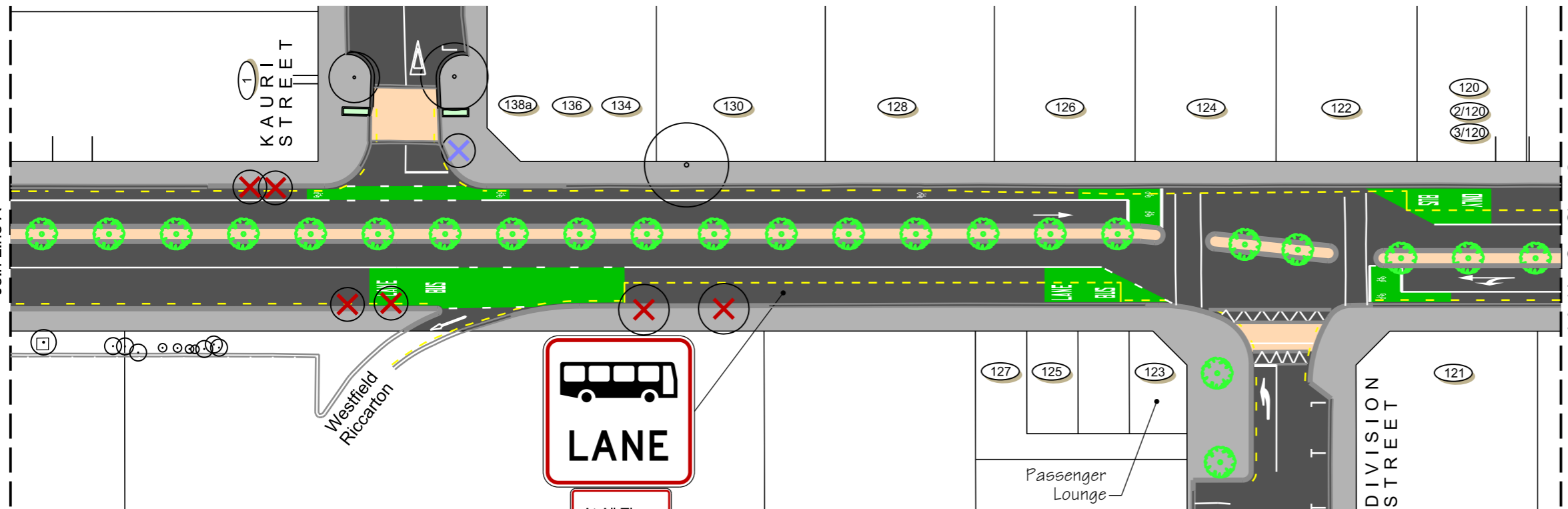


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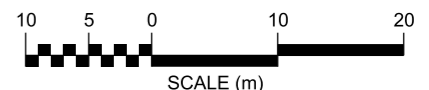
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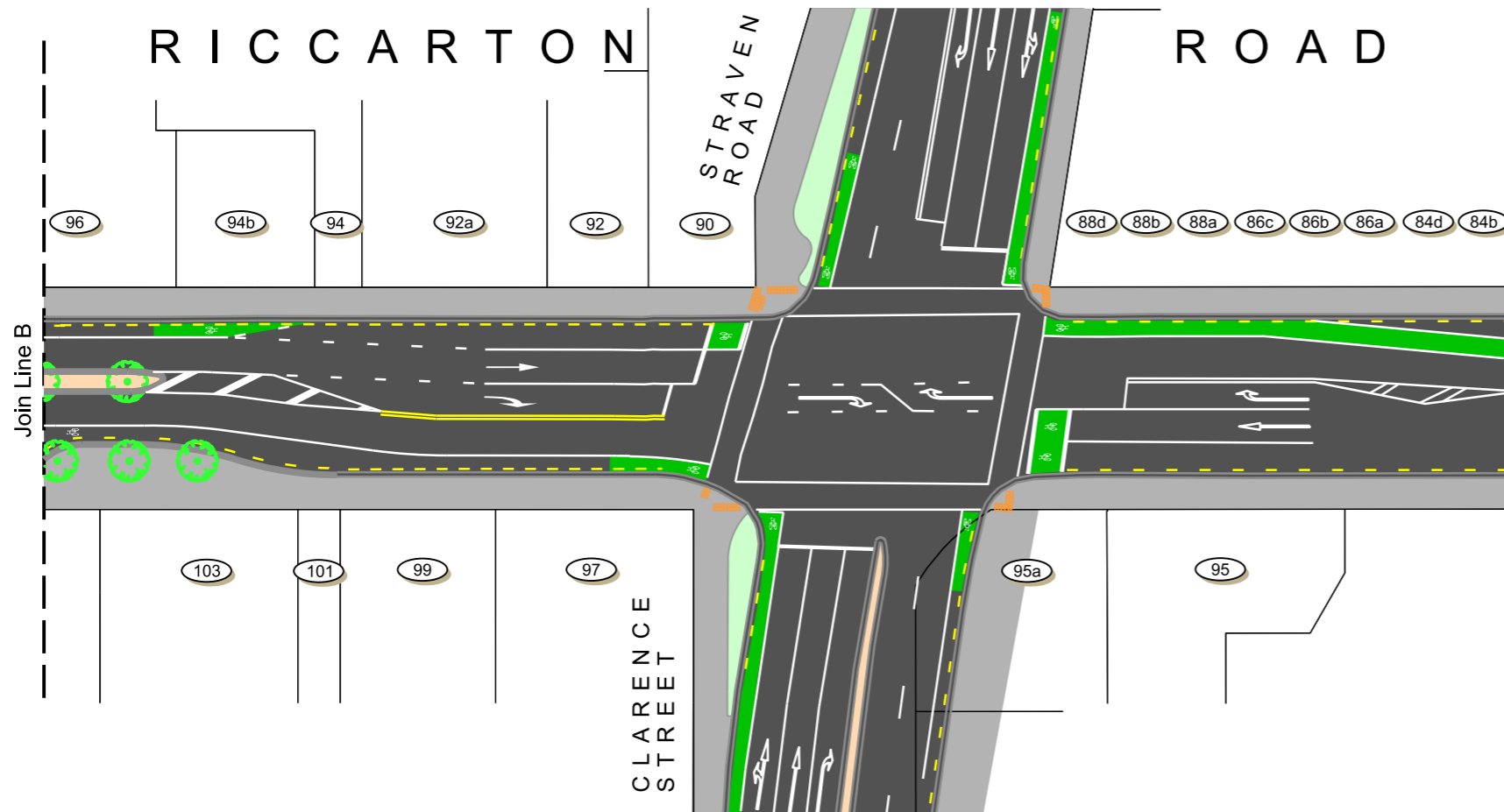
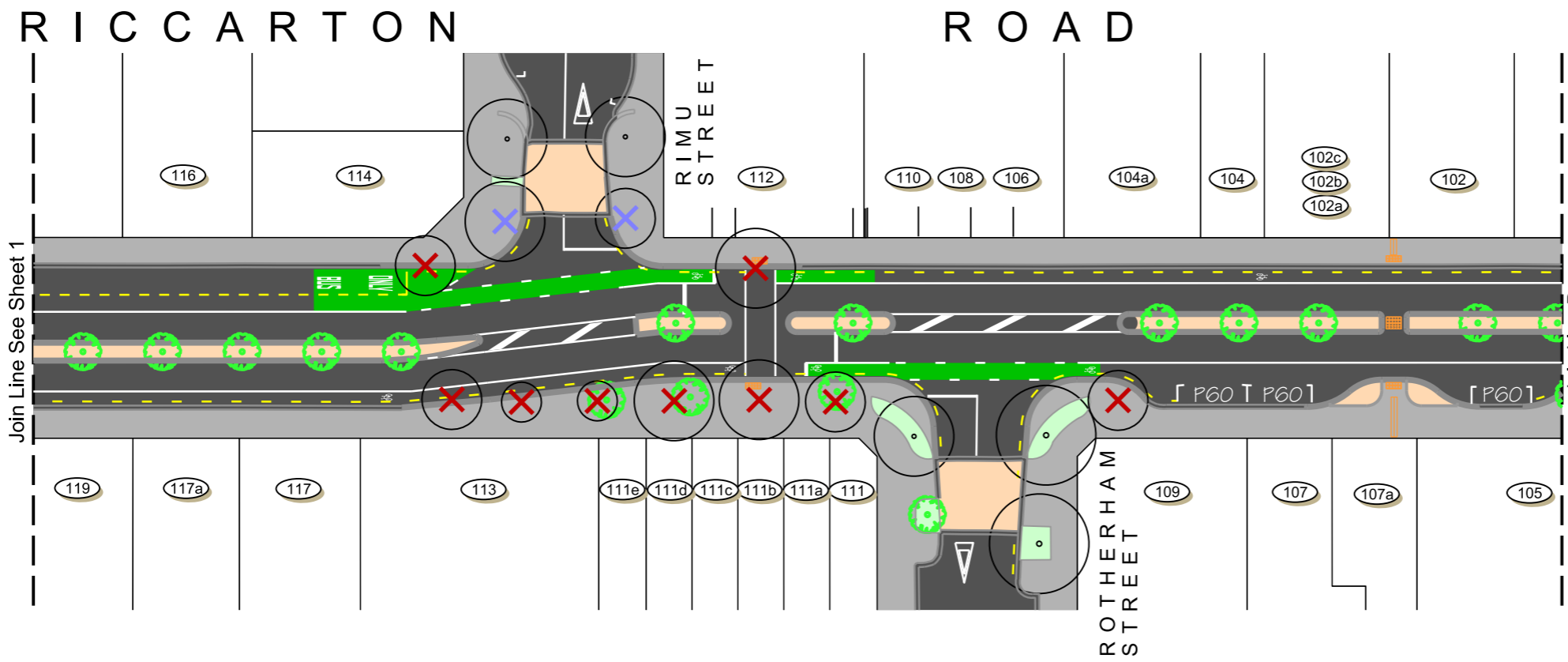
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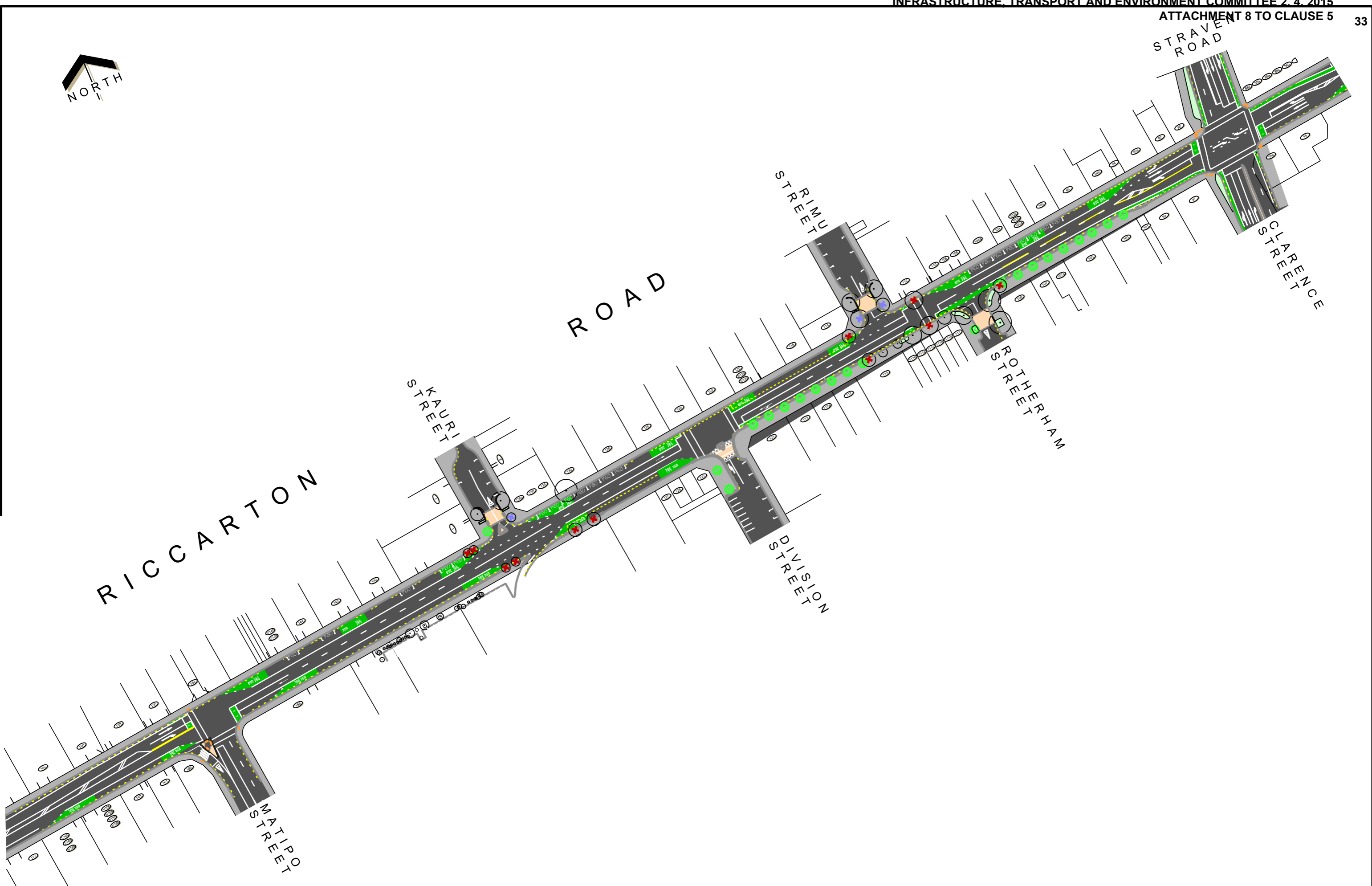
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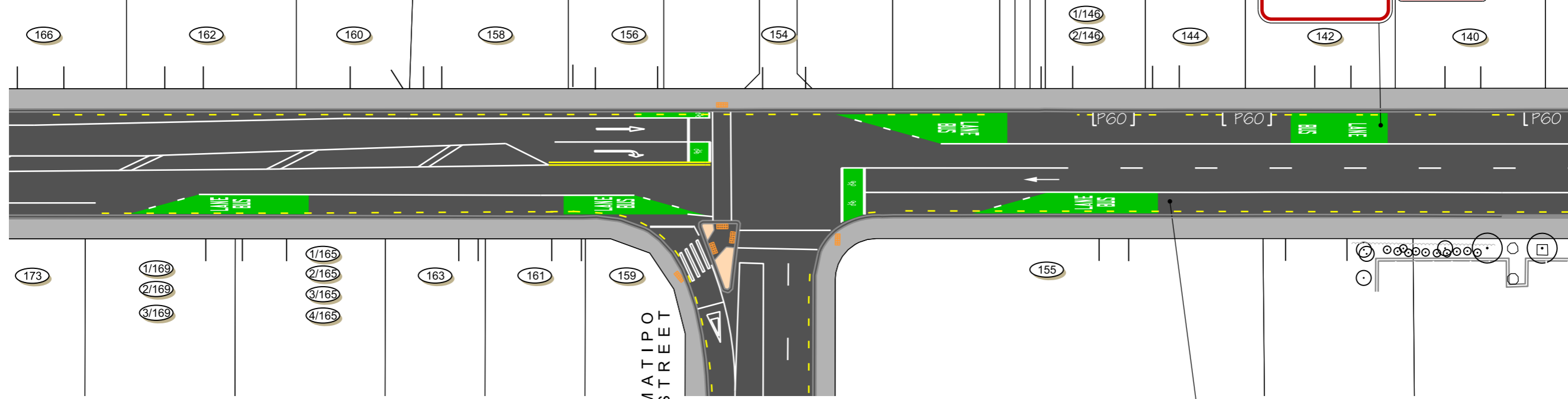




RICCARTON



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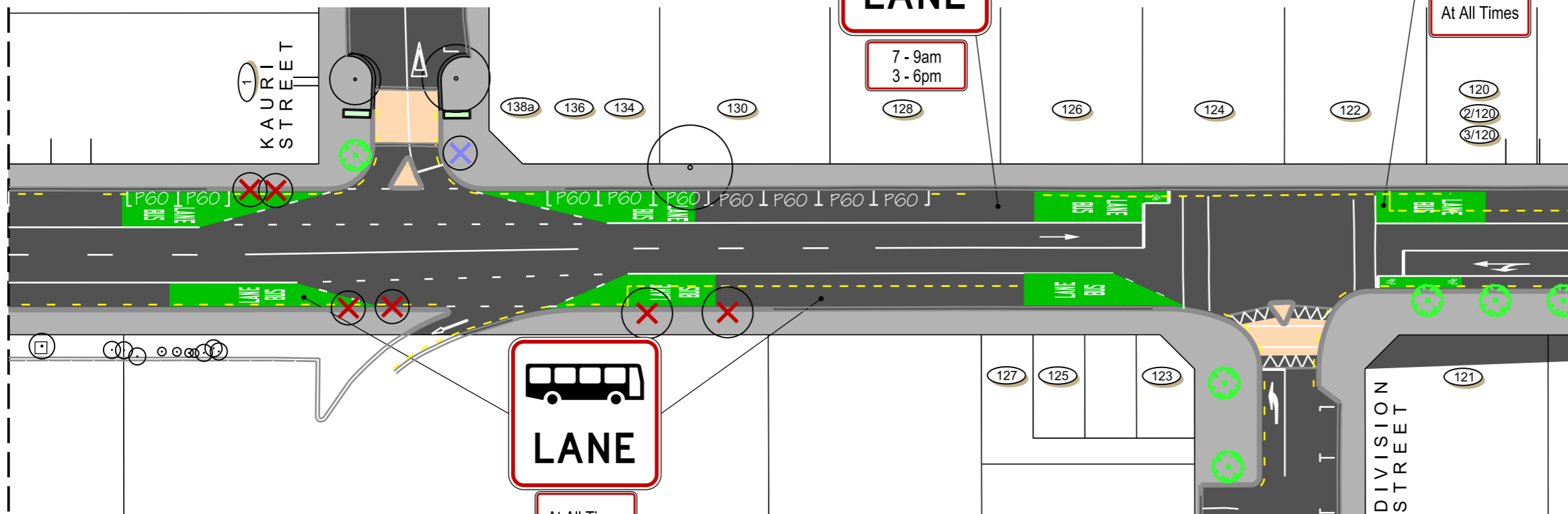
MATIPO STREET

Join Line A

RICCARTON ROAD



At All Times



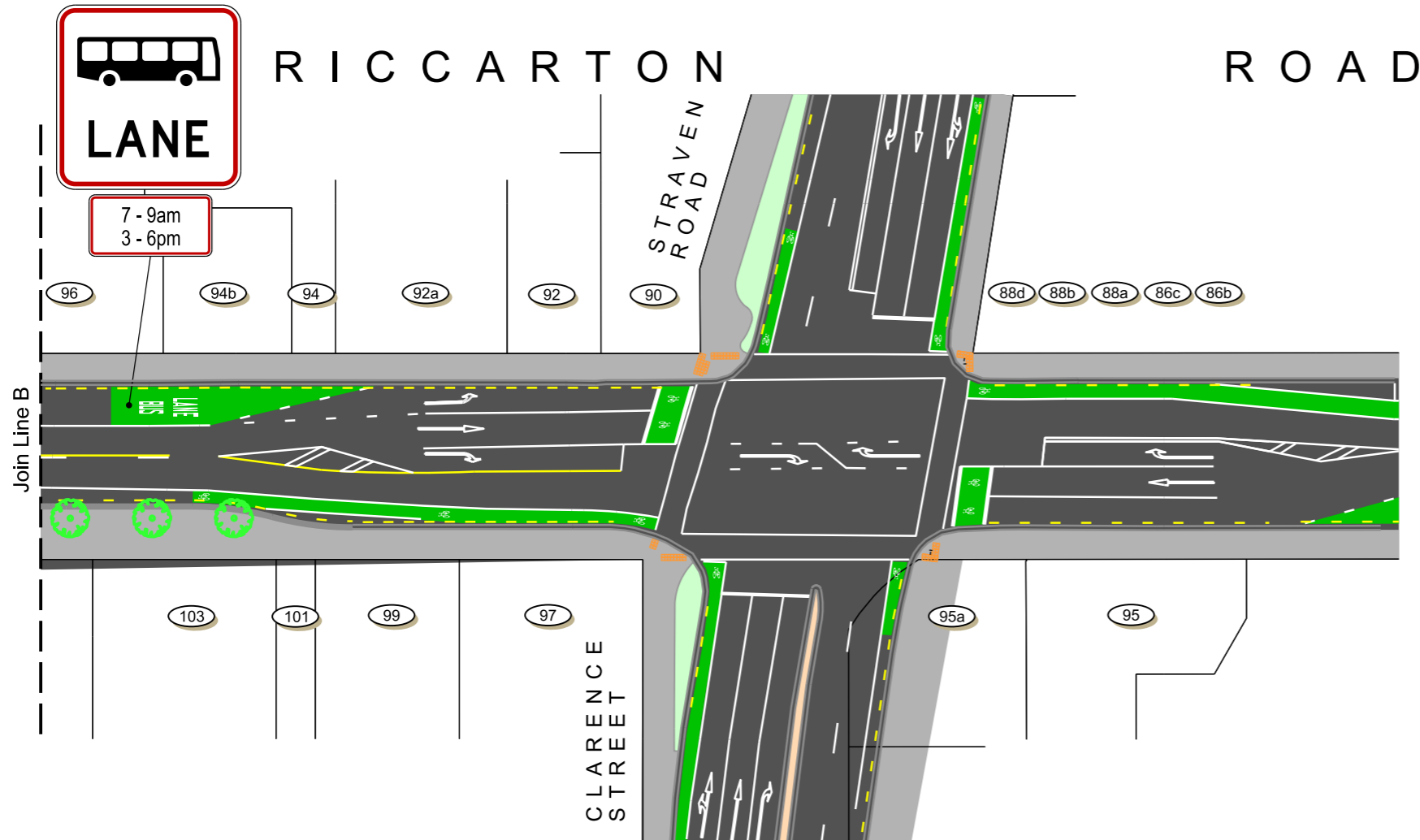
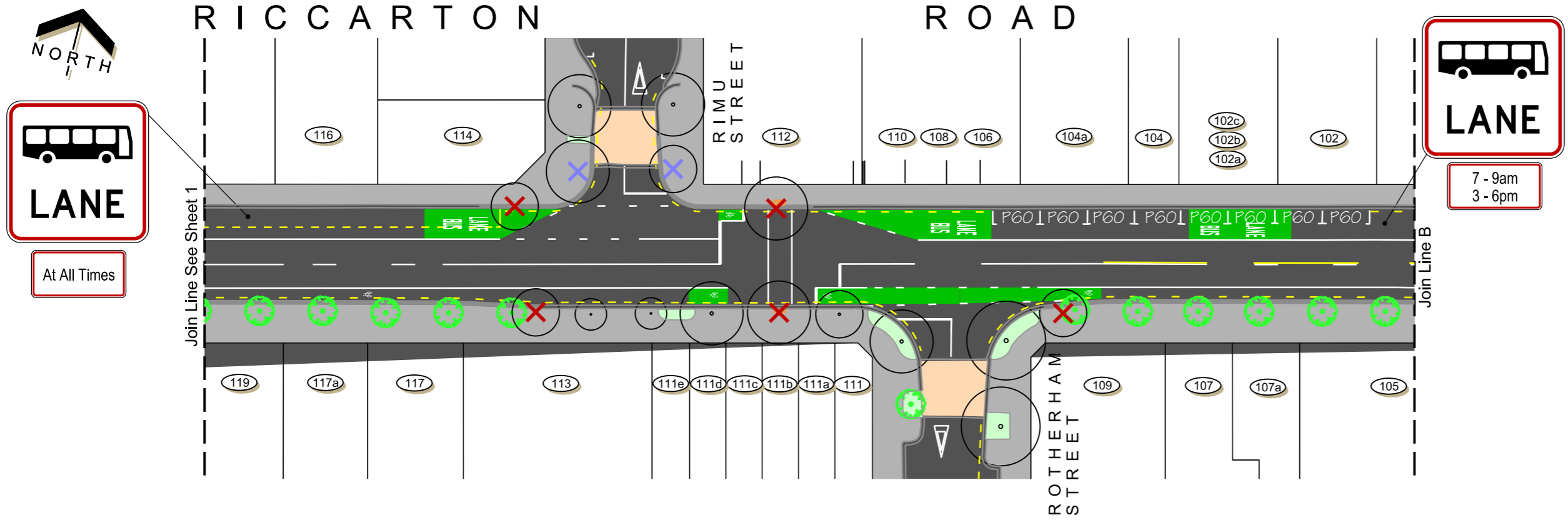
KAURI STREET

DIVISION STREET

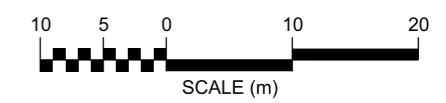
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**REPORT BY THE CHAIRPERSON OF THE
RICCARTON/WIGRAM COMMUNITY BOARD
17 MARCH 2015**

PART A - MATTERS REQUIRING A DECISION BY THE INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE

1. RICCARTON ROAD BUS PRIORITY PROJECT - CONSULTATION

		Contact	Contact Details
Executive Leadership Team Member responsible:	General Manager, Culture Leisure and Parks	N	
Officer responsible:	Unit Manager, Assets and Network	N	
Author:	Philip Basher Transport Policy Engineer – OP Assets and Network	Y	941-8605

1. PURPOSE AND ORIGIN OF REPORT

- 1.1 The report outlines for the Infrastructure, Transport and Environment Committee's consideration, the recommendation from the Riccarton/Wigram Community Board regarding the proposal to consult on the on-street measures for bus priority on Riccarton Road between Deans Avenue and Matipo Street and seeks the Board's view on the consultation plan.
- 1.2 On 20 March 2014, the Environmental Committee resolved to:
 - 1.2.1 Request that staff investigate bus priority measures along Riccarton Road.
- 1.3 A joint seminar was held on 19 December 2014 to enable staff to engage with the elected members of the Infrastructure, Transport and Environment Committee, (ITE) Riccarton/Wigram and Hagley/Ferrymead Community Boards on the bus priority measures proposed for Riccarton Road. The elected members were advised that both Community Boards and the Committee will have the opportunity to consider the proposed consultation through reports.

2. EXECUTIVE SUMMARY

- 2.1 This Part A report provides details of the consultation plan for the Riccarton Road Bus Priority Project as it is considered to be of Metropolitan significance the final decision will be taken by the Infrastructure, Transport and Environment Committee on 2 April 2015 and the Community Board's recommendations will be reported separately to that Committee.
- 2.2 For the purposes of this report the remit of the Riccarton/Wigram Community Board is limited between the Ward Boundary at the Riccarton Road/Avenue and Deans Avenue intersection and Matipo Street. The Community Board will advise the Infrastructure, Transport and Environment Committee formally for Stage 1 Deans Avenue to Matipo Street bus priority measures through this Part A report.

3. BACKGROUND

- 3.1 The proposed bus priority project on Riccarton Road (between Matipo Street and Deans Avenue) is an integral part of the city's overall public transport network and essential for the recovery of the network post-earthquake. Riccarton Road is the busiest bus corridor in the City and this status is endorsed by recent policies and strategie

1. Cont'd

- 3.1.1 Regional Passenger Transport Plan (RPTP), Environment Canterbury (ECan) 2014 – 2024. The Regional Public Transport Plan introduces a new operational model for the city's public transport network, based on a "hubs and spokes" approach. The system relies on the establishment of a series of suburban interchanges where feeder services will link passengers on to the core high frequency service routes.
- 3.1.2 The Christchurch Transport Strategic Plan (CTSP), Christchurch City Council (CCC) 2012 – 2042. The CTSP confirms support for the principles of the RPTP and the new "hubs and spokes" model, and identifies Riccarton Road as a key public transport corridor.
- 3.1.3 Greater Christchurch Transport Statement (GCTS) UDS Partnership, 2012. The GCTS identifies public transport and priorities measures as one of the top priorities for recovery and future growth of the city.
- 3.1.4 Three Year Plan (TYP); CCC 2013/16 plus the Crown/Council funding agreement covers the anchor projects in the central city, one of which is the Public Transport interchange and directly associated improvements to Metro services outside the central city which includes the Riccarton Road Bus Priority.
- 3.1.5 An Accessible City (CERA) 2013. The transport chapter of the Central Christchurch Recovery Plan highlights the importance of the core public transport routes coming into the City from the North and West. Riccarton (Westfield) is a key hub for bringing in passengers from the western suburbs and the University to meet the core routes to and through the central city as well as transfers onto the orbital services. Ten of the city's core bus routes pass through this interchange.
- 3.2 The Council's Three Year Plan (TYP) for 2013-16 and the Crown/Council Funding Agreement identifies funding for the Riccarton Road bus priority measures as integral to the success of the Central City Public Transport interchange project.
- 3.3 The bus priority and associated traffic measures outlined in this report have been designed and modelled based on the principles of the Riccarton Road Corridor Study. The study identified measures for the Riccarton Road corridor that will improve reliability and reduce journey times for public transport.

4. COMMENT***Bus Priority Scheme***

- 4.1 A number of scheme options have been considered based on previous studies including the Riccarton Corridor study. This has led staff to deduce that the proposed Riccarton Road Bus Priority scheme can be divided into two key components:

- 4.1.1 Deans Avenue – Clarence Street/Straven Road

- 4.1.2 Riccarton Town Centre – Clarence Street/ Straven Road – Matipo Street

Deans Avenue – Clarence Street/Straven Road

- 4.2 This section of the Riccarton Road Corridor is considered more suitable for conventional bus priority and other traffic improvement measures which can be summarised as:

1. Cont'd

- 4.2.1 Deans Avenue/Riccarton Road/Riccarton Avenue intersection to be signalised with bus lanes on the eastern and western approaches. The bus lanes on the approach to the intersection are to operate as full time bus lanes.
- 4.2.2 Part time (both peak hours 0700 – 0900 hours and 1500 – 1800 hours) bus lanes for westbound buses between the Deans Avenue/Riccarton Road/Riccarton Avenue and the Riccarton Road/Picton Avenue intersection.
- 4.2.3 Full time bus lane on the westbound approach to the Clarence Street/Straven Road intersection from the Riccarton Road/Picton Avenue intersection.
- 4.2.4 Most on street parking will be maintained although some car parks will not be available during the operational hours of the bus lanes. In the sections of permanent bus lane, four car parks will be permanently removed for the eastbound lane on the approach to Deans Avenue, there are no proposals to remove parking for the permanent westbound bus lane on Riccarton Avenue, however 15 car parks are removed for the intersection works, and eight car parks will be permanently removed for the westbound bus lane on the approach to Clarence Street.
- 4.2.5 Introduce short-term parking on Bartlett Street during the operational hours of the bus lanes for the local retail facilities.
- 4.2.6 An early start is proposed for westbound buses on Riccarton Road at the Riccarton Road/Clarence Street intersection to get ahead of general traffic.
- 4.2.7 It is proposed to remove the zebra crossing to the east of Mona Vale Avenue, and be replaced with a signal controlled pedestrian crossing on the western approach to the rail crossing. This will be future proofed to accommodate cyclists using the proposed Northern Line Major Cycleway Route that will cross Riccarton Road at this point.

Riccarton Town Centre

- 4.3 This section of the Riccarton Road corridor requires measures that reflects the unique character of this area. There are three options:
 - 4.3.1 Option One – Bus Friendly with peak bus lanes on both sides east and west bound between Clarence/Straven and Matipo Street; Attachment 1 which shows the likely street profile. The bus lanes would operate between 0700 – 0900 hours and 1500 – 1800 hours on both sides of the road.
 - 4.3.2 Option Two – Pedestrian Friendly with streetscape improvements to remove side friction and assist pedestrian movements. There would be no bus lanes, minimal on-street parking and restricted turns into and out of Riccarton Road from Kauri Street and Division Street as approved in the bus lounge design (**Attachment 2** for the possible street profile). Four car parks would be retained outside 105 and 107 Riccarton Road. This option allows for a tree lined median and on-road cycle lanes.
 - 4.3.3 Option Three – Hybrid incorporating elements from Options One and Two seeking to improve the streetscape and assist the movement of buses which is shown in profile in **Attachment 3**.

1. Cont'd

- 4.4 Traffic modelling has been undertaken to assess the option, and the scheme has been through the safety audit process for the scheme stage, and will continue through the process as schemes evolve into detailed design. In addition, the table assessment of the impact of each option is attached to this report (**Attachment 4**).
- 4.5 Staff believe that Options A (Pedestrian Friendly) and B (Hybrid) should go out to consultation with the public (**Attachment 5**) because they would address the main objectives of improving the pedestrian environment and assisting in improving bus movement through the area. Option One would not improve the pedestrian environment in the Riccarton Town Centre area.

Consultation plan summary

- 4.6 The objectives for the consultation and engagement process are:
- 4.6.1 To ensure all relevant stakeholders are informed at appropriate stages of the project of its purpose, aims and timeframes.
- 4.6.2 To provide an appropriate process for feedback/discussion and a contact point for any input or concerns.
- 4.6.3 To ensure all submitters are aware of the process, procedure and parameters around the decision-making process.
- 4.6.4 To advise submitters of the final concept and how consultation feedback has influenced the plan.
- 4.6.5 To inform submitters of the final decision if it varies significantly from the final proposal.

Consultation scope

- 4.7 Consultation will be carried out within the following framework:
- 4.7.1 Bus Priority is needed on Riccarton Road to meet ECan operational requirements for its new greater Christchurch bus network.
- 4.7.2 Bus Priority on Riccarton Road is also required to ensure the successful operation of the new central City Exchange and the associated super stops on Manchester Street and at the Hospital Corner.
- 4.7.3 The passenger lounge and associated bus stops have been confirmed as part of an earlier consultation and decision making process.
- 4.7.4 The proposal is restricted to the legal road boundaries.

Consultation plan

- 4.8 The project team is working together with ECan staff to develop an integrated plan for consultation and communications. The stakeholder list will include businesses and property owners, bus users, residents, and key interested organisations and community. The consultation plan includes:

1. Cont'd

- 4.8.1 Contacting key stakeholders such as business leaders and community groups ahead of the formal consultation period for preliminary engagement and information sharing.
- 4.8.2 Community consultation will be via a Council 'Have Your Say' on the web site and leaflet with either a paper or electronic feedback form. It will also be supported by posters and other publicity and educational material.
- 4.8.3 Leaflets and fliers will be hand-delivered to adjacent residents and businesses, and mailed to property owners and the wider area and stakeholder list.
- 4.8.4 The planned four week consultation period starting in April 2015 will include three drop-in information sessions, two of which will target different sections of the route (Deans to Clarence, Clarence to Matipo), while welcoming general interest, feedback and questions. The third drop in session will cover the whole route.
- 4.8.5 The consultation period allows for additional meetings with stakeholders and community groups, email, and phone calls.
- 4.8.6 Submitters will be sent the final plan, a summary of consultation feedback and response including changes made as a result of consultation, and details of the meeting ahead of the final decision.

Community Board input to consultation

- 4.9 A joint seminar with the Riccarton/Wigram and Hagley/Ferrymead Community Boards and the Infrastructure, Transport and Environment Committee was held on 19 December 2014 to introduce the project before a preferred option was developed by the project team.
- 4.10 The issues raised and project team responses were then circulated ahead of a seminar with Riccarton/Wigram Community Board and the ITE Committee on 18 February 2015, and a separate seminar for the Hagley/Ferrymead Community Board on 16 March 2015. The purpose of the seminars was to gain feedback on the three options and to explain the preferred option, before the report requesting approval to consult was finalised.
- 4.11 Formal Riccarton/Wigram and Hagley/Ferrymead Community Board input to the plan to consult will be via Part A report recommendations to the ITE Committee decision. Riccarton/Wigram Community Board will consider this matter on 17 March 2015 and the Hagley/Ferrymead Community Board on 18 March 2015. The Infrastructure, Transport and Environment Committee will consider this matter at its meeting on 2 April 2015.

Communications

- 4.12 The Council and Environment Canterbury communications staff are working together on key messages, frequently asked questions, online material and social media posts that align with bus system milestones. The joint agency communication aims are to:
 - 4.12.1 Focus public understanding of and support for the benefits of bus priority.
 - 4.12.2 Inform residents/property/business owners, commuters and the general public and manage their queries and expectations.
 - 4.12.3 Engage with key stakeholders from the outset to explain how bus priority fits into the city-wide network changes and the benefits.

1. Cont'd

- 4.12.4 Brief key people and agencies, to manage their expectations and ensure they have the chance to express their views.
- 4.12.5 Prepare public information e.g. messaging, media release, questions and answers.
- 4.12.6 Partner on project communications.

Riccarton Passenger Waiting Lounge (Northern kerb)

4.13 Staff are actively seeking a passenger waiting lounge site on the north side of Riccarton Road and may shortly reach a lease agreement on a suitable property. This site is close to the approved lounge at 123/125 Riccarton Road, and if the lease is agreed before the Committee meeting, staff will conduct a limited stakeholder consultation in conjunction with the proposed bus priority exercise.

5. **FINANCIAL IMPLICATIONS**

5.1 Funding has already been allocated for the Riccarton Road Public Transport project as part of the Crown/Council Funding Agreement and is included the Annual Plan for 2014 – 2015.

6. **STAFF RECOMMENDATION**

That the Infrastructure, Transport and Environment Committee:

- 6.1 Instruct staff to proceed with community and stakeholder consultation on the proposed Riccarton Road bus priority proposals as outlined in paragraphs 4.1, 4.2 and 4.3 which includes Option Two (Pedestrian Friendly) and Option Three (Hybrid) for the Riccarton Town Centre segment of this project in respect of the area of interest for the Riccarton/Wigram Community Board, i.e. Riccarton Road between the Deans Avenue intersection and Matipo Street.
- 6.2 Instruct staff following the conclusion of the consultation process that the analysis of the outcomes and responses and any amendments to the concept designs shall be reported to the Riccarton/Wigram Community Board by way of a Part A report. The Community Board recommendations will then pass on to the Infrastructure, Transport and Environment Committee for consideration.

7. **BOARD CONSIDERATION**

In its deliberations, staff members in attendance spoke to the accompanying report and responded to questions from members.

Members commented on the increased presence of heavy vehicles using Riccarton Road as a through route and there was a suggestion made of applying a slower speed limit through the main commercial section of Riccarton Road.

Also raised for inclusion in the consultation material, was to show trees planted in the central median.

At the Board meeting, it was **agreed** that to provide clarity, that Option Two and Option Three be renamed Option A and Option B respectively.

8. **BOARD RECOMMENDATION**

The Board **decided** to recommend to the Infrastructure, Transport and Environment Committee that the staff recommendation be adopted.

ATTACHMENT 1 TO CLAUSE 1

Option 1 – Peak hour bus lanes



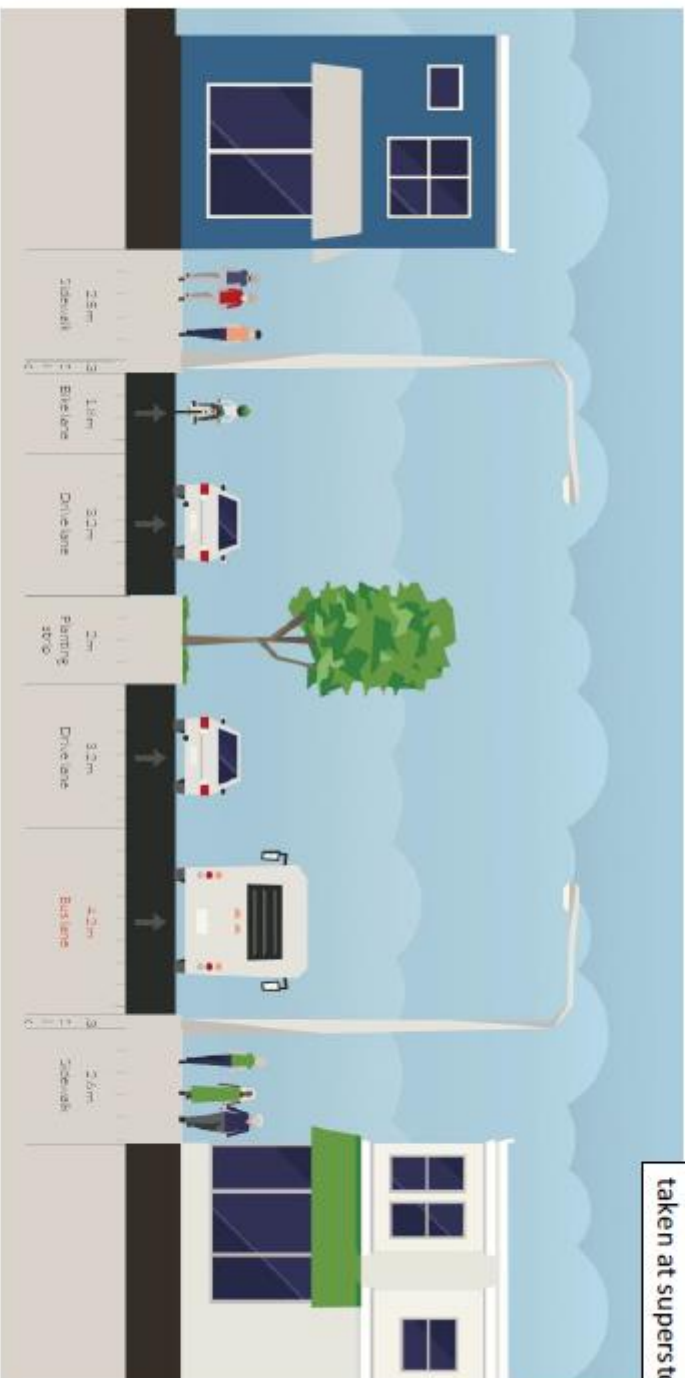
Image from <http://www.streetmix.net/>

ATTACHMENT 2 TO CLAUSE 1

Option 2 – Streetscape improvements to remove side friction



Cross-section taken at superstop



Minimal car parking available but improved street environment



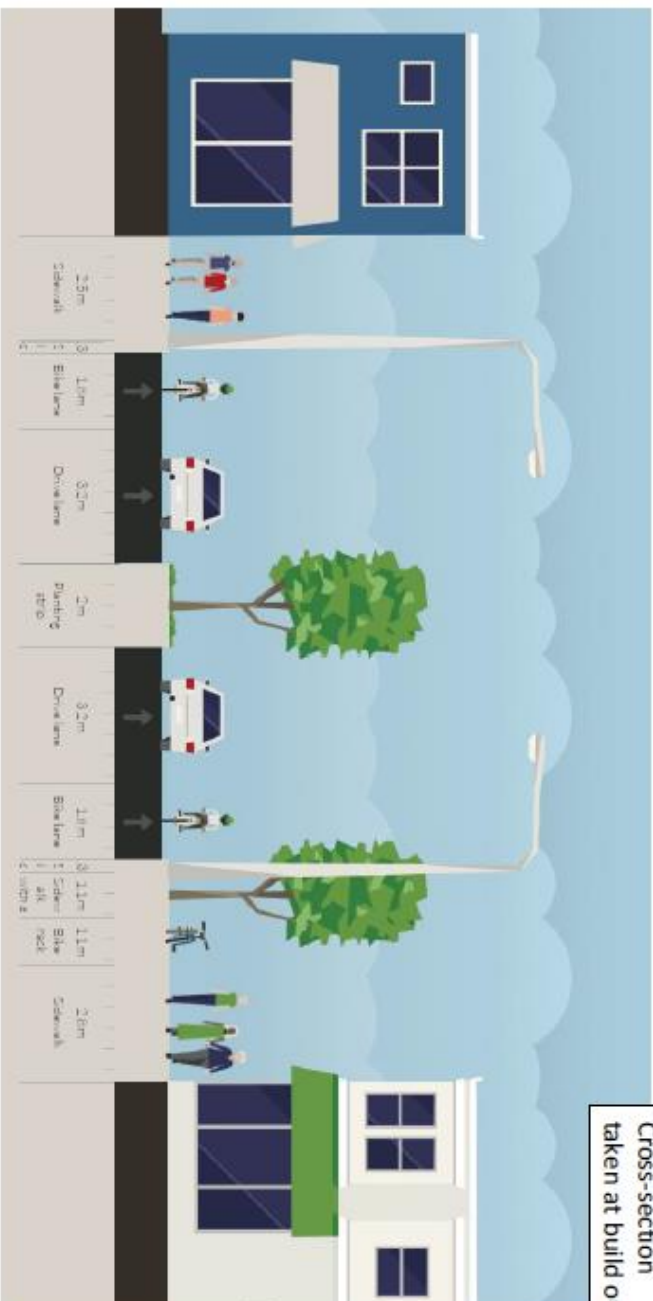
Image from <http://www.streetmix.net/>

ATTACHMENT 2 TO CLAUSE 1 CONT'D

Option 2 – Streetscape improvements to remove side friction



Cross-section taken at build out



Minimal car parking available but improved street environment



Image from <http://www.streetmix.net/>

ATTACHMENT 3 TO CLAUSE 1

Scheme – Option 3 Hybrid option, Matipo to Clarence



ATTACHMENT 4 TO CLAUSE 1

Options Assessment for Riccarton Road - Clarence Street to Matipo Street

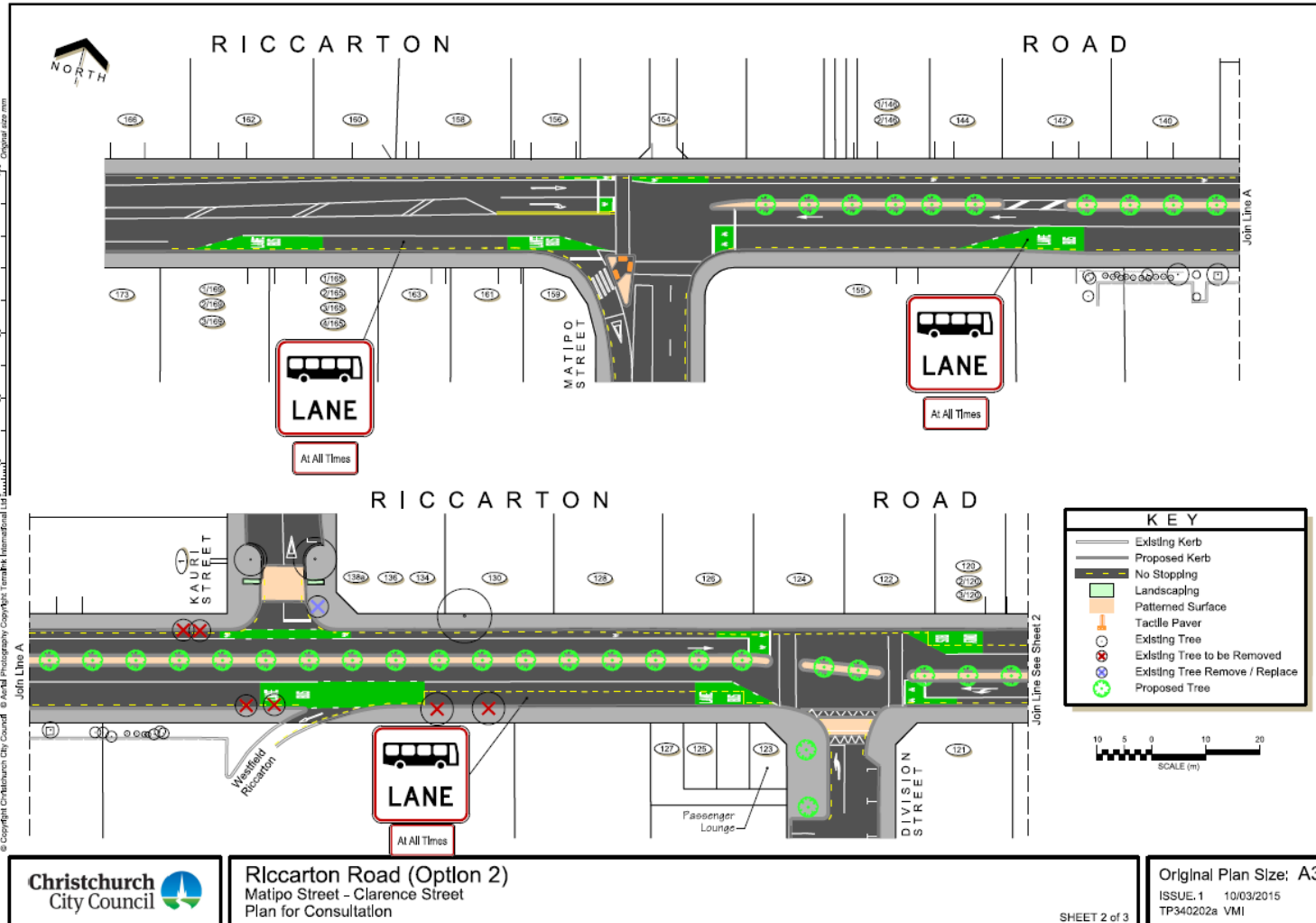
Option	Improve access and choice (Journey time reliability)	Create safe, healthy and liveable communities (Improving Safety)	Support economic vitality	Create opportunities for environmental enhancements	Risks to Delivery
		Improved bus journey reliability times in peak times.	Pedestrian crossing distances increased as all build outs removed.	Limited room on main street to provide cycle parking. Ten customers who arrive by bike fit in the parking space of one customer who arrives by car. ¹	Removal of all build outs. Reduce visual amenity and no opportunity for enhancements on main street.
Option 1 - Peak Hour Bus Lanes	✓✓ Delays to general traffic, but parallel corridor (Blenheim Road) available for through traffic and large goods vehicles.	✓ Reduced pedestrian areas and public space for lingering and meeting.	✓ Limited room for people to linger and enjoy the public space. May spend less as will stay only for duration that is needed for shopping.	✓ No further room for tree planting as footpaths retained at 3 metres.	✓ Parking available at rear of shops on northside and southside.
	✓ No dedicated cycle lanes, but residual benefit from peak hour bus lanes and increased room outside of peak time.	✓ No dedicated cycle lanes, but increased room outside of peak time.	✓ Removal of parking to prioritise the bus means more people can travel per vehicle to Riccarton (average bus can hold up to 50 passengers).	✓ Over-dimension designation would remain.	✓ On-street loading and short-term parking provided on southern side.
Option 2 - Streetscape Improvements to Remove Side Friction (limited on-street parking)	✓ Journey time steady as no priority. Reduced side friction should ease flow (Parking and other forms of side friction in complex environments slows vehicle speeds). ²	✓ Pedestrians can use the median to undertake informal crossings along the street.	✓ Increase support for local businesses through improved pedestrian spaces to increase foot traffic. Well-planned improvements to public spaces can boost footfall and trading by up to 40%. ³	✓ Yes increase public space areas allowing for improvements to planting and landscaping.	✓ On-street loading and short-term parking provided on northside and southside.
	✓ Delays to general traffic, but parallel corridor (Blenheim Road) available for through traffic and large goods vehicles.	✓ Reduced vehicle speed by enhancing the surroundings. Reduced severity if crash occurs.	✓ Better streets attract more people. Improve quality of Riccarton Road shopping experience by improving the streetscape on the south side (bumy side).	✓ Over-dimension designation would need to be removed. Alternative route is Blenheim Road.	✓ Parking available at rear of shops on northside and southside.
Option 3 - Peak hour bus lane inbound and streetscape improvements on southern side.	✓ Improved bus journey reliability times in peak times. Westbound bus journey time steady as no priority with reduced side friction that should ease flow.	✓ Pedestrian crossing distances increased as build outs removed on north side.	✓ Increase support for local businesses through improved pedestrian environment to increase foot traffic on the southside. Well-planned improvements to public spaces can boost footfall and trading by up to 40%. ³	✓ Yes increase public space areas allowing for outdoor dining, seating areas and improvements to planting and landscaping on south side only.	✓ Smaller number of on-street loading and short-term parking provided at all times to reduce side friction for bus movements on south side. Parking available on north side outside of peak times. Parking available at rear of shops on northside and southside.
	✓ Delays to general traffic, but parallel corridor available for through traffic and large goods vehicles.	✓ No dedicated cycle lanes, but residual benefit from peak hour bus lanes and increased room outside of peak time on northern side. Wide traffic lane on southside.	✓ Better streets attract more people. ⁴ Improve quality of Riccarton Road shopping experience by improving the streetscape on the south side (bumy side).	✓ Over-dimension designation would remain.	✓ Parking available at rear of shops on northside and southside.

¹ Protected Bike Lanes Mean Business (How 21st Century Transportation Networks Help New Urban Economies Boom), People for Bikes and Alliance for Biking and Walking
² Appraisal of Shared Space
³ The Pedestrian Pound (The Business Case for Better Streets and Places), Sustrans
⁴ Re-allocation of Road Space, NZTA
⁵ The Pedestrian Pound (The Business Case for Better Streets and Places), Sustrans
⁶ The Economic Benefits of Sustainable Streets, New York City, Department of Transport

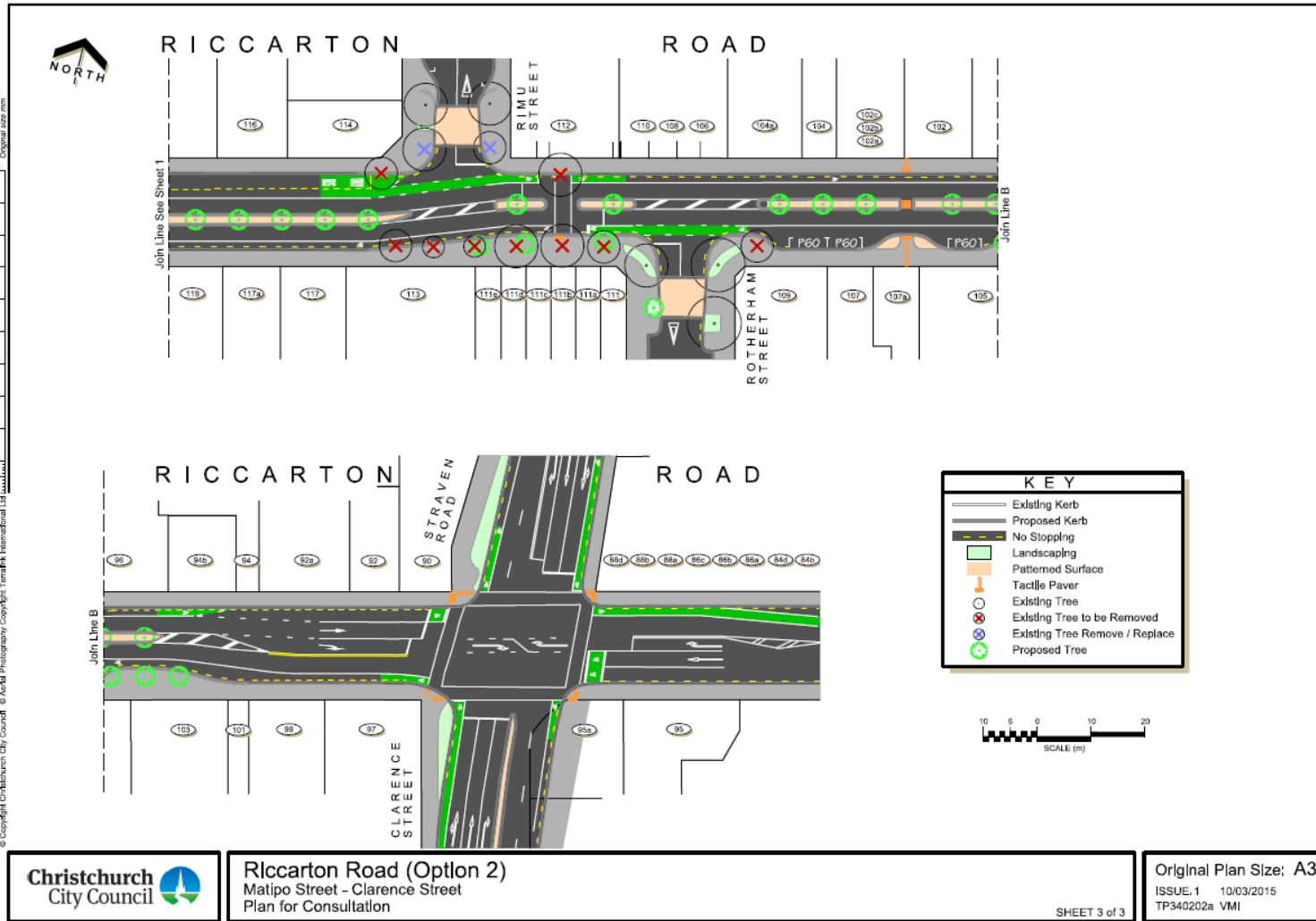
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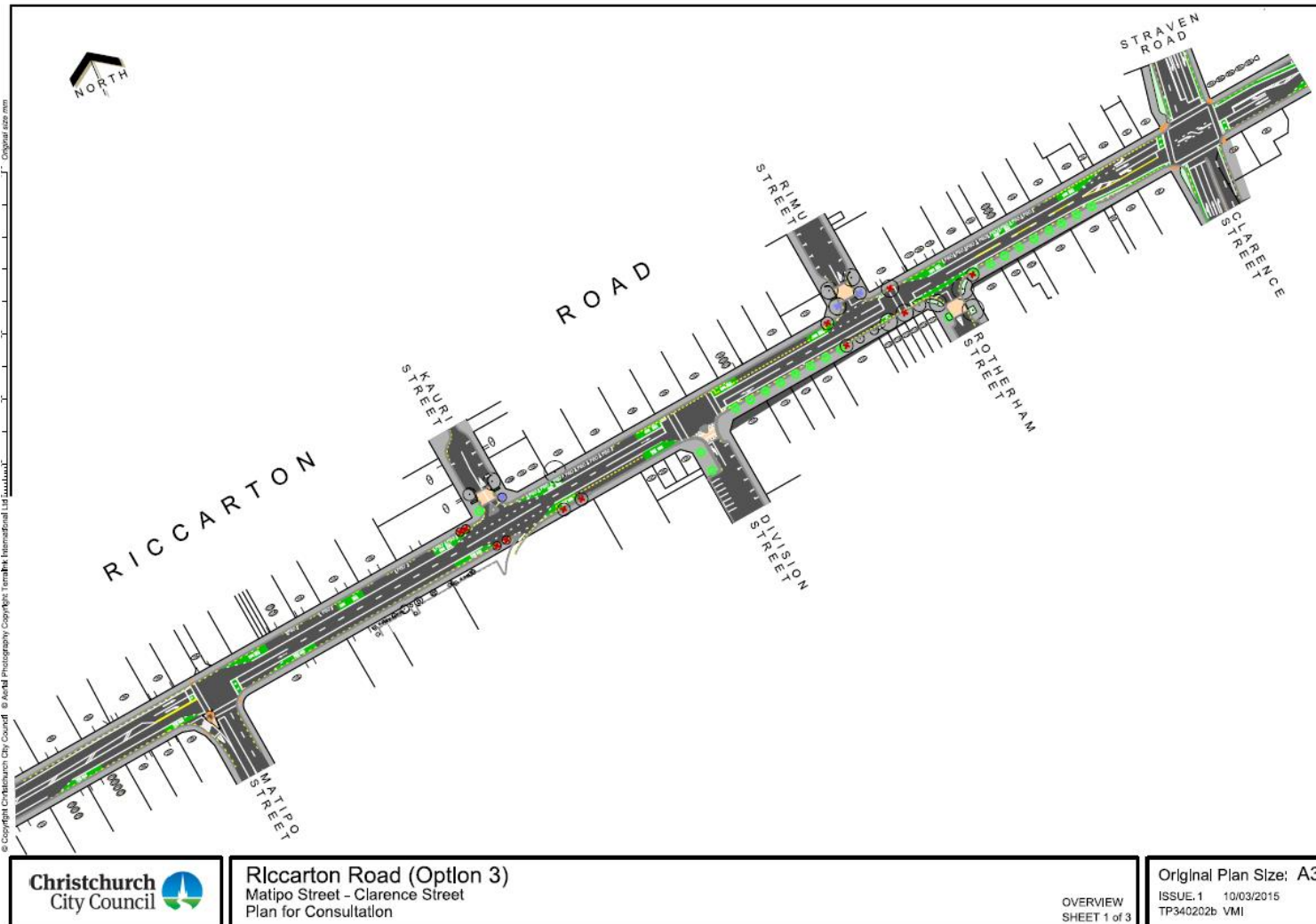
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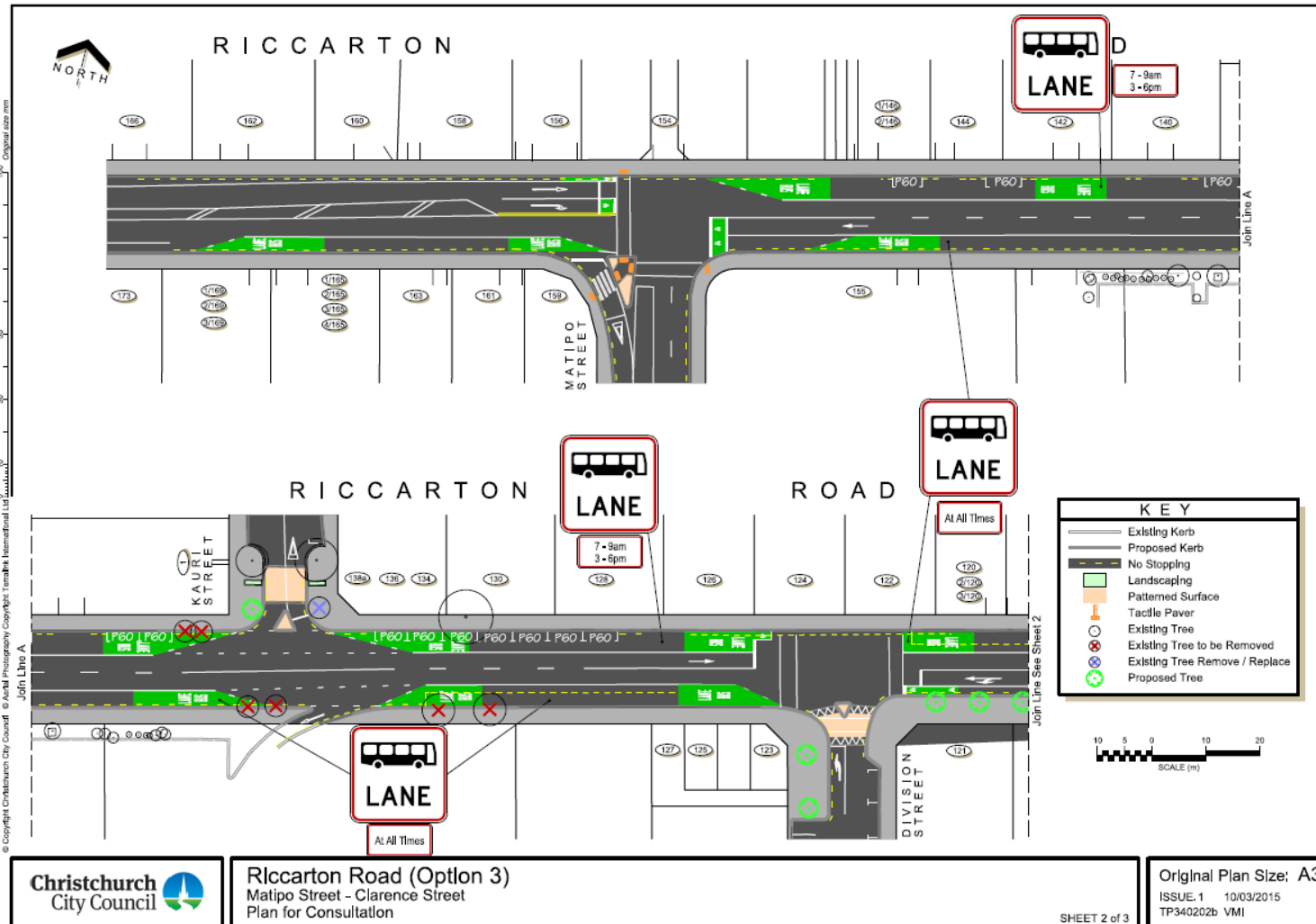
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ATTACHMENT 6 TO CLAUSE 1



ATTACHMENT 6 TO CLAUSE 1 CONT'D



**REPORT BY THE CHAIRPERSON OF THE
HAGLEY/FERRYMEAD COMMUNITY BOARD
18 MARCH 2015**

PART A – MATTERS REQUIRING A DECISION FROM THE INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE

1. RICcarton ROAD BUS PRIORITY PROJECT - CONSULTATION

		Contact	Contact Details
Executive Leadership Team Member responsible:	General Manager, Culture Leisure & Parks	N	
Officer responsible:	Unit Manager,	N	
Author:	Philip Basher Transport Policy Engineer – OP Assets & Network	Y	941 8605

1. PURPOSE AND ORIGIN OF REPORT

- 1.1 The report outlines the proposal to consult on the on-street measures for bus priority on Riccarton Road between Deans Avenue and Matipo Street and presents the Hagley/Ferrymead Community Board’s view on the consultation plan.
- 1.2 The 20 March 2014 Meeting of the Environmental Committee resolved to:
 - 1.2.1 Request that staff investigate bus priority measures along Riccarton Road.
- 1.3 A public excluded seminar was held on 19 December 2014 to enable staff to engage with the elected members of the Infrastructure, Transport and Environment Committee, Riccarton/Wigram and Hagley/Ferrymead Community Boards on the bus priority measures proposed for Riccarton Road. The elected members were advised that both Community Boards and the Committee will have the opportunity to consider the proposed consultation through reports.

2. EXECUTIVE SUMMARY

- 2.1 This Part A report provides details of the consultation plan for the Riccarton Road Bus Priority Project specifically limited to the remit of the Hagley/Ferrymead Community Board. As the Riccarton Road Bus Priority Project is considered to be of Metropolitan significance the final decision will be taken by the Infrastructure, Transport and Environment Committee on 2 April and the Community Board’s recommendations reported to the Committee.
- 2.2 For the purposes of this report the remit of the Hagley/Ferrymead Community is limited by the ward boundary to the approaches on Riccarton Avenue and the proposed signalisation of the Riccarton Road/Avenue and Deans Avenue intersection. The plan for consultation is **attached**. The Community Board will advise the Infrastructure, Transport and Environment Committee formally for Stage 1 Deans Avenue to Matipo Street bus priority measures through this Part A report.

3. BACKGROUND

- 3.1 The proposed bus priority project on Riccarton Road (between Matipo Street and Deans Avenue) is an integral part of the city’s overall public transport network and essential for the recovery of the network post-earthquake. Riccarton Road is the busiest bus corridor in the City and this status is endorsed by recent policies and strategies:

1. Cont'd

- 3.1.1 Regional Passenger Transport Plan (RPTP), Environment Canterbury (Ecan) 2014 – 2024. The Regional Public Transport Plan introduces a new operational model for the city's public transport network, based on a "hubs and spokes" approach. The system relies on the establishment of a series of suburban interchanges where feeder services will link passengers on to the core high frequency service routes.
- 3.1.2 The Christchurch Transport Strategic Plan (CTSP), Christchurch City Council (CCC) 2012 – 2042. The CTSP confirms support for the principles of the RPTP and the new "hubs and spokes" model, and identifies Riccarton Road as a key public transport corridor.
- 3.1.3 Greater Christchurch Transport Statement (GCTS) UDS Partnership, 2012. The GCTS, identifies public transport and priorities measures as one of the top priorities for recovery and future growth of the city.
- 3.1.4 Three Year Plan (TYP); CCC 2013/16 plus the Crown/Council funding agreement covers the anchor projects in the central city, one of which is the Public Transport interchange and directly associated improvements to Metro services outside the central city which includes the Riccarton Road Bus Priority.
- 3.1.5 An Accessible City (Canterbury Earthquake Recovery Authority) 2013. The transport chapter of the Central Christchurch Recovery Plan highlights the importance of the core public transport routes coming into the City from the North and West. Riccarton (Westfield) is a key hub for bringing in passengers from the western suburbs and the University to meet the core routes to and through the central city as well as transfers onto the orbital services. Ten of the city's core bus routes pass through this interchange.
- 3.2 The Council's Three Year Plan (TYP) for 2013-16 and the Crown/Council Funding agreement identifies funding for the Riccarton Road bus priority measures as integral to the success of the Central City Public Transport interchange project.
- 3.3 The bus priority and associated traffic measures outlined in this report have been designed and modelled based on the principles of the Riccarton Road Corridor Study. The study identified measures for the Riccarton Road corridor that will improve reliability and reduce journey times for public transport.

4. COMMENT

Bus Priority Scheme

- 4.1 A number of scheme options have been considered based on previous studies including the Riccarton Corridor study. This has led staff to deduce that the proposed Riccarton Road Bus Priority scheme can be divided into two key components:
 - 4.1.1 Deans Avenue – Clarence Street/Straven Road.
 - 4.1.2 Riccarton Town Centre – Clarence Street/ Straven Road – Matipo Street (which lies outside the remit of the Hagley/Ferrymead Community Board.

Deans Avenue – Clarence Street/Straven Road

- 4.2 This section of the Riccarton Road Corridor is considered more suitable for conventional bus priority and other traffic improvement measures which can be summarised as:

1. Cont'd

- 4.2.1 Deans Avenue/Riccarton Road/Riccarton Avenue intersection to be signalised with bus lanes on the eastern and western approaches. The bus lanes on the approach to the intersection are to operate as full time bus lanes.
 - 4.2.2 Part time (both peak hours 0700 – 0900 hours and 1500 – 1800 hours) bus lanes for westbound buses between the Deans Avenue/Riccarton Road/Riccarton Avenue and the Riccarton Road/Picton Avenue intersection.
 - 4.2.3 Most on-street parking will be maintained although some car parks will not be available during the operational hours of the bus lanes. In the sections of permanent bus lane, four car parks will be permanently removed for the eastbound lane on the approach to Deans Avenue, there are no proposals to remove parking for the permanent westbound bus lane on Riccarton Avenue, however 15 car parks are removed for the intersection works, and eight car parks will be permanently removed for the westbound bus lane on the approach to Clarence Street.
- 4.3 Traffic modelling has been undertaken to assess the option, and the scheme has been through the safety audit process for the scheme stage, and will continue through the process as schemes evolve into detailed design.

Consultation plan summary

- 4.4 The objectives for the consultation and engagement process are:
- 4.4.1 To ensure all relevant stakeholders are informed at appropriate stages of the project of its purpose, aims and timeframes.
 - 4.4.2 To provide an appropriate process for feedback/discussion and a contact point for any input or concerns.
 - 4.4.3 To ensure all submitters are aware of the process, procedure and parameters around the decision-making process.
 - 4.4.4 To advise submitters of the final concept and how consultation feedback has influenced the plan.
 - 4.4.5 To inform submitters of the final decision if it varies significantly from the final proposal.

Consultation scope

- 4.5 Consultation will be carried out within the following framework:
- 4.5.1 Bus Priority is needed on Riccarton Road to meet Ecan operational requirements for its new greater Christchurch bus network.
 - 4.5.2 Bus Priority on Riccarton Road is also required to ensure the successful operation of the new central City Exchange and the associated super stops on Manchester Street and at the Hospital Corner.
 - 4.5.3 The passenger lounge and associated bus stops have been confirmed as part of an earlier consultation and decision making process.
 - 4.5.4 The proposal is restricted to the legal road boundaries.

1. Cont'd

Consultation plan

- 4.6 The project team is working together with Ecan staff to develop an integrated plan for consultation and communications. The stakeholder list will include businesses and property owners, bus users, residents, and key interested organisations and community. The consultation plan includes:
- 4.6.1 Contacting key stakeholders such as business leaders and community groups ahead of the formal consultation period for preliminary engagement and information sharing.
 - 4.6.2 Community consultation will be via a Council Have Your Say on the web site and leaflet with either a paper or electronic feedback form. It will also be supported by posters and other publicity and educational material.
 - 4.6.3 Leaflets and fliers will be hand-delivered to adjacent residents and businesses, and mailed to property owners and the wider area and stakeholder list.
 - 4.6.4 The planned four week consultation period starting in April 2015 will include three drop-in information sessions, two of which will target different sections of the route (Deans to Clarence, Clarence to Matipo), while welcoming general interest, feedback and questions. The third drop in session will cover the whole route.
 - 4.6.5 The consultation period allows for additional meetings with stakeholders and community groups, email, and phone calls.
 - 4.6.7 Submitters will be sent the final plan, a summary of consultation feedback and response including changes made as a result of consultation, and details of the meeting ahead of the final decision.

Community Board input to consultation

- 4.7 A joint seminar with the Riccarton/Wigram and Hagley/Ferrymead Community Boards and the Infrastructure, Transport and Environment Committees was held on 19 December 2014 to introduce the project before a preferred option was developed by the project team.
- 4.8 The issues raised and project team responses were then circulated ahead of a seminar with Riccarton/Wigram Community Board and the Infrastructure Transport and Environment Committee on 18 February 2015, and a separate seminar for the Hagley/Ferrymead Community Board on 16 March. The purpose of the seminars was to gain feedback on the three options and to explain the preferred option, before the report was considered.
- 4.9 Formal Riccarton/Wigram and Hagley/Ferrymead Community Board input to the plan to consult will be via Part A report recommendations to the Infrastructure Transport and Environment Committee decision. Riccarton/Wigram Community Board considered this issue on 17 March and the Hagley/Ferrymead Community Board on 18 March. The Infrastructure, Transport and Environment Committee will consider this matter at the meeting on 2 April.

Communications

- 4.10 Council and Environment Canterbury communications staff are working together on key messages, frequently asked questions, online material and social media posts that align with bus system milestones. The joint agency communication aims are to:
- 4.10.1 Focus public understanding of and support for the benefits of bus priority.

1. Cont'd

- 4.10.2 Inform residents/property/business owners, commuters and the general public and manage their queries and expectations.
- 4.10.3 Engage with key stakeholders from the outset to explain how bus priority fits into the city-wide network changes and the benefits.
- 4.10.4 Brief key people and agencies, to manage their expectations and ensure they have the chance to express their views.
- 4.10.5 Prepare public information, for example messaging, media release, questions and answers.
- 4.10.6 Partner on project communications.

5. FINANCIAL IMPLICATIONS

- 5.1 Funding has already been allocated for the Riccarton Road Public Transport project as part of the Crown/Council Funding Agreement and is included the Annual Plan for 2014 - 2015.

6. STAFF RECOMMENDATION

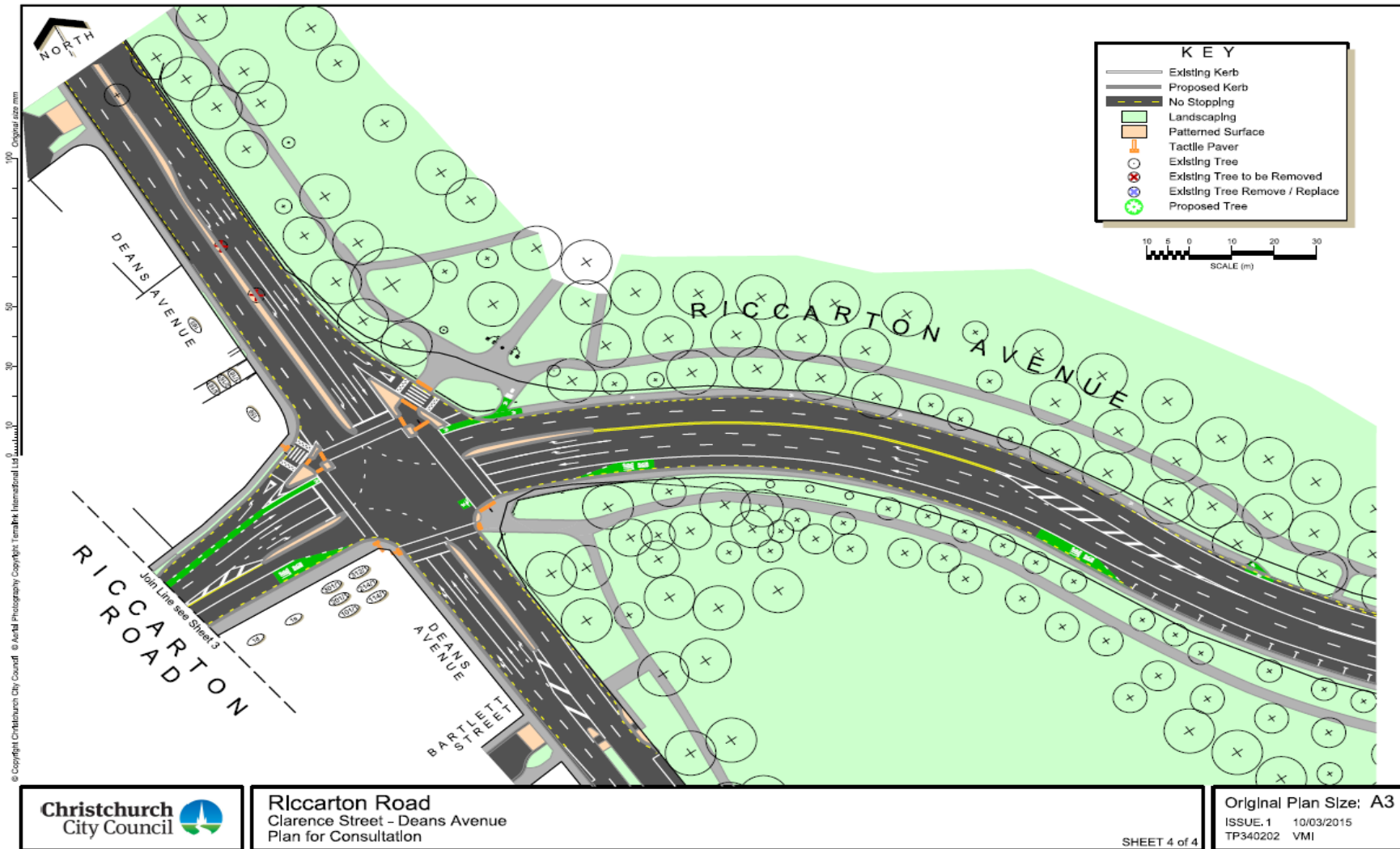
That the Infrastructure, Transport and Environment Committee:

- 6.1 Instruct staff to proceed with community and stakeholder consultation on the proposed Riccarton Road bus priority proposals as outlined in paragraph 4.2 in respect of the area of interest for the Hagley/Ferrymead Community Board, the Riccarton Avenue approaches and the Deans Avenue/Riccarton Road and Avenue intersection.
- 6.2 Instruct staff following the conclusion of the consultation process that the analysis of the outcomes and responses and any amendments to the concept designs shall be reported to the Hagley/Ferrymead Community Board by a Part A report. The Community Board recommendations will then pass onto the Infrastructure, Transport and Environment Committee for consideration.

BOARD RECOMMENDATION

The Board **decided** to recommend to the Infrastructure, Transport and Environment Committee that the staff recommendation be adopted.

ATTACHMENT TO CLAUSE 1



INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE - 2. 4. 2015

6. AN ACCESSIBLE CITY – FIRST PHASE TRANSPORT PROJECTS: HOSPITAL CORNER STAGE 2 (FINAL LAYOUT), DURHAM STREET / CAMBRIDGE TERRACE (SECTIONS) AND MANCHESTER STREET (SECTIONS)

		Contact	Contact Details
Executive Leadership Team Member responsible:	Chief Planning Officer	N	
Officer responsible:	Transport and Research Unit Manager	Yes	8407
Authors:	Tim Cheesebrough & Jennie Hamilton	As above	As above

1. PURPOSE AND ORIGIN OF REPORT

- 1.1 This report seeks a recommendation from the Infrastructure, Transport and Environment Committee that the Council approves consultation on the draft concept designs for three *An Accessible City* First Phase Transport Projects: TP1b - Hospital Corner Stage 2 (final layout), including sections of Hagley Avenue, St Asaph Street, Tuam Street and Antigua Street; TP3 - Durham Street / Cambridge Terrace – from Kilmore Street to Tuam Street, and TP4 - Manchester Street – from Kilmore Street to Lichfield Street.
- 1.2 The report arises from the following Council resolutions on 22 May 2014:
- (26.1) Support the proposed changes to the First Phase programme of An Accessible City transport projects as outlined in the report to the Earthquake Recovery Committee of the Whole and within the original cost sharing Agreement between Council and the Crown.*
- (26.3) Approve public and stakeholder engagement over the design concepts for the amended First Phase programme of Accessible City projects identified in this report, other than for Transport Project 4 - Manchester Street.*
- 1.3 The Council meeting on 11 September 2014 noted that:
- 25.1.2 It is proposed that a further briefing to Councillors will be undertaken on Transport Project 3 (Cambridge / Durham) and Transport Project 4 (Manchester Street) prior to any consultation starting.*
- 25.1.3 Significant aspects of the proposed concept designs for Transport Projects implement An Accessible City and the Council's provision for the works in the Three Year Plan and the Annual Plan, and that the scope of reasonably practicable options available for these works is limited as a result of the Council's obligations under the Canterbury Earthquake Recovery Act and the provisions in the Recovery Plan.*
- 1.4 Development of concept designs for the three projects considered by this report, and initial engagement with key stakeholder groups, has been led by the Canterbury Earthquake Recovery Authority (CERA), supported by the Council. Previous First Phase *An Accessible City* transport projects – 1a (Hospital Corner: Stage 1 early works), 5 (Hagley / Moorhouse Corner), 9 (Tuam Street), 10 (Lichfield Street) and 11 (Colombo Street) - were led by the Council, working closely with CERA.

Significance and engagement

- 1.5 The decision to be made is not of high significance. The proposed changes are part of the transformation of the Central City travel network designed to make better use of public spaces for all transport choices. While that proposed transformation is of high significance as it will affect a significant proportion of Christchurch residents who drive, walk, cycle, or travel on buses to and within the inner city, the report is only seeking approval to consult (not implement) the proposed changes. Also, as outlined below the proposed changes to the transport network have been foreshadowed in other decisions and documents.

6 Cont'd

- 1.6 The Central City Recovery Plan provides for key components of the proposed changes, also key elements of the three projects, such as the creation and direction of one-way and two-way streets and the creation of new bus only lanes on Manchester and Tuam Streets, were gazetted by the Minister for Canterbury Earthquake Recovery on 11 December 2014. Using section 27 of the Canterbury Earthquake Recovery Act the Minister amended the Christchurch City Council Traffic and Parking Bylaw 2008 and the Christchurch City Council Speed Limits Bylaw 2010. Previous Council decisions have also already determined key parts of the transformation.
- 1.7 Accordingly, the decisions sought here are not of high significance as they relate to consultation on implementation of detail of the changes. Feedback is proposed to be sought on the detail of changes to the road corridor layouts and some aspects of traffic operations for each of these three schemes in accordance with section 76 of the Local Government Act 2002. These changes affect matters such as parking, intersection layouts and associated operational changes, cycle and pedestrian facilities and servicing access to local businesses.
- 1.8 Wide ranging consultation with affected property and business owners, citywide residents' groups and other key stakeholders, including emergency services and those with mobility and vision impairments, is planned. This will be supported by various forms of media coverage and signage to reflect the high significance of the three projects. The concept / consultation plans for each project can be viewed in **Attachment 1**.
- 1.9 All stakeholder feedback will be considered before the consultation concept plans are reviewed and presented along with an analysis of that feedback to the Infrastructure, Transport and Environment Committee, and subsequently the Council, for approval.

2. EXECUTIVE SUMMARY

- 2.1 The Council considered a report on *An Accessible City* – Revised First Phase Transport Projects at its meeting on 22 May 2014. The purpose of that report was to revise the first phase transport projects so they better aligned with early key anchor projects, particularly the opening of the new Bus Interchange in mid 2015, and to secure approval to begin consultation on these projects.
- 2.2 Some components of the proposed changes contained in this report are outlined in the Christchurch Central Recovery Plan, in particular the *An Accessible City* section, including the creation of the East Frame and eastwards widening of a section of Manchester Street between Armagh and Lichfield Streets to create a bus priority boulevard. Also, *An Accessible City* contained matters such as the intended traffic direction on Tuam Street, the placement of the Hospital Corner and Manchester Street super stops and the new two-way traffic operation on a section of Durham Street between Lichfield and Tuam Streets. A number of these matters were later confirmed by the Minister under section 27 of the Canterbury Earthquake Recovery Act in the gazetted changes to the Council's relevant traffic, parking and speed limit Bylaws. However, the detail of the streetworks and transport network changes (for example, alterations to car parking and access arrangements, and changes to intersection traffic signals) are not.
- 2.3 This report outlines the details of the proposed streetworks and associated traffic network changes for consultation for the following First Phase Transport Projects: 1B (Hospital Corner – Stage 2 final layout), 3 (Durham Street / Cambridge Terrace – Kilmore to Tuam streets) and 4 (Manchester Street - Kilmore to Lichfield streets).

6 Cont'd

3. COMMENT

- 3.1 In May 2014 the Council approved the revised *An Accessible City* First Phase Transport Projects. **Attachment 2** outlines the general location of the proposed projects and key changes to the programme approved at that time. On 7 August the Council's former Earthquake Recovery Committee of the Whole endorsed details of the consultation for Transport Projects 1a (Hospital Corner: Stage 1 early works) and 5 (Hagley / Moorhouse Corner) - and on 11 September endorsed details of the consultation for Transport Projects 9 (Tuam Street), 10 (Lichfield Street) and 11 (Colombo Street). This report focuses on three of the remaining five transport projects to complete the First Phase Transport programme. All of the Transport Projects have been developed from *An Accessible City*, which is the transport chapter of the Recovery Plan. Decisions on transport matters in the Central City cannot be inconsistent with *An Accessible City*, and therefore components of the proposed concept designs that are the subject of this report have been directed by that document and the Recovery Plan itself, and later confirmed and gazetted by the Minister through section 27 of the Canterbury Earthquake Recovery Act.
- 3.2 Specifically the Minister, using section 27 of the Canterbury Earthquake Recovery Act to amend the Christchurch City Council Traffic and Parking Bylaw 2008 and the Christchurch City Council Speed Limits Bylaw 2010, confirmed and gazetted the following in December 2014:
- Tuam Street one-way west to east with a westbound bus lane from Antigua Street to Hagley Avenue
 - Lichfield Street from Oxford Terrace to Fitzgerald Avenue to convert from one-way to two-way
 - Oxford Terrace one-way from Riccarton Avenue to Manchester Street (eastbound between Riccarton Avenue and Antigua Street), with shared zones, permitting continued access by cyclists and local access vehicles
 - Durham Street South to remain one-way but with a two-way section between Lichfield Street and Tuam Street
 - Cambridge Terrace one-way in a westerly direction from Kilmore Street to Manchester Street
 - St Asaph Street one-way in a westerly direction from Madras Street to Hagley Avenue
 - Worcester Street (Manchester Street to Madras Street) to become a shared zone
 - Cashel Street (Manchester Street to Madras Street) to become a shared zone
 - A new street between Lichfield Street and Gloucester Street (through the East Frame) to be a shared zone
 - Bus-only lanes to be created on Manchester Street between Armagh Street and Lichfield Street, and Tuam Street between Hagley Avenue and Antigua Street
 - Creation of a Central City maximum 30 kilometres per hour speed zone.

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Transport Project 1B - Hospital Corner Stage 2 (final layout)

3.3 This is the second stage of changes and the final layout proposal for the transport network and streetscape alterations around Hospital Corner. It includes finalising works associated with the new eastbound one-way layout on Tuam Street, from Oxford Terrace to just east of Durham Street South, and the complementary one-way westbound St Asaph Street route. The proposals also affect sections of Hagley Avenue, Antigua Street and Montreal Street. Stage 1A works began in late 2014 to support the opening of the Bus Interchange in mid 2015 and the current development of Te Papa Ōtākaro / Avon River Precinct. At the time of writing, the majority of those key network routing changes in this area had been implemented. While, as outlined below, this project does propose to remove a number of existing street trees and on-street carparking spaces it also proposes significant new landscaping, enhanced pedestrian and active travel infrastructure. It will also enable the new bus super stop on a widened section of Tuam Street between Hagley Avenue and Antigua Street. It is proposed to brief councillors on the design of the bus stop shelters when the draft concept designs have been completed. The project will also create new and improved cycle and pedestrian facilities on those local streets including Tuam, St Asaph and Antigua Streets, along with Hagley Avenue and the Tuam Street intersections with Montreal and Durham Streets.

3.4 The following key features are proposed in each block:

Tuam Street

- Hagley to Antigua: as the western gateway into the proposed slow core, bus stops are provided either side of this widened section of Tuam Street to form a new bus super stop. Two general traffic lanes will be provided eastbound, one 'contraflow' bus lane westbound separated by a tree planted median strip with wide footpaths on both sides. This southern section of Tuam Street westbound between Antigua Street and Hagley Avenue is intended for exclusive bus use but will, however, remain accessible to westbound emergency service vehicles.
- The combined proposals for this section of Tuam Street will involve the removal of 21 existing trees shown on the consultation plans. A detailed arborist's report, which will be circulated separately to elected members because of its size, indicates that two notable English oak trees (CCC ID 3296 and 3297) will need to be removed on the northern side of Tuam Street to make way for the super stop. Tree 3297 requires removal to accommodate the super stop but 3296 needs to be removed as it would be unstable following the removal of tree 3297. These trees are currently on Canterbury District Health Board (CDHB) land but land purchase for the super stop will result in tree 3297 being on road reserve. Both trees are classified as being in 'fair' overall condition. In addition to these, a group of nine pin oaks located on the northern side require removal. They too are classified as being in 'fair' overall condition. Ten trees are to be removed on the southern side of Tuam Street to make way for the super stop. Nine of the 10 trees affected by the proposal are protected by the conditions of a prior subdivision resource consent. These trees range from 'good' (5) to 'fair' (4) overall condition.
- The nearby section of Oxford Terrace in Te Papa Ōtākaro / Avon River Precinct will be available for local pedestrian and cycle movements together with some limited parking and servicing arrangements to frontage land uses. These details for Oxford Terrace will be addressed later in scheme designs for that section of Te Papa Ōtākaro / Avon River Precinct, which are not the subject of this consultation.
- Antigua to Durham: two eastbound general traffic lanes with a short section of dedicated bus lane, on-street parking and loading on the south side (primarily short stay), a new separated one-way cycle lane eastbound on the north side of the street. The proposals include additional broad-leaved lime trees (*Tilia platyphyllos*), with the plans showing the removal of some existing trees adjacent to the super stop. Other trees are also expected to be affected by the proposed adjacent Health Precinct developments. There will be further landscaping and footpath upgrades.

6 Cont'd

Montreal Street:

- Two general northbound traffic lanes at mid-block locations with an additional turning lane south of Tuam Street, new crossing facilities for pedestrians and cyclists, together with general traffic access arrangements to accommodate crossing and access activity associated with Te Papa Ōtākaro / Avon River Precinct (a separate project) at Oxford Terrace. On-road cycle lanes on the western side.

Antigua Street

- Oxford to Tuam: one traffic lane in each direction with a short left turn lane to Tuam Street, P5 parking on the west side for future outpatient pick up and drop off, a shared path on the west side connected to Te Papa Ōtākaro / Avon River Precinct turning circle on Oxford Terrace, additional street trees and local footpath upgrades. Avon River Precinct works beyond the proposed small roundabout at Antigua / Oxford Terrace are not part of this project.
- Tuam Street to St Asaph Street: one traffic lane in each direction separated by a raised median, right turn lane to St Asaph Street, northbound bus only left turn lane onto Tuam Street, new shared pedestrian and cycle path on the east side, no parking throughout. Footpath enhancements.

St Asaph Street

- Antigua Street to Hagley Avenue: two traffic lanes westbound, a new shared cycle / pedestrian path on the south side (across the frontage of the proposed Metro Sports Facility) linking to the signalled crossing of Hagley Avenue and the new Hagley Park cycle / pedestrian shared path (delivered under TP5). Additional street trees, landscaping and footpath upgrades, with the proposed removal of three existing small street trees, two of them in poor health. A further tulip tree, outside Hagley College, is currently being assessed as its health is marginal, according to the arborist.
- Crossing facilities for cyclists and pedestrians across St Asaph Street, will be considered further in order to link the proposed Metro Sports facility and South Frame/ Health Precinct with the local cycle and pedestrian network and Te Papa Ōtākaro / Avon River Precinct. These will be detailed at a later date as part of those local precinct and anchor project developments.

Hagley Avenue

- St Asaph Street to Tuam Street: two traffic lanes northbound (to approach Riccarton Avenue), with an additional right turn lane onto Tuam Street. One lane southbound, flush median strip, and some minor tree planting enhancements adjacent to the St Asaph Street intersection.

On Street Parking Effects

- The above proposed streetworks, tree planting and landscaping enhancements require the proposed removal of 114 existing on-street parking spaces. The remaining on-street parking is proposed to be prioritised for short stay parking, servicing, loading and disabled spaces.

6 Cont'd

Transport Project 3 – Durham Street / Cambridge Terrace

- 3.5 This Transport Project looks to renew both Cambridge Terrace and Durham Street between Kilmore Street and Tuam Street. Durham Street is currently one-way southbound and forms part of the western north / south one way pair of main distributor streets with Montreal Street. The project intends to retain the majority of Durham Street as a one-way southbound road with two traffic lanes. The only section that will significantly differ in traffic network functionality is the part of Durham Street between Tuam Street and Lichfield Street / Oxford Terrace, where a new two-way section of street is proposed to allow a single northbound traffic lane to access Lichfield Street and the proposed parking buildings to be located there. The new northbound lane will also permit servicing access to be maintained to Oxford Terrace premises between Durham Street South and Montreal Street for traffic approaching from the south and west. Limited road widening is required for this section of Durham Street and the additional land for this has been acquired from the new adjacent Justice and Emergency Services Precinct.
- 3.6 Eighty existing on-street parking spaces will need to be removed to enable improved facilities for pedestrians and cyclists and improved landscaping with passive stormwater treatment on the corridor. As with the other *An Accessible City* transport projects, the design seeks to minimise these losses as much as possible. Effects on on-street parking availability and servicing capability to local land uses will be made clear through the consultation drawings and stakeholder briefings.
- 3.7 The project is adjacent to Te Papa Ōtākaro / Avon River Precinct, the Park of Remembrance, the Justice and Emergency Services Precinct and the historic Canterbury Provincial Council Buildings. Design proposals have paid particular attention to ensure sympathetic visual and physical links to these significant places and the plans have been carefully integrated so these important projects are co-ordinated. Particular care has been taken to minimise the impact on mature tree specimens located along the corridor. Three trees (at 280 Durham Street North (1) and 26 Lichfield Street (2)) will require removal to accommodate these works and are shown on the consultation plans. Two additional trees (293 Durham Street North and 1/93 Cambridge Terrace) may have to be removed if excavation of existing kerb and channel destabilises them. The arborist in his report has noted that the two trees may be using the kerb and channel to support their structural roots. New trees will be planted throughout the corridor and the indicative locations for these (subject to detailed design) are shown on the concept plans.
- 3.8 The Cambridge Terrace / Durham Street corridor has a number of large mature trees along its eastern side. While the works don't require their removal, seven trees will need specific design to protect the area around their roots and a further 27 trees will require care during construction to avoid unnecessary compaction of the root zone.
- 3.9 In relation to the project there are the following key features in each block:
- Kilmore to Armagh: two southbound traffic lanes (with additional turning lanes at the intersection), on-street parking, on-road cycleway on the east side, and footpaths. Some new street trees.
 - Armagh to Gloucester two southbound traffic lanes (with additional turning lane at the intersection), a four metre wide shared pedestrian / cycle path on the east side outside the Provincial Council Buildings, and a standard footpath on the west side. A P10 parking space is also proposed adjacent to the Provincial Council Buildings to support activities there on reopening. New mobility impaired and short stay parking is provided on the nearby Armagh Street approach. Some new street trees, with the proposed removal of one existing tree at the Gloucester Street intersection.

6 Cont'd

- Gloucester to Worcester: two southbound traffic lanes (with an additional turning lane at the intersection), a new four metre wide shared pedestrian / cycle path on the east side, on-street parking on the west side and footpath enhancements. Some new street trees and landscaping – mainly on the east side. Worcester to Cashel: two southbound traffic lanes mid block (with turning lanes at intersections), a new four metre wide shared cycle / pedestrian path on the east side, on-street parking on the west side and footpath enhancements. Some new street trees on both sides of the street.
 - Cashel to Lichfield: two southbound traffic lanes (with an additional left turn lane at the intersection with Lichfield Street), on road southbound cycle lane (south of Cashel Street, where the separated facility meets with the Avon River Precinct routes from the west), a new signalised crossing point mid block to connect to Te Papa Ōtākaro / Avon River Precinct.
 - Lichfield to Tuam: two southbound traffic lanes (with an additional left turn lane at the intersection with Tuam Street), a new single northbound lane (to provide access to the new Retail Precinct accessed via Lichfield Street, and Oxford Terrace premises to the west), on-road southbound cycle lane, footpath enhancements and a new pedestrian crossing south of the Lichfield Street intersection. Southbound left turn only exit availability from the adjacent Oxford Terrace to Lichfield Street. Removal of two existing street trees at the corner of Lichfield Street and Durham Street South.
 - A loading zone is provided for the Justice and Emergency Services Precinct.
 - The section of Oxford Street that intersects with Lichfield Street on its north side, adjacent to the intersection with Durham Street South, is a shared zone and has a left turn only exit on Lichfield Street, eastbound.
- 3.10 The new cycle facilities to be constructed along Durham Street for the majority of the length of this scheme connect to the planned cycle facilities on Tuam Street along the river from Hospital Corner and the planned Te Papa Ōtākaro / Avon River Precinct cycleway.

Transport Project 4 – Manchester Street (Kilmore Street to Lichfield Street)

- 3.11 This project seeks to establish Manchester Street as a tree-lined boulevard, with priority for buses and high quality public spaces, along with vehicle access to local properties. To create a well planted boulevard streetscape, and ensure room for buses and pedestrians, Manchester Street will be widened by 9 metres (to 29 metres) between Armagh and Lichfield streets, in conjunction with the adjacent new East Frame development.
- 3.12 Manchester Street is designed primarily in traffic terms to ensure north – south bus movements are prioritised and can therefore provide a reliable and efficient service to and from the new Interchange (located south of Lichfield Street), and secondly to accommodate local traffic movements within a substantially enhanced tree-lined street.
- 3.13 The design is based on *An Accessible City's* road use hierarchy, whereby general traffic from the Avenues and eastern side of the Central City uses the main distributor streets of Madras Street or Barbadoes Street, and the east-west distributors of Gloucester Street and Hereford Street, to access destinations in the City Centre.
- 3.14 Turning movements on Manchester Street are retained at the intersections with the local distributor streets of Gloucester, Hereford and Lichfield (west), but restricted at other intersections to prioritise public transport and make the most efficient use of the transport network. These proposed turning restrictions are made clear on the consultation plans and accompanying public consultation booklet. The proposals also entail the removal of 51 existing on street parking spaces throughout the corridor, with the remaining proposed spaces prioritised for short stay parking, loading, servicing and disabled parking needs.

6 Cont'd

- 3.15 The proposed scheme design uses traffic signal controls at a number of the intersections and adjacent to the new bus super stop to ensure northbound and southbound buses have priority. This is to ensure the targeted levels of service for bus services (primarily corridor journey times and predictability) are achieved. Modelling has shown that for projected traffic and bus volumes at 2031, the proposals offer a good level of bus priority.
- 3.16 The concept plans importantly seek to achieve a significantly enhanced landscaped and tree-lined 'boulevard', which also includes much improved public transport amenity through a new bus super stop facility either side of Worcester Street. The design does not include continuous specific on road cycle facilities within the widened road section, as it is proposed that the nearby East Frame will provide for north – south cyclists in a traffic free environment, along with Colombo Street through both protected lanes and slow shared space street sections in the heart of the central city. The concept design does, however include a wide shared pedestrian and cycle path on the eastern side of the street for local access needs.
- 3.17 The concept design development has explored the possibility of further restrictions of general traffic access along sections of Manchester Street. However, this could result in more vehicles using sensitive streets such as Colombo Street or the laneways within the East Frame. It would also reduce the total number of people travelling on Manchester Street providing passive surveillance and therefore a safer environment. The design presented for consultation delivers the 'boulevard' concept of a greener streetscape for all users and provides the desired priority for bus operations.
- 3.18 As a result of the above considerations, the proposed scheme does not create 'bus only' sections of Manchester Street. Monitoring of bus service efficiency will be undertaken on the corridor in association with Environment Canterbury (ECan) to ensure the envisaged bus priority and efficiency is achieved.
- 3.19 To accommodate the proposed road layout, 14 trees will require removal as shown on the consultation plan. Seven of these are existing street trees and a further seven are on land acquired by the Christchurch Central Development Unit to widen Manchester Street. These trees are all classified as being in 'fair' to 'poor' overall condition. A further two trees (245 and 221 Manchester Street) may require removal as the arborist thinks they may be dependent on the existing kerb and channel for structural support. Both trees are classified as being in 'poor' overall condition. In addition, two notable trees that are part of the Edmonds Poplars Avenue will require specific design for construction works to avoid damage. A further six trees will require care to avoid compaction during construction.
- 3.20 In relation to the project the following key features are proposed in each block of Manchester Street:
- Kilmore to Cambridge: within the existing road space, one traffic lane in each direction, new street trees on the west side, on-street parking primarily on the west side, retention of on-road cycle lanes in each direction and 3 metre wide footpaths (pre – existing).
 - Cambridge to Armagh: within the existing road space, one traffic lane in each direction with four metre wide footpaths, a link at the Armagh Street intersection to the major cycle route in the East Frame, a pedestrian refuge to connect with the proposed Margaret Mahy Family Playground. Intersection arrangements with Cambridge Terrace permitting continuity east – west of the new Avon River key cycle route and the intended one-way operation westbound of Cambridge Terrace associated with separate Te Papa Ōtākaro / Avon River Precinct project.
 - Armagh to Gloucester: within a widened road corridor, one traffic lane in each direction plus a dedicated bus only lane for south-bound buses, on-street parking on the west side only, three rows of new street trees, five metre wide enhanced footpaths and a shared local access pedestrian / cycle path on the eastern side of the street. Twelve trees will be removed in this block on the eastern side.

6 Cont'd

- Gloucester to Hereford: Within a widened road corridor, new southbound bus super stop on the eastern side of the street (north of Worcester), with its twin northbound stop located south of Worcester Street on the western side. The location of the new bus stops and enclosed waiting areas is staggered to allow sufficient width for traffic lanes along with wider footpaths. The canopy structures themselves are currently subject to ongoing architectural design, and so the consultation drawings and literature will show an artist's impression of the likely form of the proposed structures only. Councillors will be separately briefed on the design of the shelters when the draft concept designs are completed. CERA representatives have been in discussion with property owners on the west side of Manchester Street between Worcester Street and Hereford Street about access to their properties. A general traffic lane in each direction with traffic signal controls, which will give buses priority as they leave the super stop. Limited on-street parking is proposed on the opposite side to the super stops, with wide footpaths and new tulip trees (*Liriodendron tulipifera*) throughout the section of corridor. One tree will be removed on the corner of Gloucester and Manchester Streets.
- Hereford to Lichfield: within a widened road corridor, one traffic lane and a dedicated bus lane (centrally located) in each direction, on-street parking on both sides, a widened footpath on the eastern side to accommodate a shared pedestrian / cycle path for local access needs), and three rows of new street trees. One tree will be removed on the corner of Cashel and Manchester Streets. Priority bus movements to and from Lichfield Street (where the northern access to the new bus interchange is located), with retention of general traffic access to and from Lichfield Street to support access from the north to the new retail precinct parking facilities. Provision of a new narrow divided (kerbed) central median for the majority of the street section in order to ensure bus priority, resulting in access to High Street and individual frontage premises on the western side of the corridor being restricted to left in / left out only. The existing Bedford Row access and the temporary parking area there will be affected by future provisions of the East Frame.

Consideration of Alternatives

3.21 As noted in section 3.2, the framework within which the draft concept designs for the Transport projects have been developed has been set by *An Accessible City* and the subsequent section 27 announcement by the Minister for Canterbury Earthquake Recovery which has further directed changes to Council traffic, parking and speed limit bylaws under section 27 of the Canterbury Earthquake Recovery Act. Therefore, components of the concept designs (the key public transport routes and bus only lanes, the location of the super stops, the creation of a boulevard on Manchester Street, traffic operational arrangements establishing one and two-way streets and shared zones (within the new Te Papa Ōtākaro / Avon River Precinct and East Frame) and the new low speed zone, are established by the Minister's directions for changes to the bylaws. However, the detail of these changes for each of these three schemes (eg amendments to on-street car parking and service vehicle access, changes to traffic signals and intersection layouts and associated traffic movements, the creation of new cycleways and shared path facilities) are not. While alternatives were considered in accordance with best practice and relevant statutory requirements, this was undertaken within the context of *An Accessible City*, the Recovery Plan and those bylaw amendments. The primary options that have been considered in preparing these concept designs are summarised in **Attachment 3**.

4. FINANCIAL IMPLICATIONS

4.1 There are no additional financial implications that stem from approving public engagement on the three transport projects. The costs of the proposed projects form part of the Cost Share Agreement between Council and the Crown and the schemes featuring in this report were part of an approved *An Accessible City* First Phase programme of projects approved by the Council at its meeting on 22 May 2014. The schemes are provided for in Council's Three Year Plan and Annual Plan.

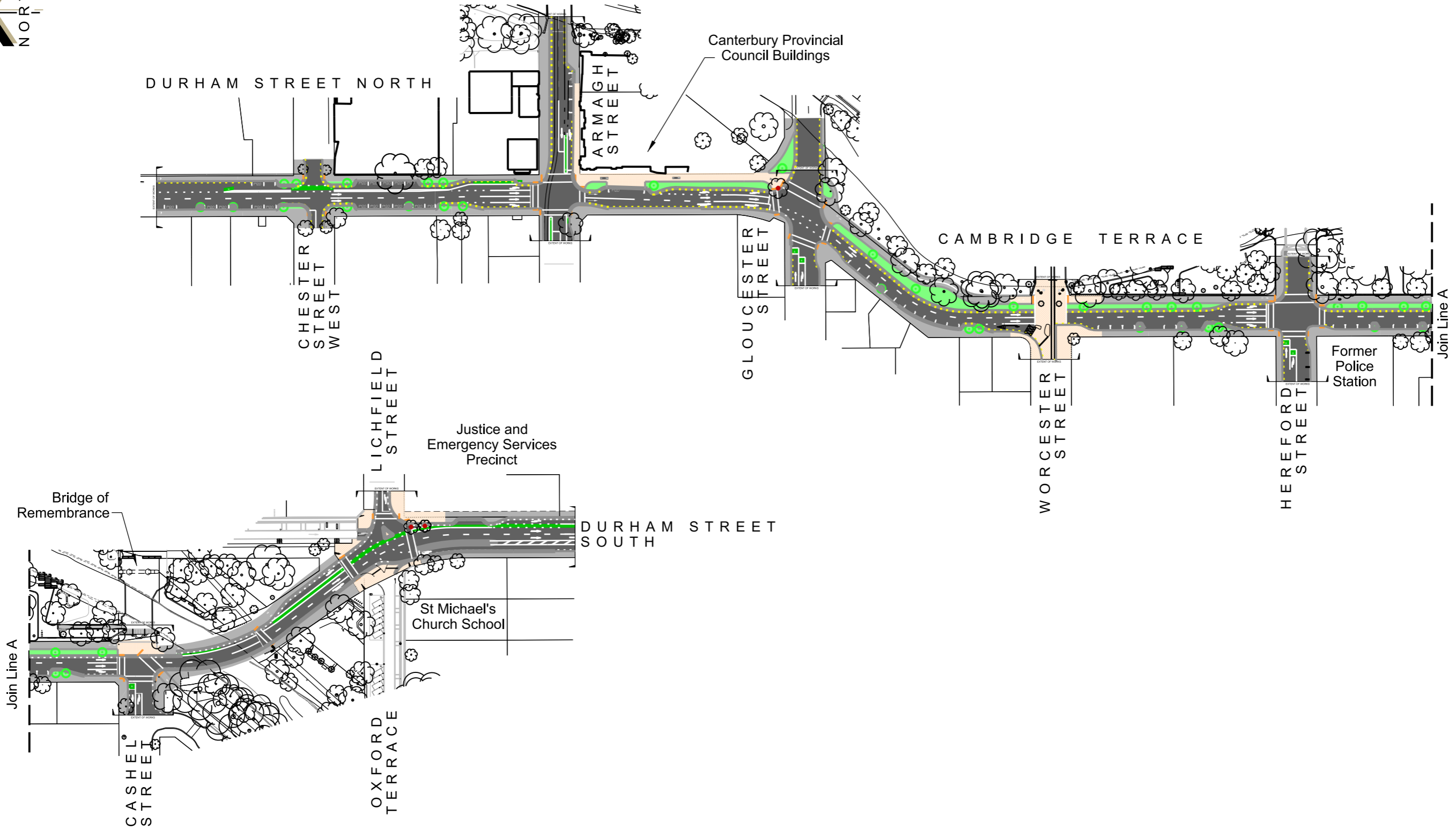
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- 4.2 The three projects are funded from the total \$72 million funding agreement between the Council, CERA and the New Zealand Transport Agency. The indicative cost for TP1b (Hospital Corner) is \$14 million, TP3 Durham Street / Cambridge Terrace \$14 million and TP4 Manchester Street is \$15.5 million – a total of approximately \$43.5 million.

5. STAFF RECOMMENDATION

That the Infrastructure, Transport and Environment Committee:

- 5.1 Receives the report and notes that significant aspects of the proposed concept designs for the three Transport Projects considered by this report for consultation implement An Accessible City, the Minister's for Canterbury Earthquake Recovery's changes to the bylaws and the Council's provision for the works in the Three Year Plan and the Annual Plan. Therefore the scope of reasonably practicable options available for these works is limited as a result of the Council's obligations under the Canterbury Earthquake Recovery Act and the provisions in the Recovery Plan.
- 5.2 Recommends that the Council approves consultation on the concept plans for:
- TP1b - Hospital Corner Stage 2 (final layout) including sections of Hagley Avenue, St Asaph Street, Tuam Street and Antigua Street.
 - TP3 - Durham Street / Cambridge Terrace – from Kilmore Street to Tuam Street.
 - TP4 - Manchester Street – from Kilmore Street to Lichfield Street.



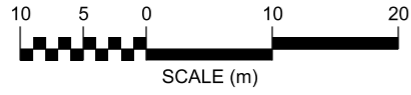
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Durham Street North, Cambridge Terrace, Durham Street South, Tuam St
An Accessible City
Consultation Plan

Overview

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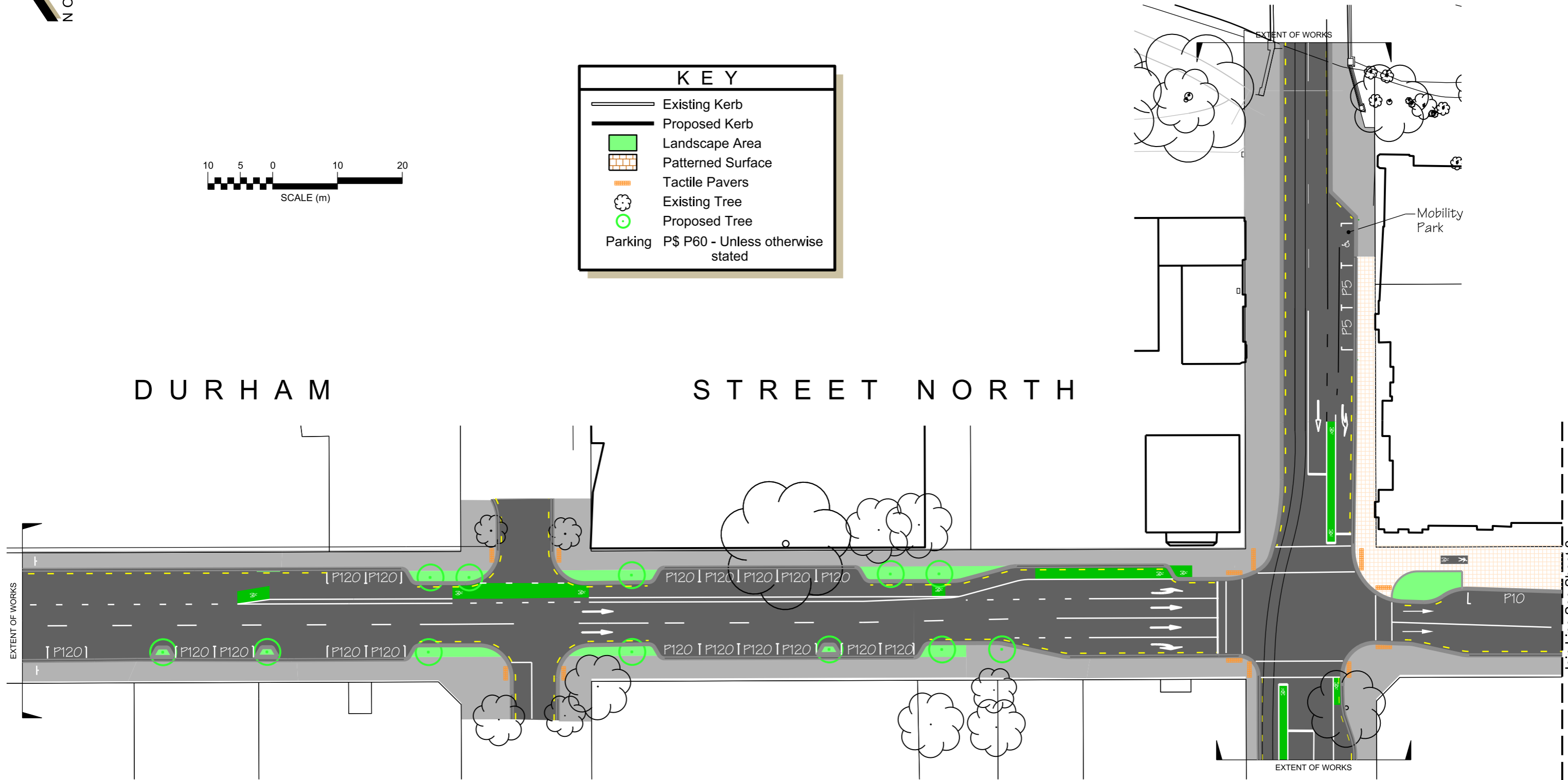
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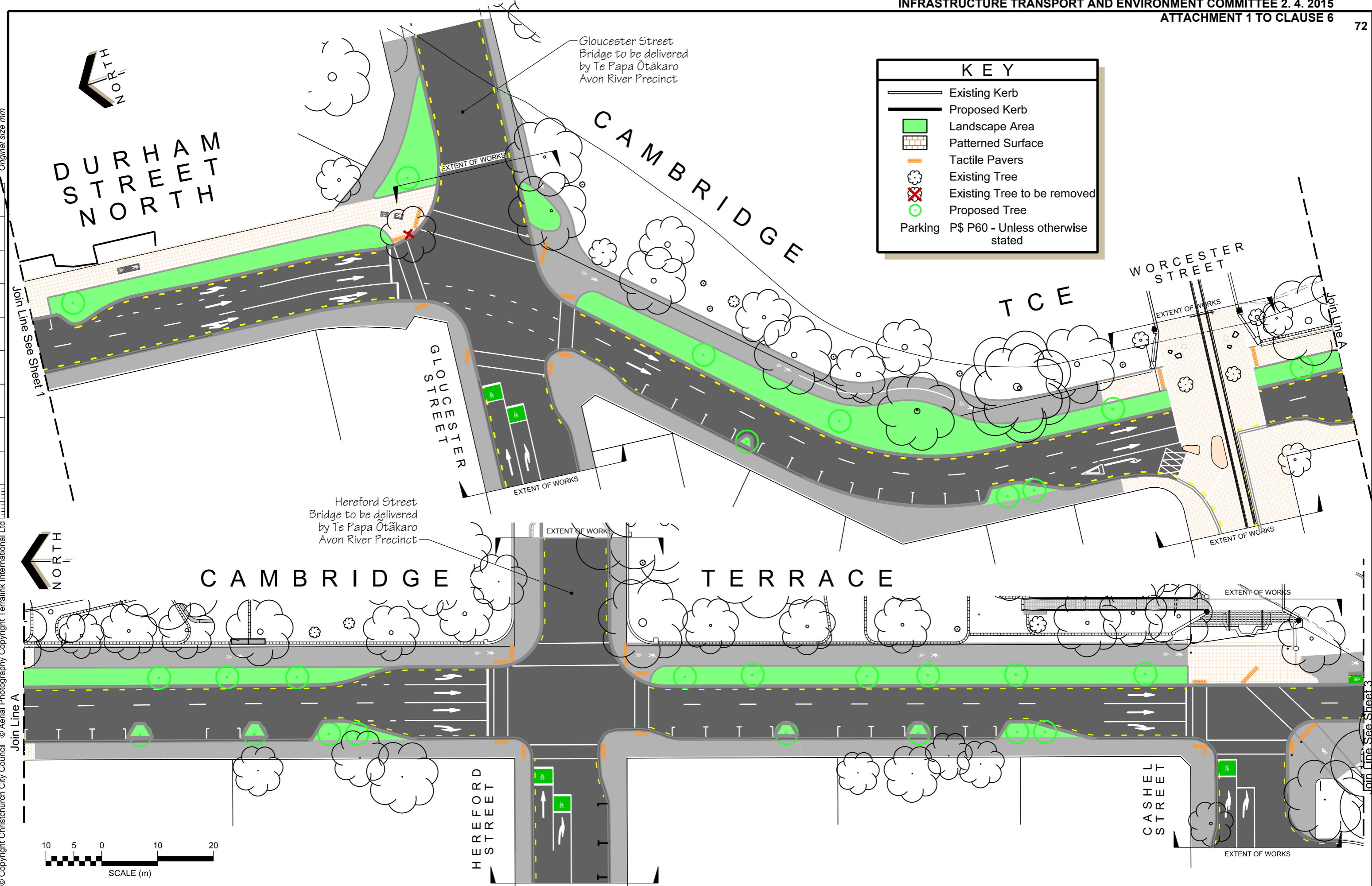
Join Line See Sheet 2



Durham Street North, Armagh Street
An Accessible City
Consultation Plan

Sheet 1 of 3

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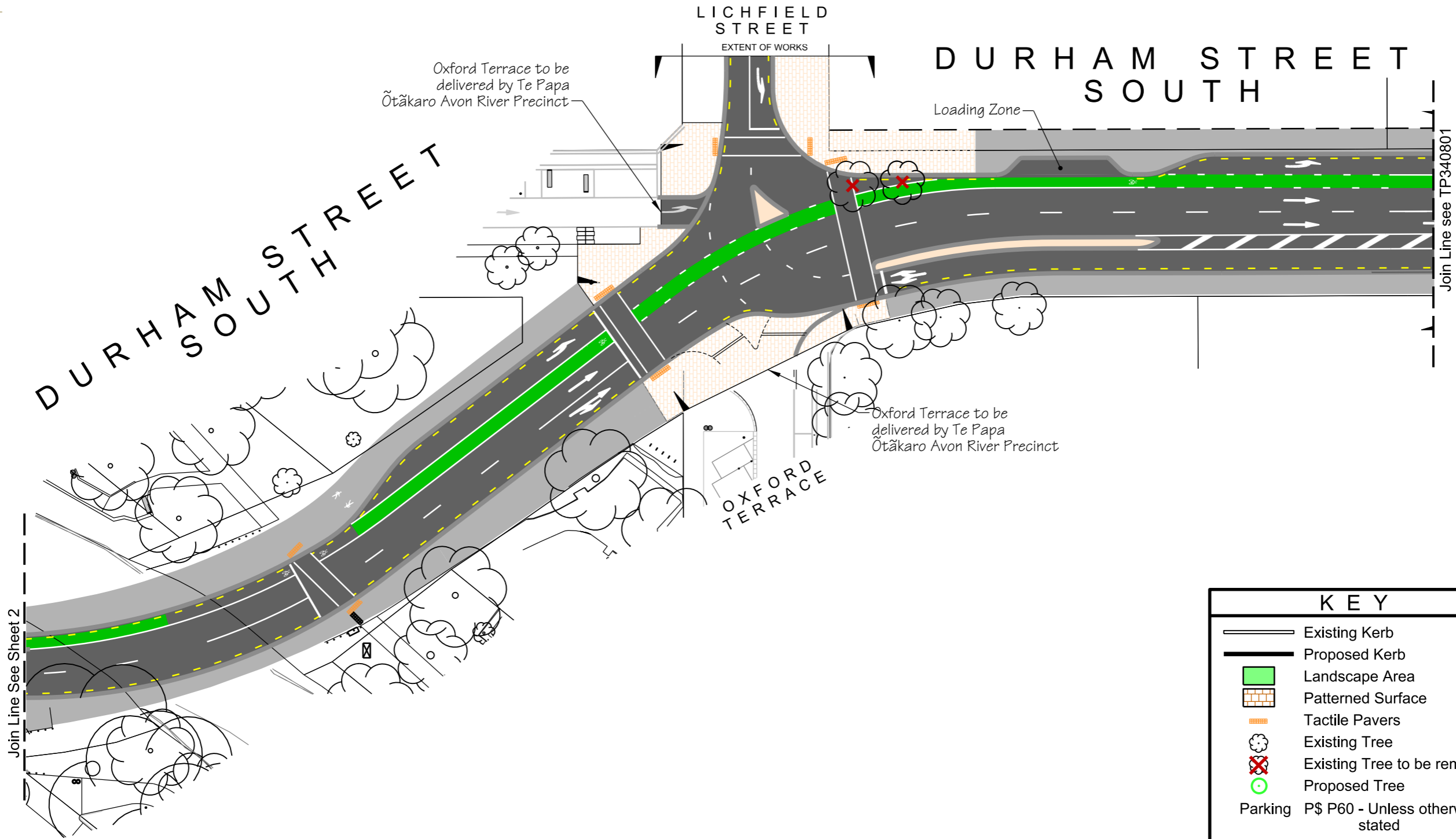


Durham Street North, Cambridge Terrace
An Accessible City
Consultation Plan

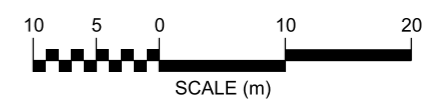
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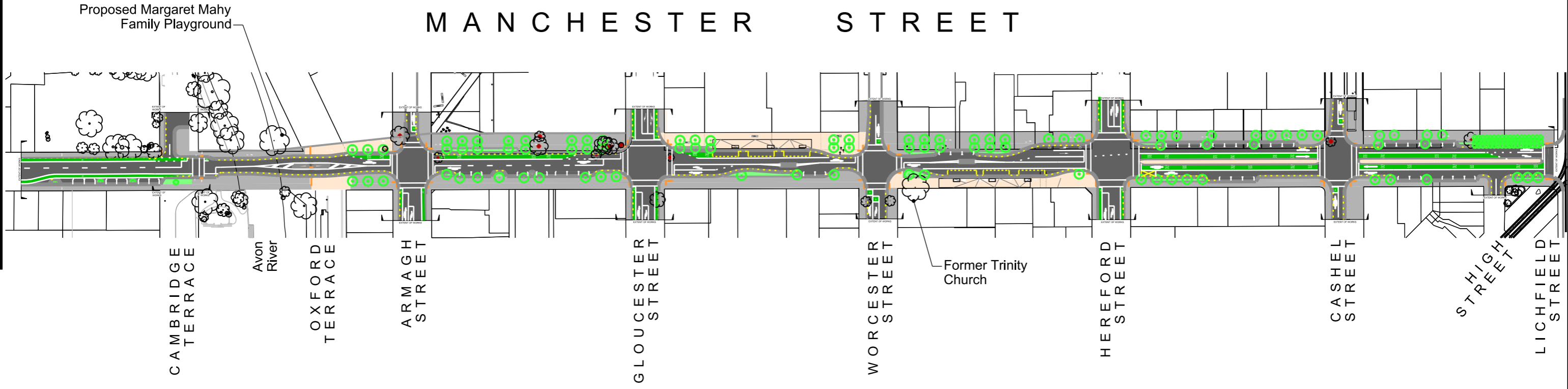
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MANCHESTER STREET





MANCHESTER STREET

STREET

CAMBRIDGE TERRACE

OXFORD TERRACE

ARMAGH STREET

WORCESTER STREET

MANCHESTER STREET

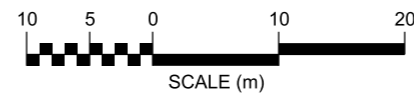
GLOUCESTER STREET

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- Bus Lane
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Cambridge Terrace will become one-way westbound with a left turn only exit onto Manchester Street as part of the future Te Papa Otakaro / Avon River project. The works shown are interim until this one-way conversion is undertaken.

Super Stop Canopy



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Join Line A

Join Line A

Join Line See Sheet 2

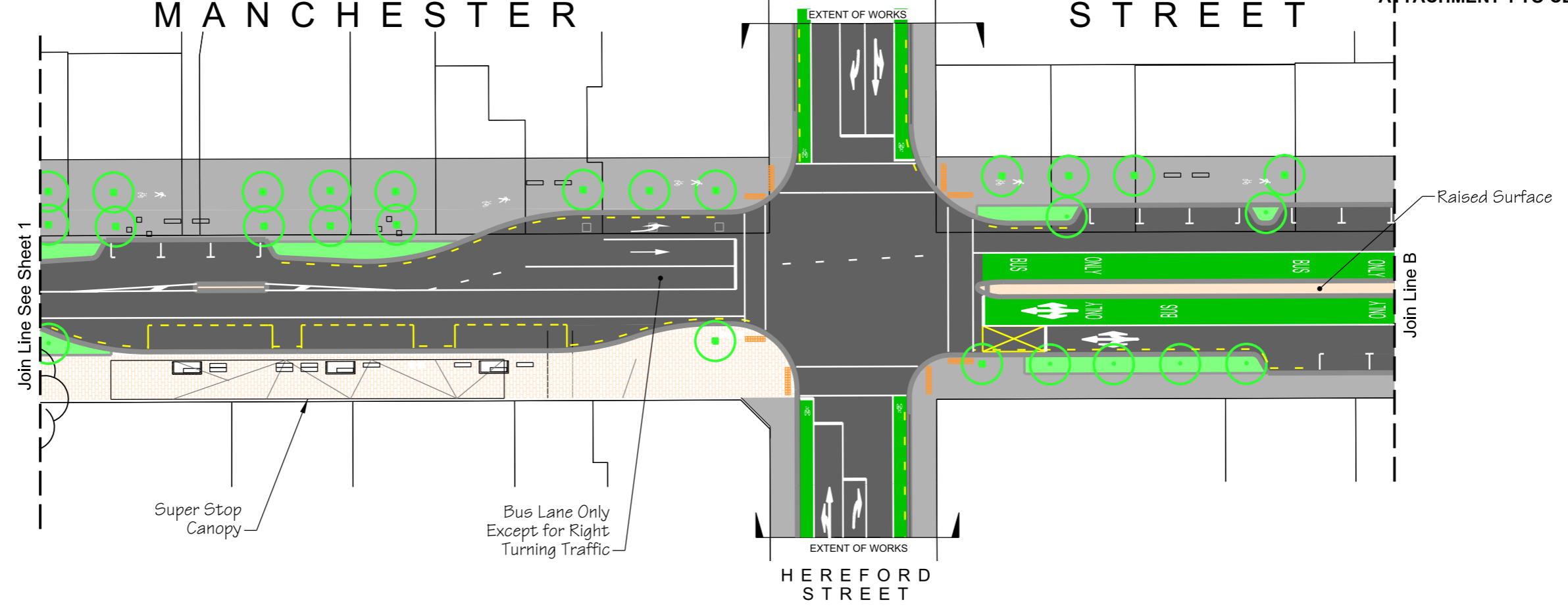


Manchester Street
An Accessible City
Consultation Plan

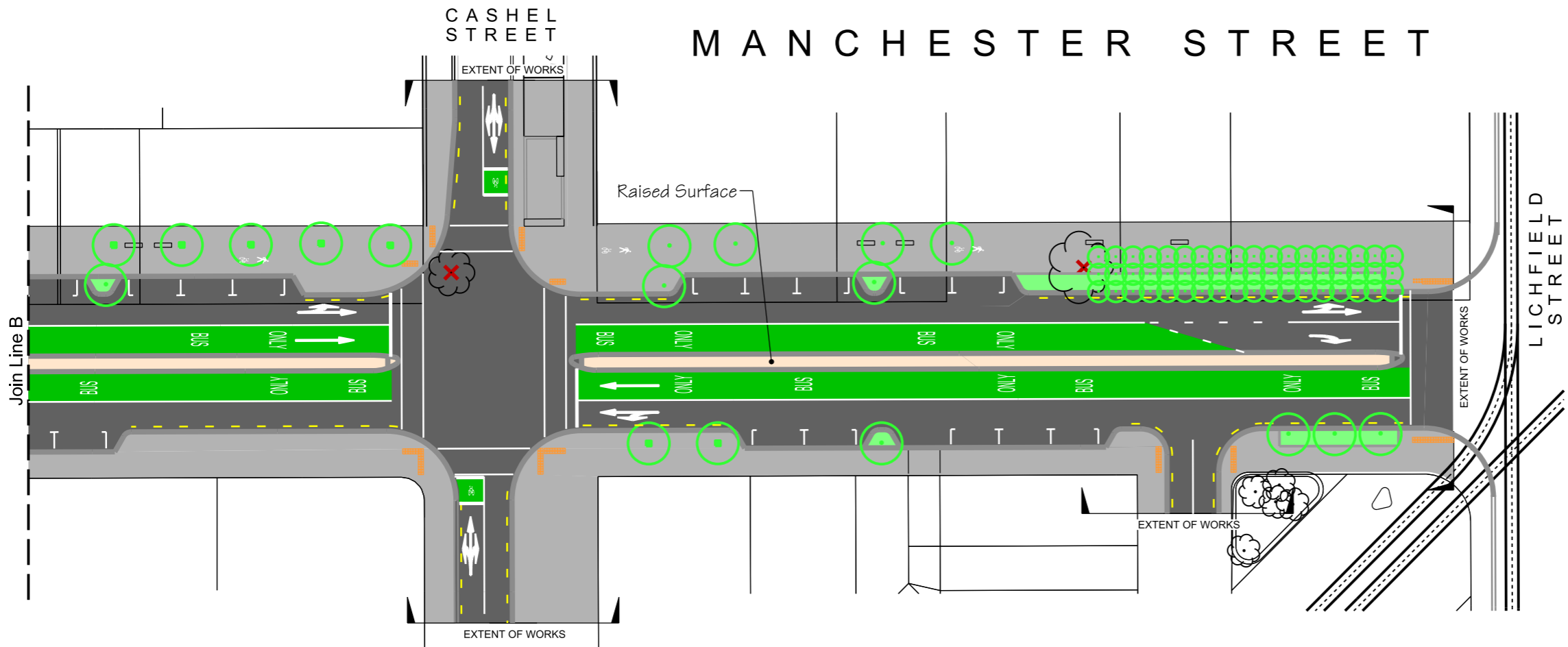
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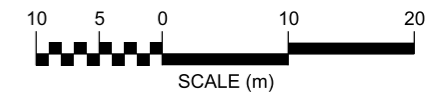
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MANCHESTER STREET



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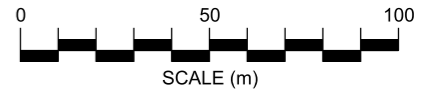
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The timing of construction will be co-ordinated with the development of private lots and Canterbury District Health Board Land

The final layout will be determined as part of Te Papa Ōtākaro Avon River Precinct

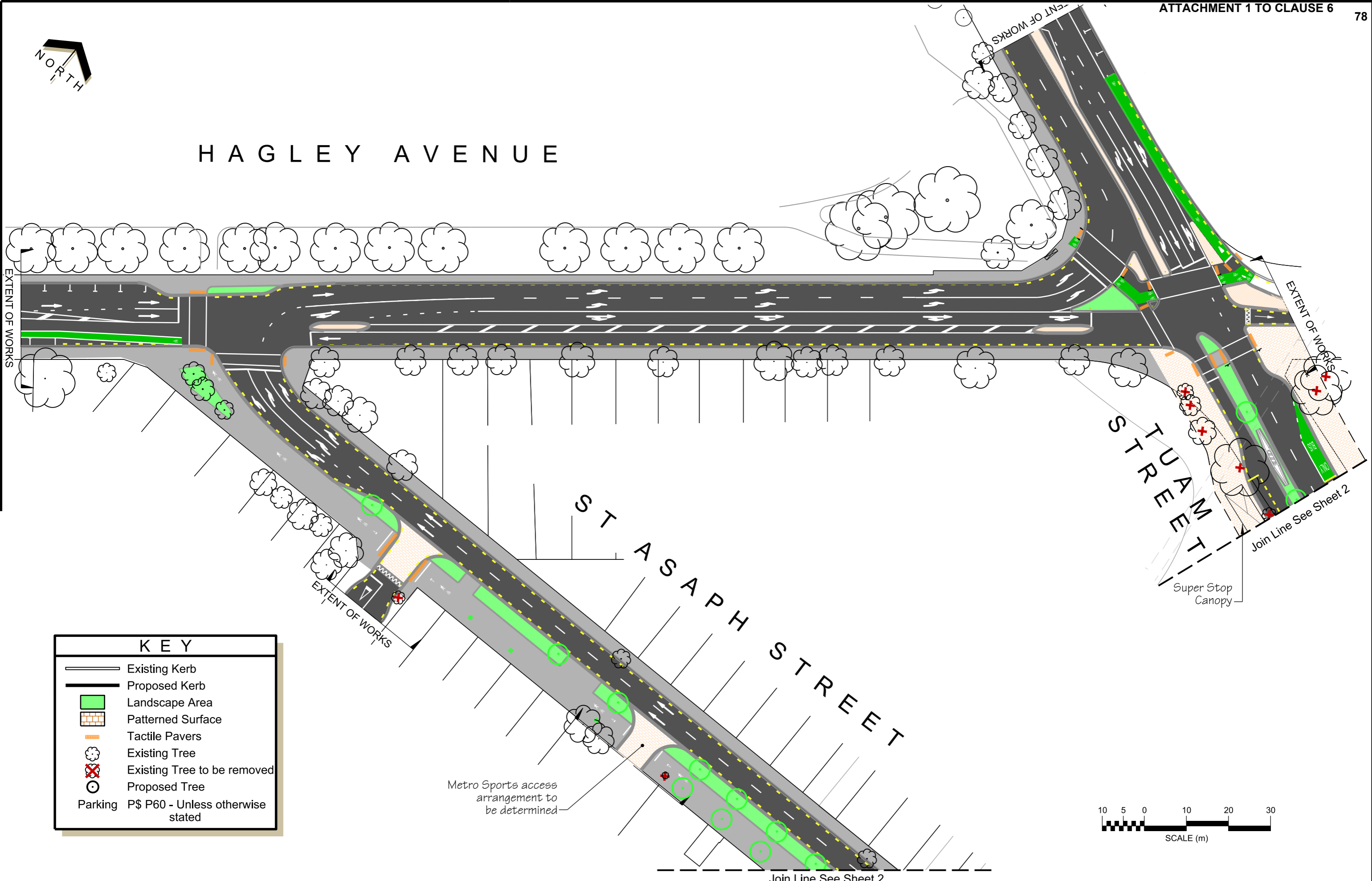
Key Cycle and Pedestrian route. The design of this section is currently being discussed with the CDHB. The final layout will be determined later



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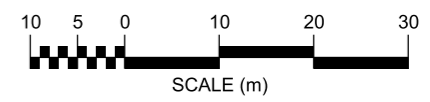


HAGLEY AVENUE



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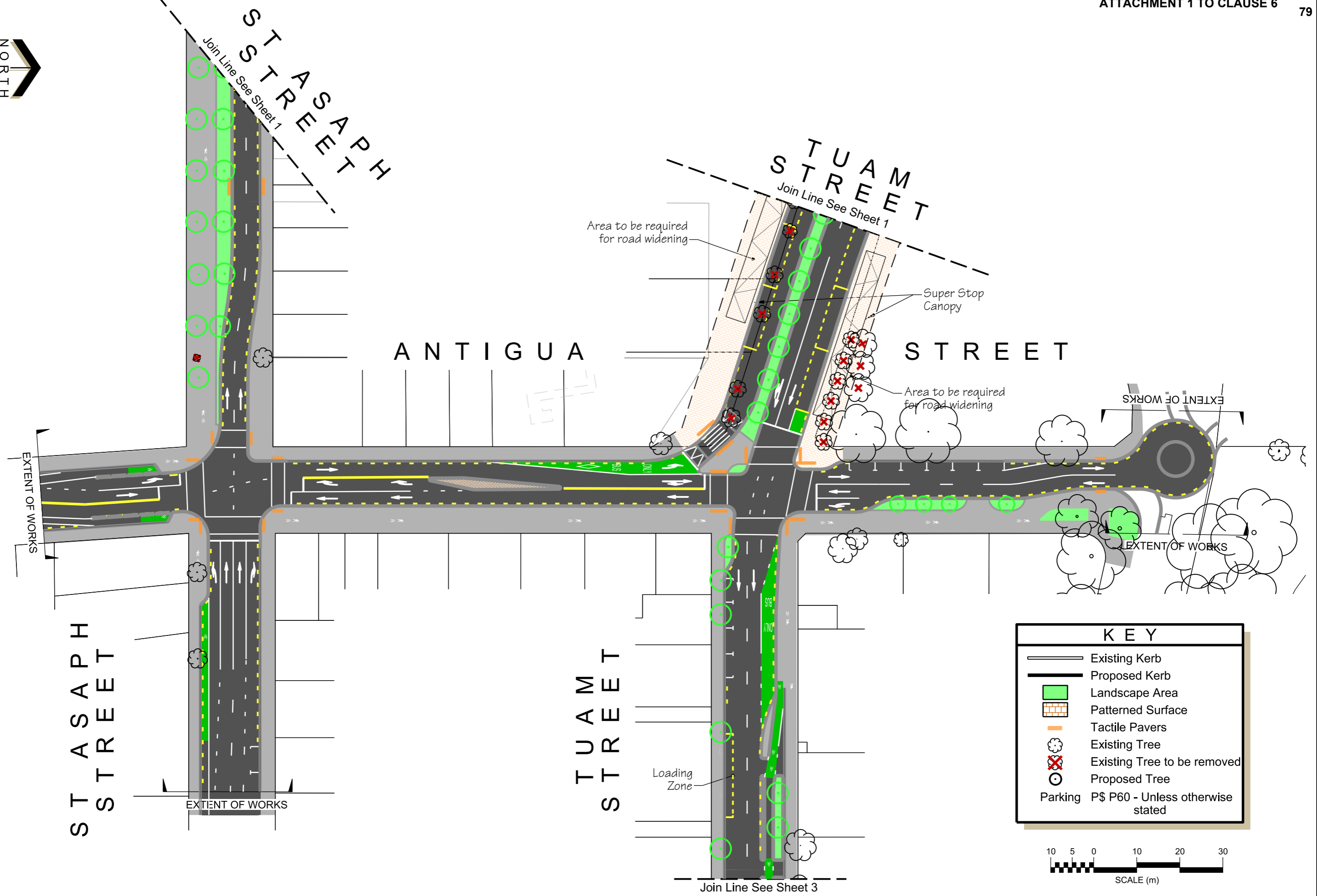
Hospital Corner Stage 2 - Final Layout
 An Accessible City
 Consultation Plan

Sheet 1 of 3

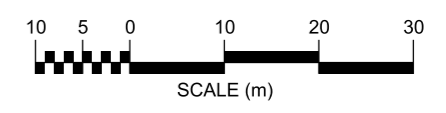
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Join Line See Sheet Z

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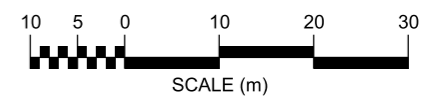
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O X F O R D T E R R A C E
 Te Papa Ōtākaro
 Avon River Precinct

Loading Zone

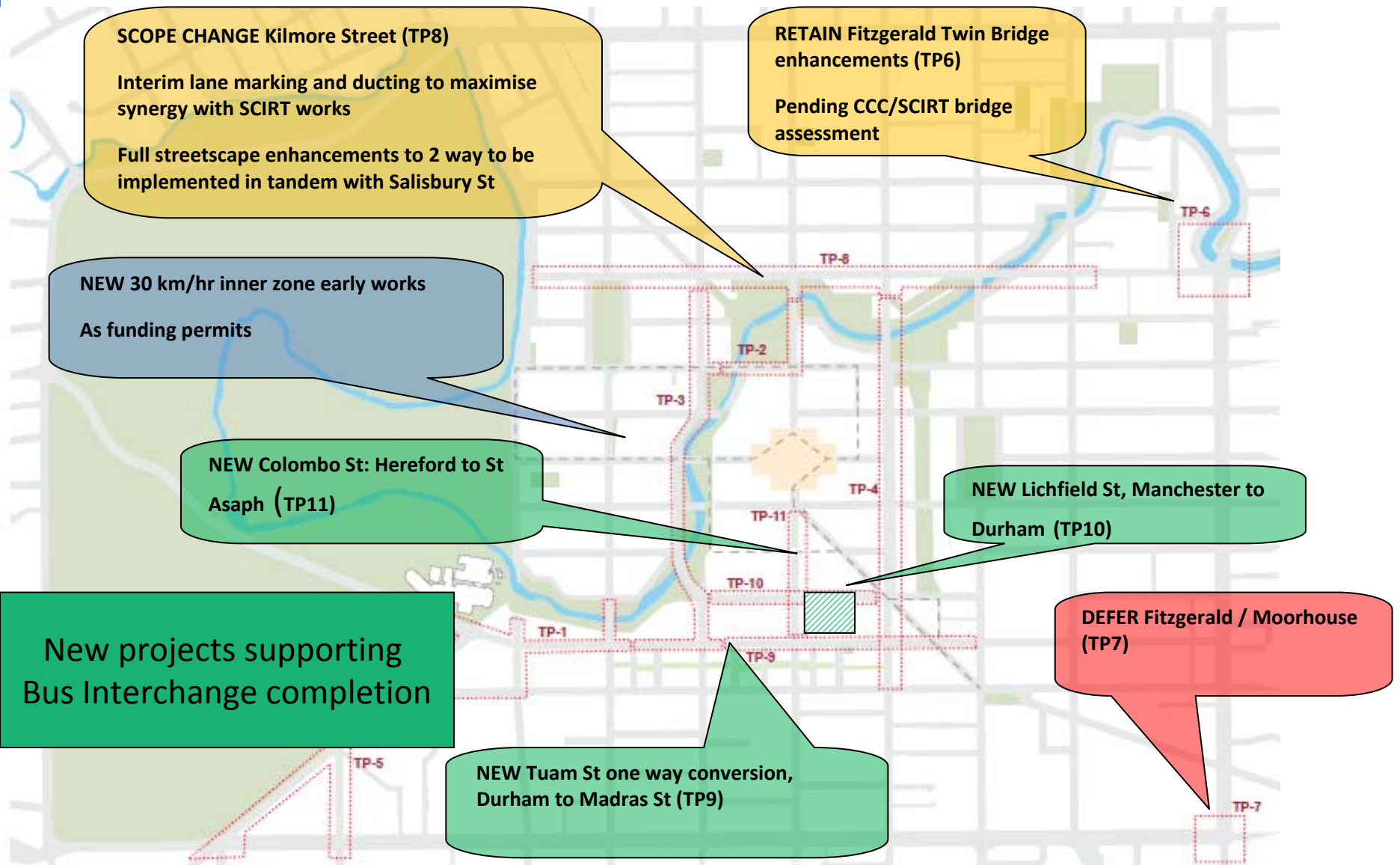


Hospital Corner Stage 2 - Final Layout
 An Accessible City
 Consultation Plan

Sheet 3 of 3

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 TP340801

Revised AAC First Phase Programme (as May 2014)



Anticipated effects:

The proposed project methodology has had rigorous professional and technical investigation and peer review by a multi-disciplinary team including planners, engineers, geologists, landscape architects, construction and operations consultants, and ecologists. The team has investigated many potential effects during construction and in the long term. These include: threats to plant and wildlife; erosion; stormwater runoff; nuisance, noise and dust effects; landscape impacts; impacts on walkers and mountain bikers using the Crater Rim paths and many more. The project team is developing strategies for avoiding, remedying and mitigating these effects, which may include native restoration planting and lizard translocation.

Project Timeline

Subject to funding approval (from NZTA) the proposed work will start mid 2015 and the road potentially open in early 2018.



Sumner Road Re-opening Project



Christchurch City Council is preparing for work to see the earthquake-damaged Sumner Road re-opened between Lyttelton and the Summit Road near Evans Pass. The road and retaining walls will be repaired and the risk to road users from geotechnical hazards will be reduced.

Background

Sumner Road provides an important link from Christchurch/Sumner to Lyttelton for both the general public and for the Port of Lyttelton. Prior to the Canterbury Earthquakes, the road served as an alternative route for port vehicles unable to use the Lyttelton Road Tunnel. Users included over-sized vehicles, and those carrying specified hazardous substances. Since the closure of the road due to risk of rockfall and significant damage to the road surface, those vehicles have accessed the port via Dyers Pass or Gebbies Pass. These are longer routes, with the Dyers Pass route also passing through residential areas. The road was also a popular link for cyclists and serves as alternative route to the port should an emergency (including a natural disaster) close other roads.



For further information please contact: Christine Toner, Consultation Leader, Christchurch City Council, PO Box 73011, Christchurch Mail Centre, Christchurch 8154, Phone (03) 941 8355, Email christine.toner@ccc.govt.nz or view www.ccc.govt.nz/sumnerroad and www.ccc.govt.nz/porthillsgeotech

Key Information

This is an 'Earthquake Recovery Project'. The works are required for the purpose of reopening the earthquake damaged Sumner Road. Christchurch City Council undertakes to inform Lyttelton, Sumner and Redcliffs communities and other stakeholders. Key stakeholders, including Department of Conservation, Lyttelton Port Company, Ngai Tahu, Summit Road Protection Authority and Ngati Wheke Runanga, have been consulted and involved in decision making on this project to date.

This leaflet aims to provide nearby residents and other stakeholders with information about the project. The Christchurch City Council's public consultation generally invites the community to give feedback about elements that can add value to a project. Because the main elements of this project are driven by the technical design and health and safety requirements relating to the location and layout, we are not seeking any further feedback on the benching and other repair work.





Existing View

Artists Impression
 Post Construction



The proposed works:

The area for the proposed work extends from the small upper bluffs approximately 100 metres from the Evans Pass layby down to Reserve Terrace in Lyttelton. It includes the Crater Rim Bluffs and the slopes below these, the Battery Point Bluffs, the road cuttings, the forested areas and Double Gully. After this work is completed the embankments and retaining walls below the road under the Crater Rim Bluffs will require repairs.

The proposed work varies depending on the specific area of the site, and includes scaling to remove loose surface materials; blasting to remove boulders and outcrops; and earthworks including engineered removal of soil and rock to reshape the land (to create benches). Bunds will also be required to contain any future rock fall.

There is also a proposal for the Council to undertake native restoration planting in the area which would contribute towards

environmental mitigation for the project. Minimal disturbance and disruption to the residents of Lyttelton Harbour and Sumner/Redcliffs areas is a priority.

The overall project will be undertaken in two phases as follows:

- Works above Sumner Road to reduce risks to road users.
- Road works by contractors to repair the road, including retaining walls and any necessary drainage.

The works will generally move from the higher parts of the site down toward the road and from western and eastern sides of the project site toward the centre. It is possible some stages may occur simultaneously

INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE - 2. 4. 2015

7. PUBLIC REALM NETWORK PLAN (STREETS AND SPACES DESIGN GUIDE)

		Contact	Contact Details
Executive Leadership Team Member responsible:	Chief Planning Officer Strategy and Planning Group		
Officer responsible:	Unit Manager, Transport & Research		8407
Author:	Urban Designer		

1. PURPOSE AND ORIGIN OF REPORT

1.1 Following briefings to the Council in June and November of 2014 and January 2015, alongside engagement with the Community Forum and targeted consultation of road user groups, heritage groups, residents and business associations, the Public Realm Network Plan – *Streets and Spaces Design Guide* (the Plan) was work-shopped by Councillors and Community Board members in February 2015. At the workshop it was agreed that the Plan be presented to Committee for endorsement.

1.2 The purpose of this report is to:

1.2.1 Advise the Committee and the Council of final amendments to the Public Realm Network Plan – Streets and Spaces Design Guide; and

1.2.2 Request that the Committee recommend to the Council that the Plan be endorsed.

2. EXECUTIVE SUMMARY

2.1 The Plan sets out a long-term vision for the network of streets and public spaces in central Christchurch. It also provides the design principles, criteria and standards to guide public realm improvements.

2.2 The Plan has been developed by the Canterbury Earthquake Recovery Authority (CERA) in partnership with Christchurch City Council (CCC), Te Rūnanga o Ngāi Tahu, Environment Canterbury (ECan) and the New Zealand Transport Agency (NZTA) to support the delivery of the Christchurch Central Recovery Plan (Recovery Plan).

2.3 The transport chapter of the Recovery Plan, An Accessible City (AAC), refers to the preparation of design guidelines as part of implementation. AAC recognises that a consistent approach is important to ensure the various elements of the transport network operate well together.

2.4 The term 'public realm' is often used to describe the spaces between buildings that are publicly accessible. The Plan includes principles and design criteria to guide the development of streets, public spaces and publicly accessible space within anchor projects and private development.

2.5 The guidelines will inform the first phase transport projects as outlined in AAC and provide strategic and technical guidance for anyone involved in the design and delivery of public realm projects in the central city - both during the recovery phase and into the future.

2.6 The Plan is a non statutory design guide to influence the design of public spaces and streets throughout the central city. It provides a framework and design principles that are people focused and promotes the development of a strong sense of place.

2.7 The Plan does not change the Council's decision making processes for public realm projects, instead it acts as an additional source of information to better inform designs for streets and spaces.

3. BACKGROUND

3.1 The Vision for the Central City Public Realm is as follows:

“By 2025 central Christchurch streets and public places will be greener, easier to move around and full of people enjoying a vibrant city life”.

7 Cont'd

3.2 The Vision is guided by four themes:

- 3.2.1 **VIBRANT** - support social, recreational and economic activity in the city centre.
- 3.2.2 **DISTINCTIVE** - rebuild a public realm network with a strong and recognisable sense of place that generates civic pride.
- 3.2.3 **ACCESSIBLE** - create a connected, inclusive, efficient and safe public realm network for all people and modes of travel.
- 3.2.4 **GREEN** - introduce more nature into the city centre public spaces and foster a healthy urban environment and healthy lifestyles.

3.3 The design guidelines have been developed to follow eight principles:

- 3.3.1 **COMFORT** - design public places and streets with high standards of pedestrian comfort and convenience.
 - 3.3.2 **INVITING AND CREATIVE** - foster a sense of interest and surprise in the everyday experience of the central city.
 - 3.3.3 **SENSE OF PLACE** - design the public realm to reflect the context and identity of Christchurch, its character, culture, history, values and aspirations.
 - 3.3.4 **SAFE** - design the public realm to positively contribute and respond to the actual and perceived sense of safety in the central city.
 - 3.3.5 **WALKABLE** - create a consistently high-quality and well-connected pedestrian and cycling network that attracts people of all ages to spend time in the central city streets and public places.
 - 3.3.6 **RESILIENT AND FLEXIBLE** - design the public realm network as a system that can adapt to change and evolve with the needs and functions of the city.
 - 3.3.7 **LEGIBLE** - contribute to a city centre that is easy to understand and to navigate for locals and visitors alike, including those with mobility needs.
 - 3.3.8 **GREEN** - introduce more trees, landscaping and gardens into the city centre; improve water management and air quality to foster a healthier natural and urban environment.
- 3.4 The overarching purpose of the Plan is to provide a unified and comprehensive reference document and guidelines for the design and delivery of public realm improvement projects in the central city.
- 3.5 The Plan will assist the many teams working across the central city on transport and public realm projects to take a consistent approach to public space works and have regard to the relationships and interfaces between sites and projects, such as the first phase transport projects, and anchor projects.
- 3.6 The Plan illustrates how the street environments described in An Accessible City can be arranged and acknowledges that designing within an existing context requires balance and compromise.
- 3.7 The design principles represent best practice and provide a starting point for all future designs, with indicative street cross sections for each street. The cross sections are intended to inform designers of the appropriate design of street environments as outlined in An Accessible City.

INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE - 2. 4. 2015

7 Cont'd

- 3.8 The Plan aims to provide clarity to investors, developers, designers and organisations regarding long-term strategies, principles and criteria for the design and delivery of public realm projects and tools and a reference source of key guidance to deliver high-quality public realm outcomes. A high-quality public realm network will not only contribute to the objectives of the Christchurch Central Recovery Plan but, in the long term, to the ongoing social and economic vitality of Christchurch.
- 3.9 The Plan has regard for the standards as set out in the Council's Infrastructure Design Standards and does not seek to replace any existing or operational documents; instead it draws together and references important information in one place, making use of documents such as the Draft Central City Streetscape Plan (2010) and the Central City Lanes Design Guide (2007).
- 3.10 The Plan has been developed by drawing upon existing technical documents and considering objectives and aspirations from AAC, the Recovery Plan and feedback from targeted consultation with central city residents and business associations, heritage groups and community forum alongside a workshop with a range of road user groups.
- 3.11 The Plan has been structured to ensure that all relevant information is easily obtained by the user to enable designers and developers to easily select the portion that is of interest to them.

4. FINANCIAL IMPLICATIONS

- 4.1 The Plan aims to provide a framework for the future design of public space in Christchurch Central City. Endorsement of the Plan is not a commitment to the delivery of any specific project, nor will it replace the existing approvals and consultation process. Future public realm projects and associated budgets will be determined through the Councils Long Term Plan and associated project approvals.

5. SIGNIFICANCE AND ENGAGEMENT POLICY

- 5.1 The decision recommended in this report is of low significance in relation to the criteria in the Council's Significance and Engagement Policy.
- 5.2 The Plan has been presented and discussed at three Councillor briefings followed by a joint Council and Community Board Workshop. The first two briefings focused on the scope, vision and principles of the Plan with the third briefing providing a more focused session on the Anchor Projects Public Realm chapter.
- 5.3 Following the initial briefing, the Council requested that targeted consultation be carried out with Central City Residents and Business Associations.
- 5.4 Both the Central City Residents and Business Associations broadly agreed with the vision and principles outlined in the draft Plan. A number of issues and concerns were raised during the consultation, with amendments to the Plan made where necessary. In addition to the comments that were able to be addressed through the Plan, there were a number of other subjects that were raised that whilst outside of the scope of the project were of great interest to the groups, such as maintenance and car parking and were subsequently raised during the councillor briefings and workshop.
- 5.5 A series of workshops were carried out with a range of user groups and authorities to ensure that the guidelines gave due consideration to all the required standards for universal access and ensured that international best practice was being applied.
- 5.6 The Plan was prepared by the Christchurch Central Development Unit (CCDU), in conjunction with the New Zealand Transport Agency (NZTA), ECan, and Council staff, which included representatives from the Chief Operations Office (COO) and the Facilities and Infrastructure Rebuild Group (FIRG). Peer reviews have been completed by all relevant teams within the council as well as ongoing review from the Project Steering Group and Joint Technical Review Panel for An Accessible City which includes representatives from the Council, CERA, NZTA and ECan.

7 Cont'd

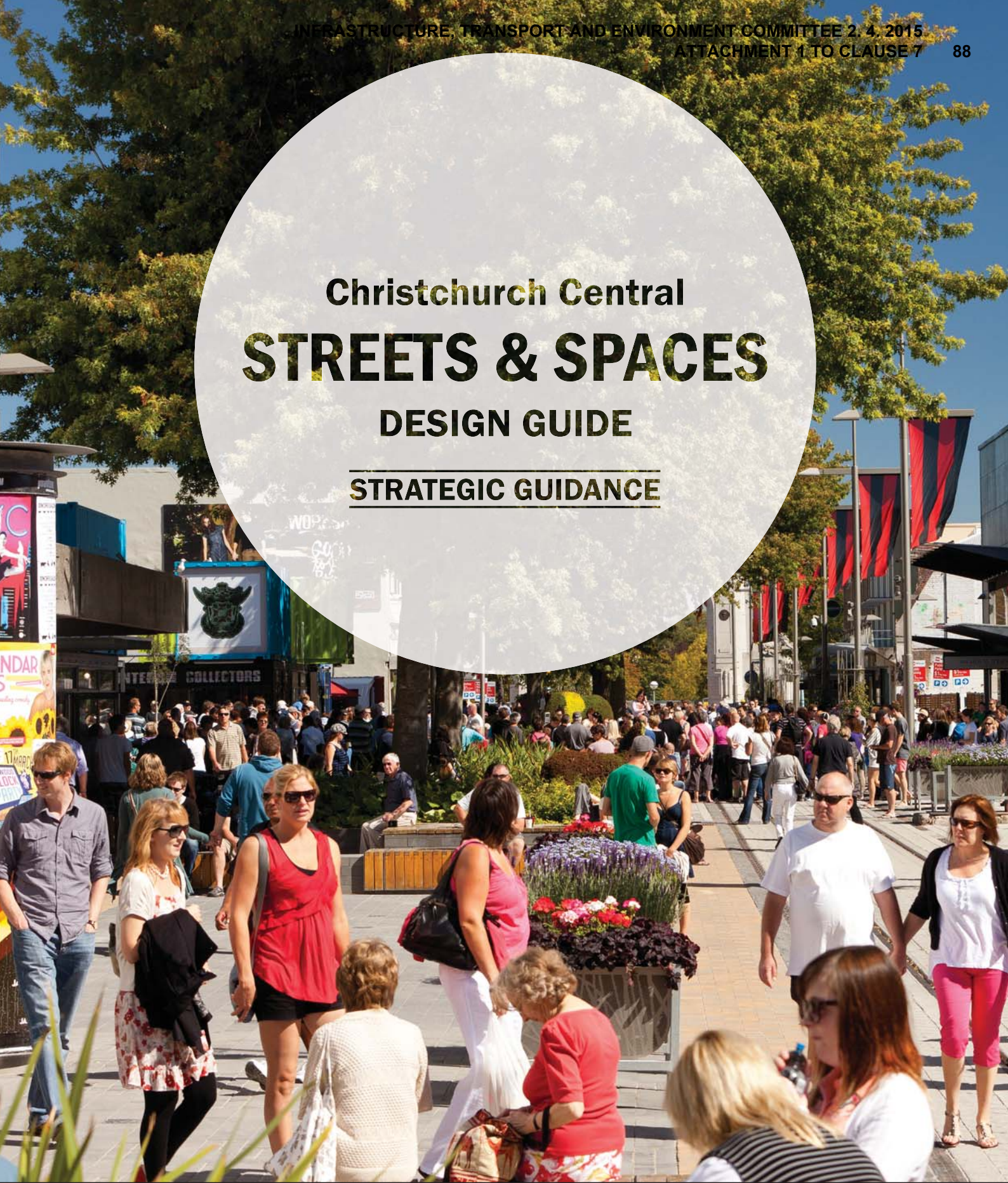
- 5.7 **Attachment 2** sets out list of the final changes to the Plan as a result of the final Councillor and Community Board Workshop, with the amendments included within **Attachment 1**, the final document.

6. STAFF RECOMMENDATION

That the Infrastructure, Transport and Environment Committee recommend that the Council:

- 6.1. Receive the Report and Attachments 1 and 2.
- 6.2. Endorse the amended Public Realm Network Plan – Streets and Spaces Design Guide.

Christchurch Central
STREETS & SPACES
DESIGN GUIDE
STRATEGIC GUIDANCE



Published in [insert month and year] by

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CONTENTS

Foreword	5
Purpose	9
How to use this document	10

01. Introduction

What is the Public Realm?	14-17
Central City Public Realm	20-25
Scope	19
Vision, Guiding Themes and Design Principles	26-29

02. Strategic Approach

Who are we designing for?	32-33
Supporting the implementation of An Accessible City	34-35
Capitalising on existing infrastructure	36-37
Strengthening the city's green infrastructure network	38-39
Embracing Ngāi Tahu values	40-41

03. Design Criteria

Design Criteria Public Realm Network	44-57
--------------------------------------	-------

04. Gathering Places

Overview	60
Central City Gathering Places	61-77

05. Streets

Overview	80-107
Central City Streets	108-153

06. Anchor Projects

Overview	156
Anchor Projects	158-187

07. Implementation

Implementation	190
----------------	-----

Vision

“By 2025 central Christchurch streets and public places will be greener, easier to move around and full of people enjoying a vibrant city life”.

Streets and Spaces Design Guide Vision, 2014

Mō tātau, a mō ka uri, a mauri ake nei

[For us, and our children after us]

FOREWORD

Everyone who visits Christchurch experiences the central city’s public realm in some form, through either the streets as they move across the city or the public spaces they visit.

The term ‘public realm’ is often used to describe the space between buildings that is publicly accessible.

The quality of the experience of the public realm forms an integral part of what makes the great cities of the world successful and memorable.

In the aftermath of the Canterbury earthquakes in 2010 and 2011, a significant portion of the central city public realm will be reconstructed.

The **Street and Spaces Design Guide** has been developed by the Canterbury Earthquake Recovery Authority (CERA) and Christchurch City Council (CCC) in

partnership with Te Rūnanga o Ngāi Tahu to support the delivery of the Christchurch Central Recovery Plan (Recovery Plan) by:

- providing a framework to lead the reconstruction of a public realm network that is people focused, has a strong sense of place and generates community pride
- bringing together public realm projects in the central city in a coherent and coordinated manner as the city redevelops.

The **Street and Spaces Design Guide** sets out an agreed long-term vision for the network of streets and public spaces in

central Christchurch. It also provides the design principles, criteria and standards for public realm improvements. This Design Guide aims to ensure all the recovery projects will contribute to a memorable experience of the central city for visitors and residents alike.

A high-quality public realm network will not only contribute to the objectives of the Christchurch Central Recovery Plan but, in the long term, to the ongoing social and economic vitality of Christchurch.



Illustrative Public Realm Network Vision

“By 2025 central Christchurch streets and public places will be greener, easier to move around and full of people enjoying a vibrant city life”.

Mō tātau, a mō ka uri, a mauri ake nei

SQUARES

1. Cathedral Square *
2. Victoria Square *

PARKS

3. Hagley Park and Botanic Gardens +
4. Te Papa Ōtākaro/Avon River Precinct *
5. Cranmer Square +
6. Latimer Square +
7. Margaret Mahy Family Playground ·
8. East Frame Central Park ·
9. Neighbourhood Parks +

PEDESTRIAN PRIORITY STREETS

10. City Mall+
11. South Frame Greenway ·

SHARED STREETS

12. Ōtākaro/Avon River Promenade·
13. East Frame links ·
14. South Frame links ·

AXIS STREETS

15. Colombo Street
16. Worcester Street

GATEWAY STREETS

17. Victoria Street
18. High Street

PLAZAS, LANES AND COURTYARDS

19. Christchurch City Council Offices plaza +
20. Art Gallery plaza +
21. High Street Triangular plazas +
22. Victoria Street Triangular plazas +
23. Bus Interchange entry plaza ·
24. Metro Sport Facility plaza (indicative) ·
25. New Regent Street +

26. Press Lane +
27. His Lordships and Struthers Lanes *
28. Woolsack Lane *
29. Strand Lane +
30. Tattersalls Lane +
31. Tramway Lane +
32. SOL Square
33. Justice and Emergency Services Precinct courtyard and plaza +
34. Arts Centre courtyards and plaza +
35. Christchurch Polytechnic Institute Technology (CPIT) courtyards and plazas+
36. Performing Arts Precinct lane and courtyard (indicative) ·

Retail Precinct plazas, lanes and courtyards

37. The Terrace·
38. Cashel Square·
39. South West End·
40. South Central ·
41. South East End ·
42. Stranges Lane +

South Frame plazas, lanes and courtyards

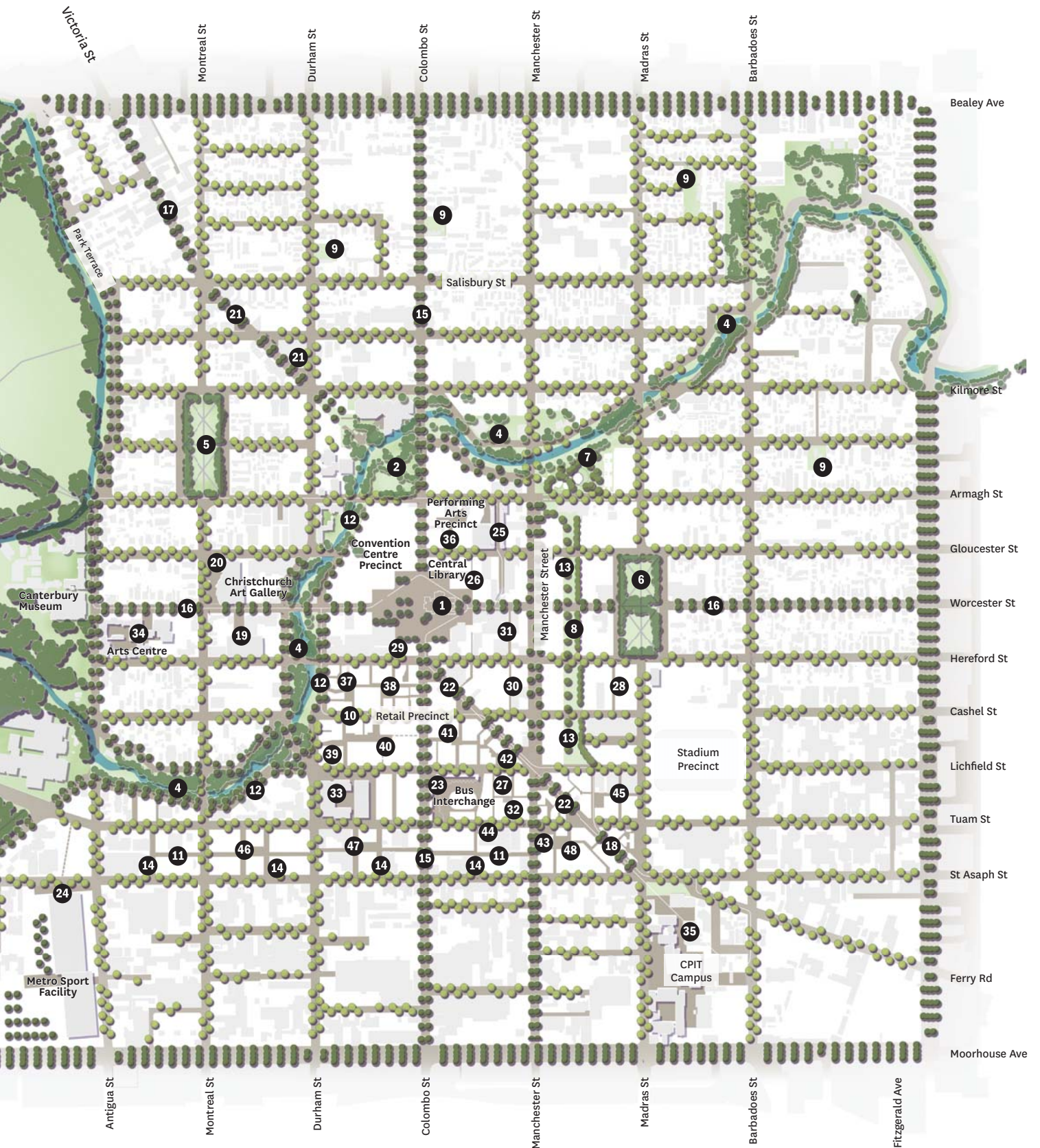
43. Innovation plaza ·
44. Scholars Park ·
45. Innovation Precinct - Poplar and Ash lanes and courtyard *
46. South courtyard ·
47. Mollet Street courtyard ·
48. Innovation courtyard ·

+ Existing

* Existing design to change

· Proposed







FOREWORD

Purpose

The overarching purpose of this Design Guide is to provide a unified and comprehensive reference document for the design and delivery of public realm improvement projects in the central city.

These projects include public realm works delivered through:

- the Christchurch Central Recovery Plan anchor projects
- Accessible City transport projects
- Christchurch City Council’s Long Term and Annual Plans.

Crucial to the Streets and Spaces Design Guide is that it supports the delivery of the Christchurch Central Recovery Plan. This includes delivering An Accessible City, the transport chapter of the Recovery Plan and embracing Ngāi Tahu cultural values. With this in mind, the Streets and Spaces Design Guide has been developed to:

- ensure CERA, CCC and Te Rūnanga o Ngāi Tahu take a consistent approach to public space works across the central city
- outline the expectations that CERA, CCC and Te Rūnanga o Ngāi Tahu have regarding the quality of public realm improvement works
- provide clarity to investors, developers, designers and organisations regarding long-term strategies, principles and criteria

for the design and delivery of public realm projects

- provide tools and a reference source of key guidance to deliver high-quality public realm outcomes.

The expectations from the implementation of the Streets and Spaces Design Guide include that it will:

- bring the community aspirations for the city alive
- leverage the Crown’s and Christchurch City Council’s investment in anchor projects and promote confidence in the central city’s recovery and rebuild
- add value to the anchor projects and attract private investment and development
- highlight the opportunities in and long-term value of the Recovery Plan.

As a long-term and visionary document, the Streets and Spaces Design Guide includes public spaces that:

- at the time of publishing are being designed and/or constructed such as Te Papa Ōtākaro/Avon River Precinct and Manchester Street
- have been identified as projects but on which design work has not yet started, such as The Square and many of the central city streets.

Consequently, a number of the public spaces shown in this design guide will still require design and funding approval.

Who is this document for?

Specifically, the Streets and Spaces Design Guide has been developed to guide CERA, CCC, Te Rūnanga o Ngāi Tahu, ECan and NZTA, and anyone involved in designing and delivering public realm projects in the central city, in particular consultant teams and design professionals.

More generally, this Design Guide will be helpful for anybody who is interested in understanding the network of public spaces in central Christchurch.

In addition to the vision, design principles and criteria, the Streets and Spaces Design Guide provides technical information at a conceptual level. The main purpose of this information is to promote a consistent approach to the design and delivery of public realm projects. These concepts are provided as a tool and will require the skilled interpretation of designers at the detailed design stage of projects. This may involve adapting the concepts to suit and integrate the specific conditions of each location; for example, existing facilities and infrastructure.



FOREWORD

How to use this document

The Streets and Spaces Design Guide is set out in two books.

- This **Strategic Guidance** book provides the vision, design principles and criteria, along with general concepts that should guide the design of the public realm projects for the central city.
- The **Technical Guidance** book will provide the suite of materials, construction details and street furniture to be used in public realm projects in the central city. It will be issued after the Strategic Guidance book is approved.

During the rebuild period the city is subject to regular changes. The Streets and Spaces Design Guide is therefore a 'living' document which is intended to be updated and reviewed as the city evolves.

For convenience, the public realm of the central city has been divided into two groups:

- the **street network**, consisting of places that have a key role in the delivery of the transport chapter of the Recovery Plan, An Accessible City
- the **gathering places**, which often have key interdependencies with the design of the anchor projects identified in the Recovery Plan.

Most gathering places are adjacent to streets, and most building projects will need to address both streets and gathering places. Therefore both groups should relate to and complement each other to create a cohesive public realm network.

This **Strategic Guidance** book has seven chapters.

Chapter 1 provides the vision and design principles for the central city's public realm network. It also outlines the value, components and general structure of this network.

Chapter 2 identifies strategic matters that have informed the guidance and concepts developed in this Design Guide.

Chapter 3 outlines the design criteria that should inform the design of public realm projects in the central city.

Chapter 4 identifies and provides an overview of the gathering places in the central city and how they relate to the anchor projects.

Chapter 5 explains and illustrates plans and design concepts for the central city street network and how they contribute to the implementation of Accessible City.

Chapter 6 describes the public realm component of the anchor projects and identifies important relationships with other anchor projects, gathering places and the street network.

Chapter 7 briefly outlines key aspects for the implementation of public realm projects in the central city.

To make this document as easy as possible to navigate, cross-references to specific topics and interdependencies are included through the document.

For example, there is a three-step process to apply the Streets and Spaces Design Guide to individual projects.

1. Understand the strategic approach outlined in Chapter 2 and review the design criteria in Chapter 3 of this document. Use these criteria to guide the design process.
2. Identify the public space typology for gathering places in Chapter 4 or the relevant street hierarchy in Chapter 5 of this document. Apply relevant design considerations and standards to the design.
3. Use Book 2, Technical Guidance, to select materials, construction details and street furniture.

Strategic Guidance Book - Chapters



Figure 1 Strategic guidance book chapters. This icon appears in most standard pages, as shown below. It highlights key related chapters.

STANDARD PAGE

Places for People

The Design Criteria outlined in the following pages should be used to inform the design of streets and gathering places in the central city.

The Criteria identifies key design considerations that will assist in making the Vision for the Public Realm Network of central Christchurch a reality. These design considerations should form an integral part of the design process.

The rationale behind each of the criteria is to create places that the people of Christchurch will cherish because they are at the centre of how these places are experienced.



KEY RELATED CHAPTERS

DESIGN CRITERIA 03
 CHAPTER



PAGE NUMBER
 DESIGN CRITERIA | PRMP | PAGE 47

Figure 2 Reference elements in a standard page of the strategic guidance book.

*“First we shape
cities, then they
shape us”*

Jan Gehl



01

INTRODUCTION
Kōrero Whakataki

What is the Public Realm?

The term 'public realm' is often used to describe the spaces between buildings that are publicly accessible.

Cities are places where people come together, exchange, trade and enjoy sharing time and ideas with each other. The public realm provides the stage for these exchanges and the everyday activities of a city.

Key aspects that influence the attractiveness of the public realm are:

- the **people** who use it and the **activities** that take place in the public realm
- how people **move** through it or **pause** within it
- The historical, cultural and natural landscape **context**
- the **elements** within the space and the way it is **designed**
- the **buildings** that shape it.

People use and experience the public realm in different ways and at different speeds. Activities such as commuting, recreating, socialising, exercising, trading, walking, pausing, cycling, watching other people, or travelling by car or public transport, all take place in the public realm.

The most intimate experiences of the public realm are generally from the perspective of pedestrians, and it is from this perspective that the success of the public realm is most often judged.

When each space is thoughtfully designed with respect to the human experience and the immediate physical and cultural context, it becomes a *place*. The best places entice people to use them, invite them to stay, and beckon them to return.

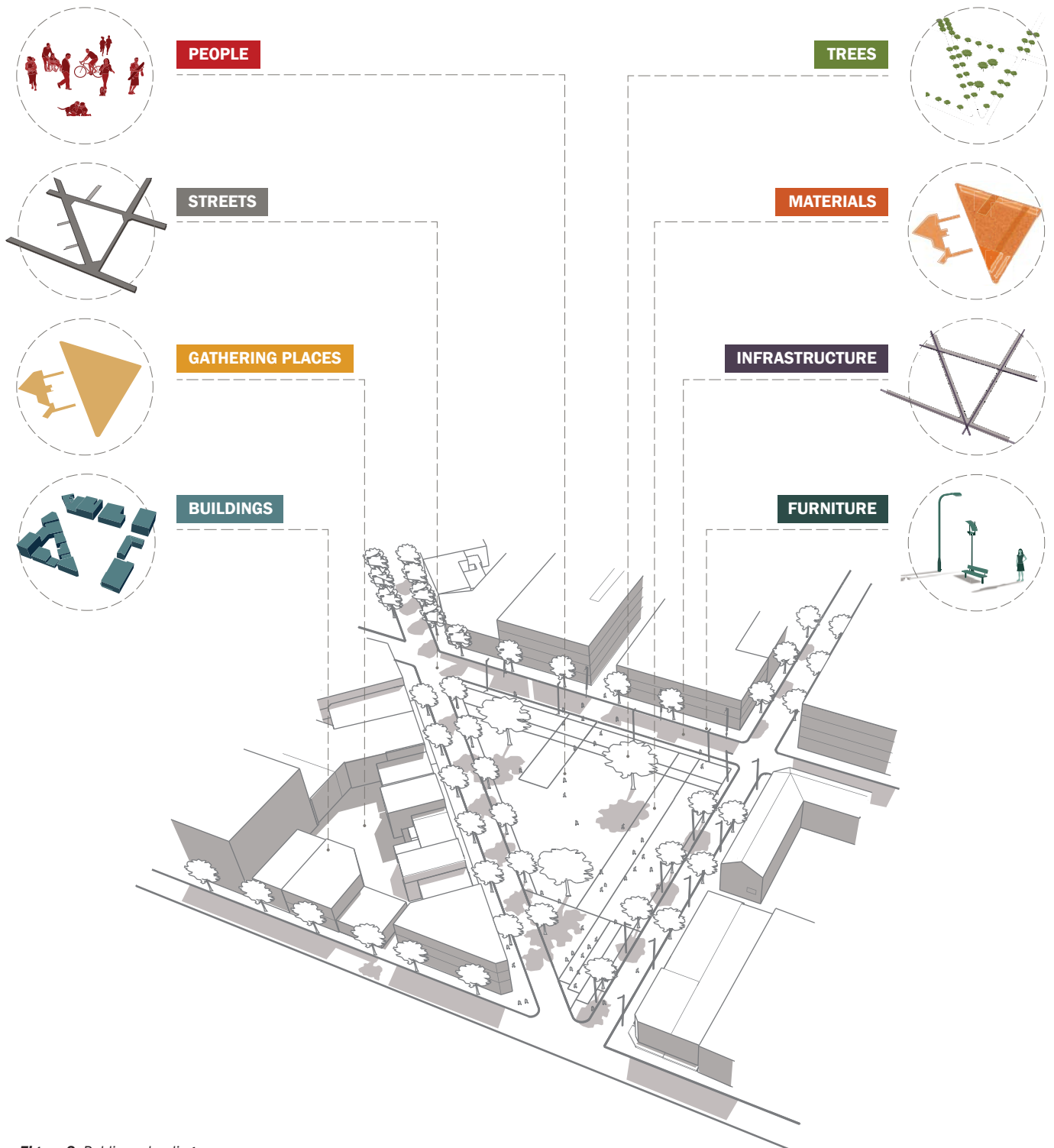


Figure 3 Public realm diagram

Value and benefits of the public realm

The public realm has a significant influence on how we use and perceive a city. A common feature of the great cities of the world is that they have a quality public realm.

The value of the public realm relates to its ability to raise the quality of life in urban centres and contribute to happier, healthier and more productive communities. There is a growing body of research focused on identifying and measuring the benefits of high-quality public realm.¹ These benefits include the following.

Increased economic value and activity

- Well-designed cities are better placed to attract the companies, employees, services, customers and investment required for a competitive economy.
- High-quality public realm increases property values.
- An engaging public realm increases foot traffic in retail areas.

Urban amenity

- A well-designed public realm network creates ease of movement, improved accessibility and comfort. These qualities, in turn, increase safety, productivity and reduce the economic cost of congestion.

Social cohesion and sense of community

- The public realm provides places and opportunities for social interaction for all age groups and social backgrounds. Social cohesion makes communities more productive and resilient.

Health and wellbeing

- A well-designed public realm helps us enjoy healthier lifestyles by providing opportunities for physical activity. This translates into fewer resources needed to deal with illnesses related to obesity and sedentary lifestyles.
- Public spaces provide opportunities to relax and unwind, contributing to people's mental wellbeing.

Environmental resilience

- The way the public realm is designed can significantly contribute to better air and water quality, storm water management, reduced carbon emissions, increased biodiversity and adaptation to climate change.
- A public realm which is well integrated with local landscapes and ecological systems preserves future access to natural resources. It also promotes self-sufficient and more sustainable food economies.

Identity and image of a city

- The design of the public realm is a powerful tool to shape the image, perception and cultural awareness of a city. Cities with a strong sense of place create civic pride and sense of belonging. They also attract more visitors and are sought-after locations for living and doing business in.

Safety

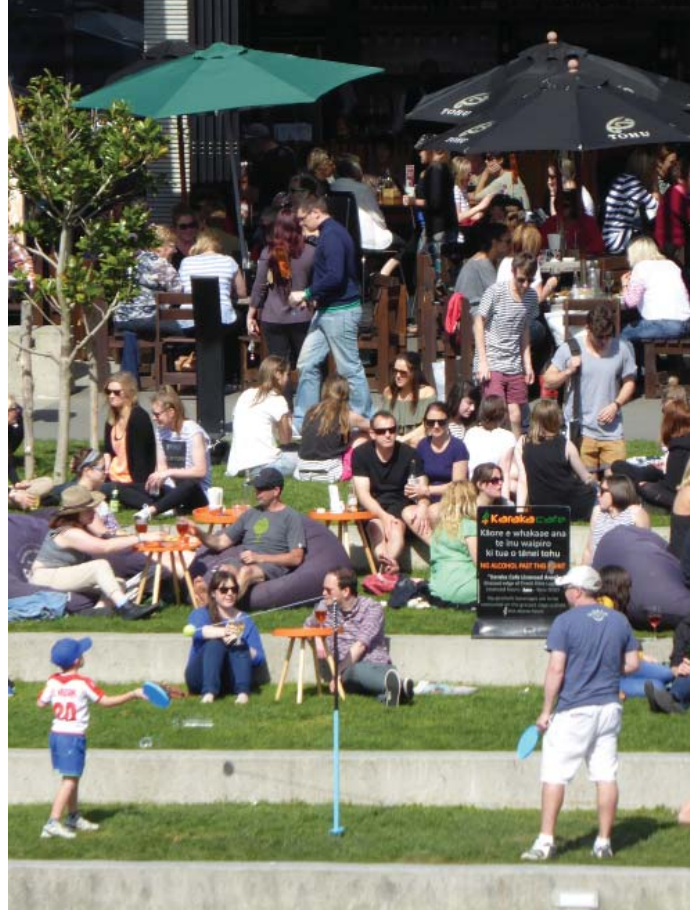
- A high-quality public realm attracts more people and activity, by day and by night, which in turn positively contributes to the perception of safety and reduced crime.
- A well-designed public realm creates a more accessible and welcoming city for all.

¹ Social Cities – Grattan Institute, 2012

The Value of Public Realm – Commission for Architecture and the Built Environment, 2003

The Walkable City, Jeff Speck, 2013

Public Space in the Global Agenda for Sustainable Urban Development. The "Global Public Space Toolkit", UN Habitat, 2014

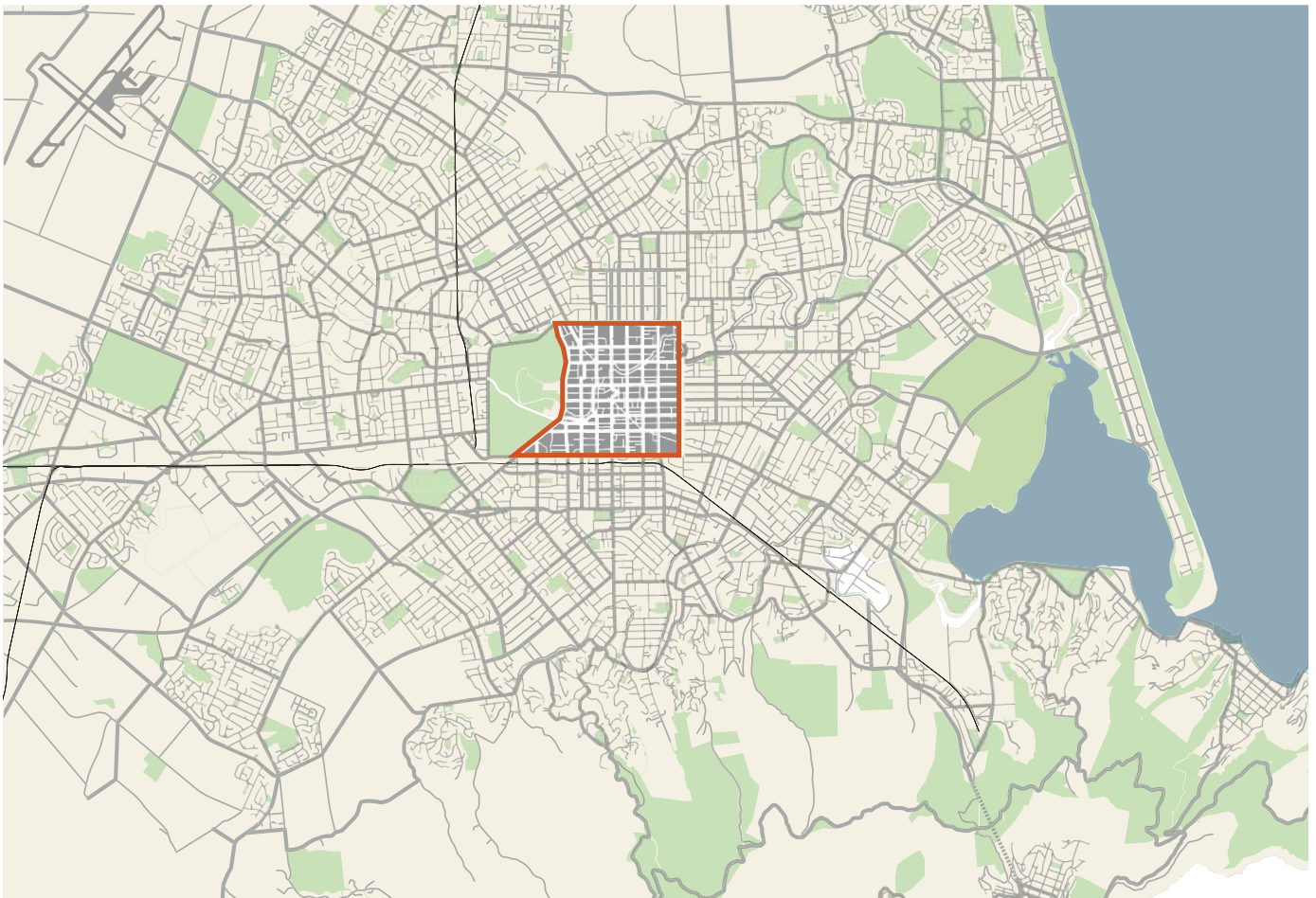




Scope

The Streets and Spaces Design Guide has been prepared for the area bounded by Park Terrace and Bealey, Fitzgerald, Moorhouse, Hagley avenues. The Streets and Spaces Design Guide does not include Hagley Park. This area is referred to as the central city, central Christchurch or Christchurch Central.

While the Streets and Spaces Design Guide focuses specifically on the central city, it has been prepared with regard to the context of greater Christchurch and the values of Ngāi Tahu.



Legend

 Application area



Figure 4 Streets and Spaces Design Guide application area

Central city public realm

Around 120 hectares within the 420 hectares of the central city area is spread throughout the city as public realm; this is approximately three-quarters the size of Hagley Park.

The plans in Figures 5, 6 and 7 illustrate existing and proposed public realm in the central city. They include:

- established places that will be renewed as part of the rebuild process, such as the Ōtākaro/Avon River and the street network
- proposed new places such as the Central Park in the East Frame residential precinct and the new public realm network in the South Frame
- existing places such as Latimer and Cranmer Squares
- privately owned but publicly accessible places, such as the courtyards in the Arts Centre.

Some of these places are redevelopment projects which are at different stages in the planning, design or funding approval process. Consequently, a number of the public spaces shown still require design and funding approval and may be subject to change of location or design. However, the purpose of mapping them all on one plan is to illustrate how they may work together as a **network**.

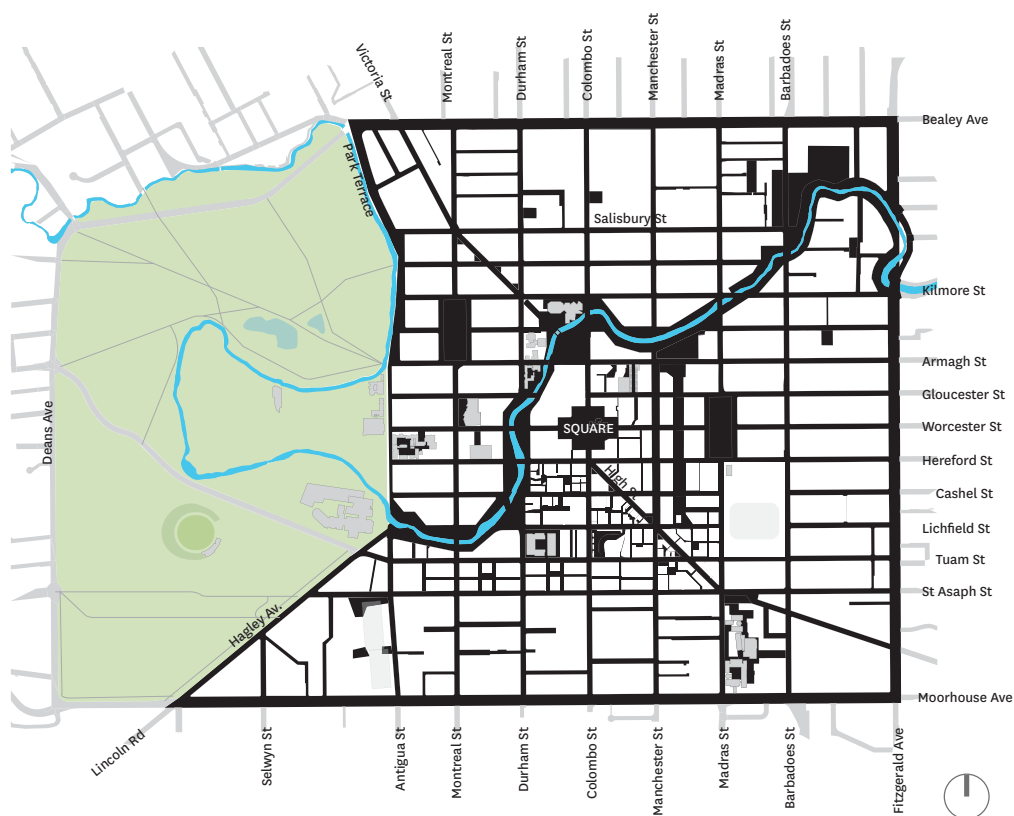


Figure 5 Existing and proposed public realm network.

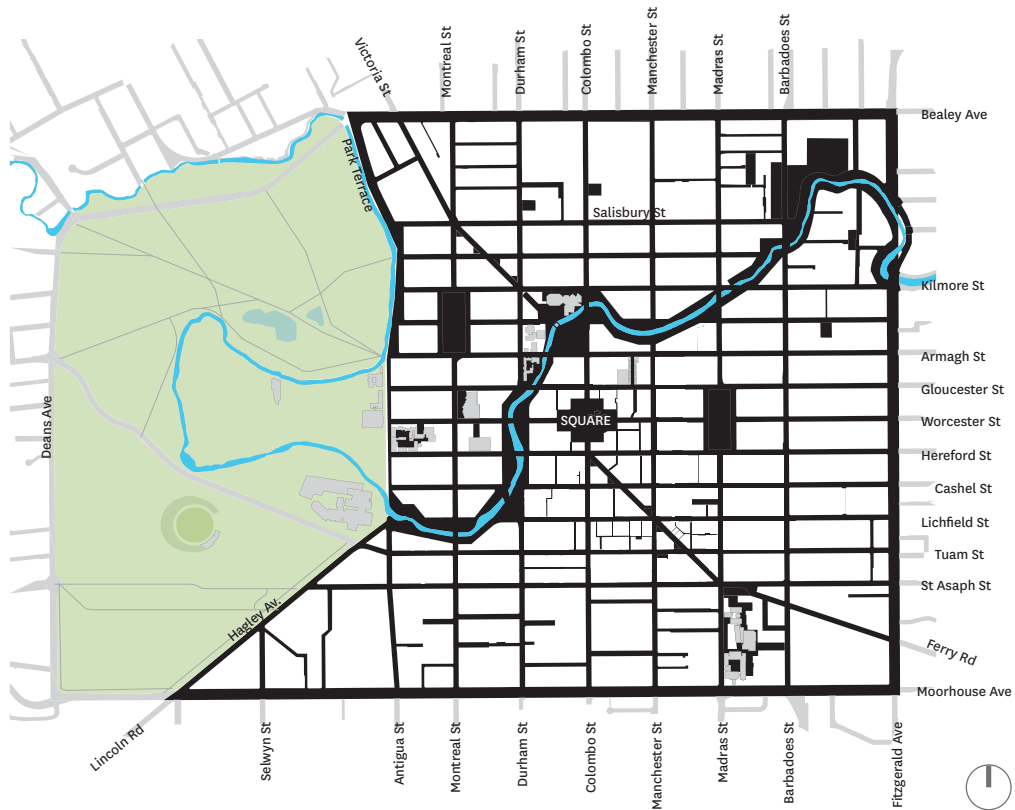


Figure 6 Existing public realm network.

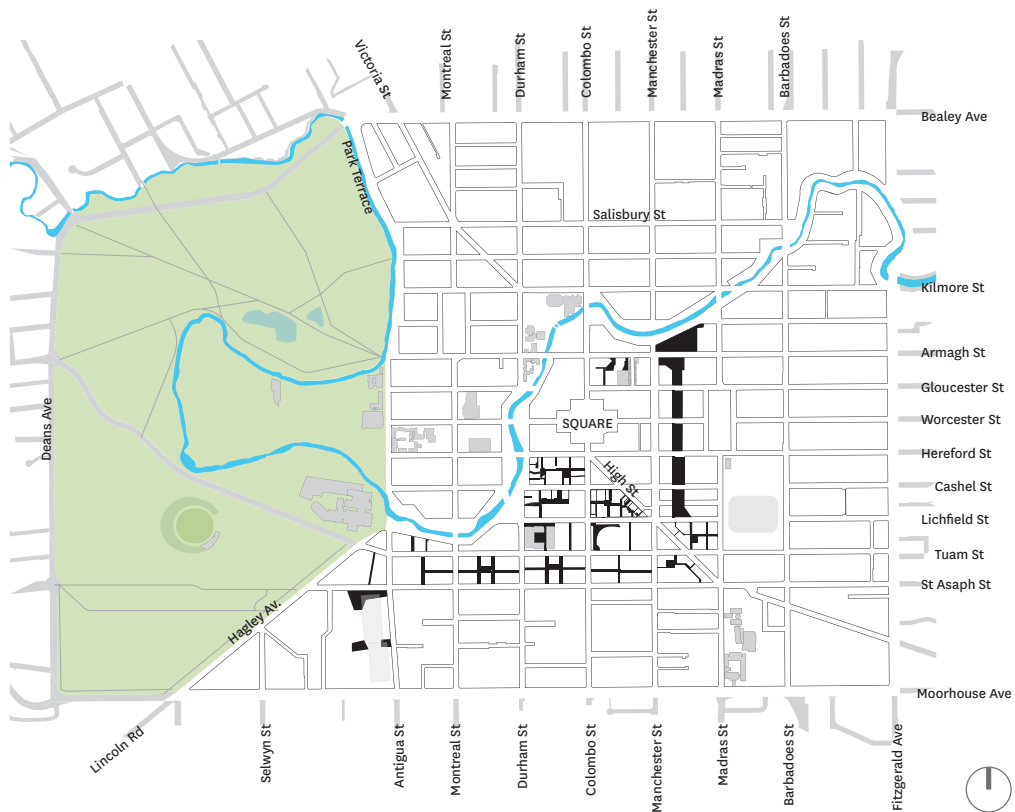


Figure 7 Proposed new public realm spaces.

Central city public realm

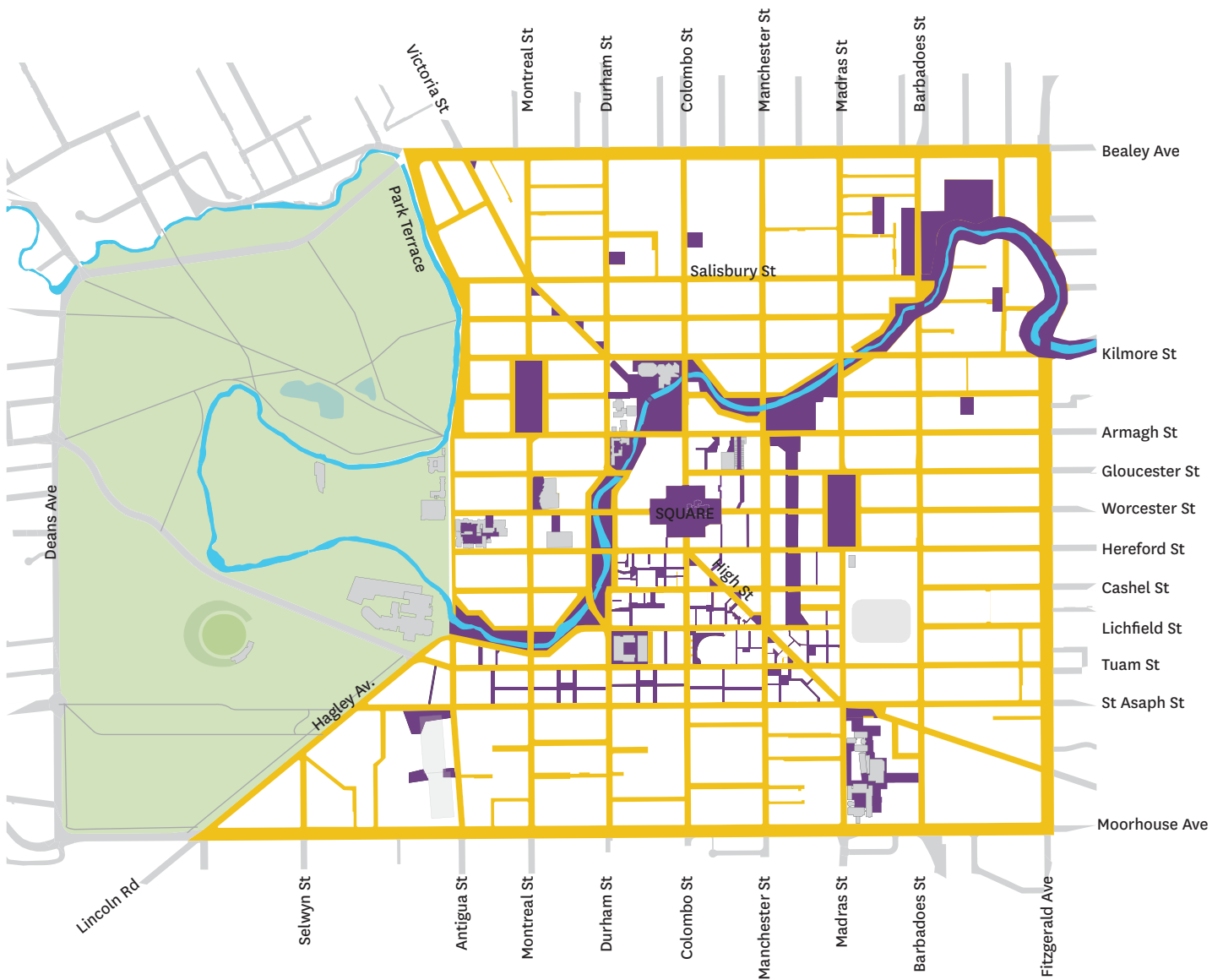
For the purpose of this document, the public realm network is organised into two major groups: the gathering places and the street network.

The **gathering places** include parks, plazas, gardens, squares, markets, forecourts, waterfronts, civic and open spaces and publicly accessible internal courtyards, gardens and squares. Detailed information on these spaces is provided in Chapter 4 of this document.

The **street network** includes streets, boulevards, avenues, arcades, lanes, alleys and bridges. The street network

has a key role in the delivery of An Accessible City, the transport chapter of the Christchurch Central Recovery Plan (Recovery Plan). The street network is discussed in detail in Chapter 5 of this document.

The design criteria that should inform the design of both the gathering places and the street network are outlined in Chapter 3 of this document.



Legend



- Gathering places
- Street network

Figure 8 Central city gathering places and street network

Central city public realm

The urban fabric of Christchurch has distinct elements that are unique to this city. Because they are unique to central Christchurch, part of the city's DNA, they play a key role in shaping the 'ethos' of the city, its sense of place, its identity.

The uniqueness of central Christchurch can be strengthened and celebrated by highlighting these elements of the public realm.

NATURAL AND CULTURAL LANDSCAPE

The places of significance for Ngāi Tahu.

THE GRID

The colonial settlement pattern of 220-metre by 100-metre blocks defines long east-west and short north-south streets. Latimer and Cranmer Squares are differentiated within the grid by its north-south orientation.

ŌTĀKARO/AVON RIVER

The river breaks the regularity of the grid, traversing the city diagonally from the northeast to the southwest. It brings water and greenery to the city.

THE AXIS

The grid is symmetrically divided by central east-west and north-south axial streets: Colombo Street and Worcester Boulevard.

CATHEDRAL SQUARE

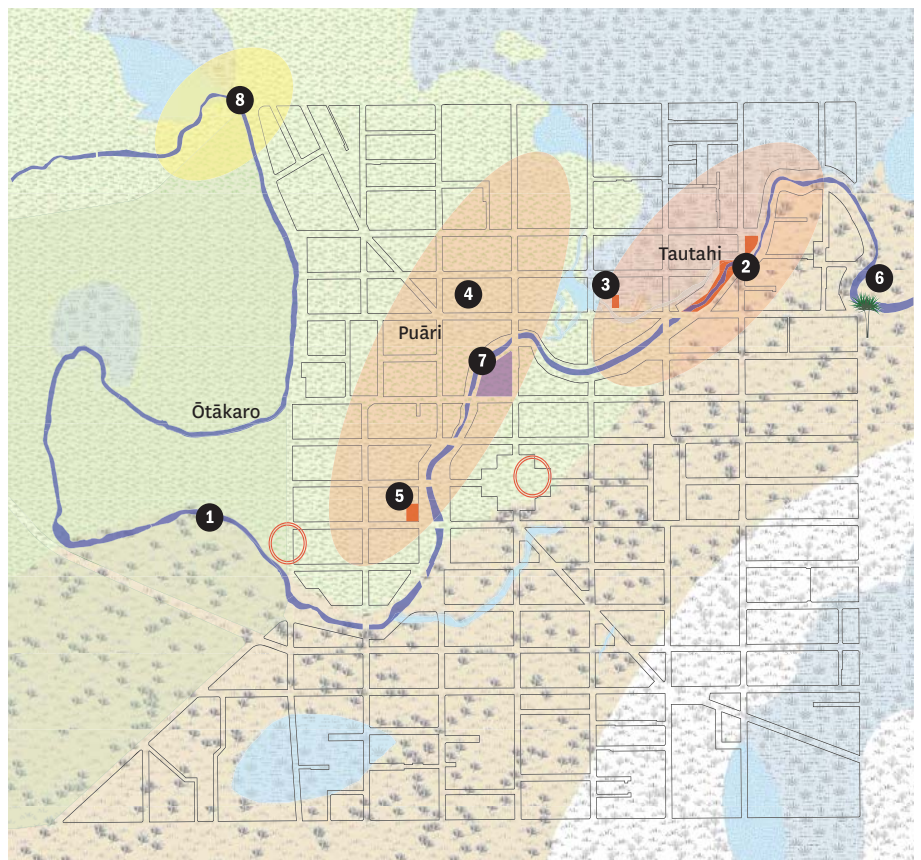
At the geographical centre of the grid where the two axes intersect, the Square creates the heart of the city.

THE DIAGONALS

Victoria and High streets break the grid in an opposite direction to the river. Traditionally the routes to the outskirts of the settlement, they still are distinctive gateways to the city.

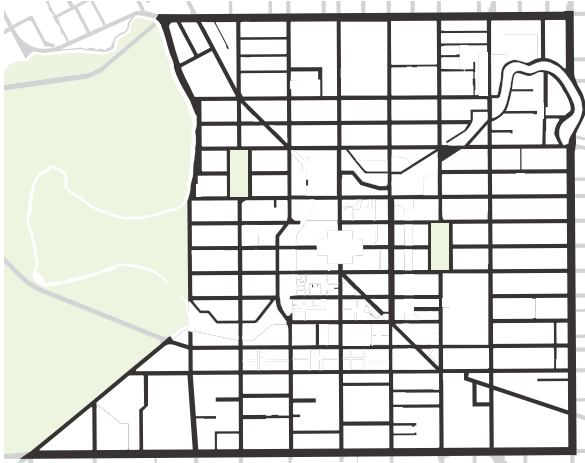
THE LANES AND COURTYARDS

Originally provided to service the blocks, the central lanes have evolved over time. Together with an emerging network of courtyards they now provide an additional layer of discovery and intimacy to the contemporary city.

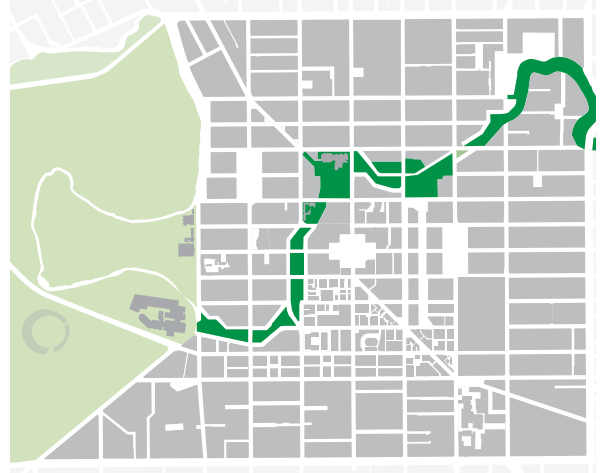


NATURAL AND CULTURAL LANDSCAPE

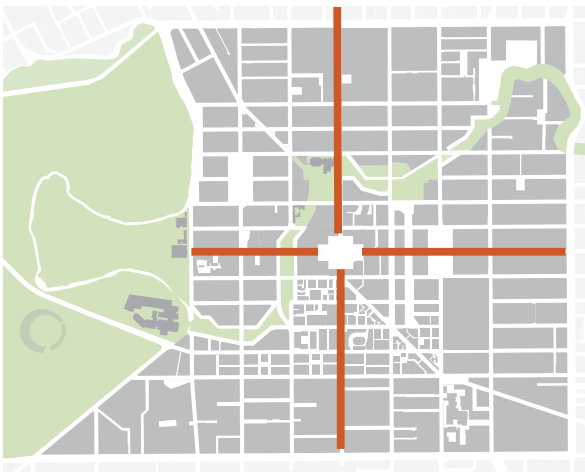
1. Ōtākaro (Avon River) and Ōpāwaho (Heathcote River), mahinga kai (food and resource gathering place)
 2. Tautahi, mahinga kai and kainga nohoanga (village settlement)
 3. Tautahi Rua Kōiwi, Kōiwi tangata (human remains)
 4. Puāri, mahinga kai and kainga nohoanga
 5. Puāri Pā Urupā, urupā (burial place)
 6. Tī Kouka (fishing marker), a tī kouka (cabbage tree)
 7. Market Square (currently known as Victoria Square), early trading site between Ngāi Tahu and European settlers
 8. Little Hagley Park, meeting and resting place for Ngāi Tahu, mostly Ngāi Tūāhuriri
- NZAA Māori archaeological sites



THE GRID



ŌTĀKARO/AVON RIVER



THE AXIS



CATHEDRAL SQUARE



THE DIAGONALS



THE LANES AND COURTYARDS

Vision

“By 2025 central Christchurch streets and public places will be greener, easier to move around and full of people enjoying a vibrant city life”.

Mō tātau, a mō ka uri, a mauri ake nei
[For us, and our children after us]





Legend

- | | | |
|--|----------------------------|---|
| 1. Cathedral Square | 5. Latimer Square | 8. South Frame Greenway |
| 2. Victoria Square | 6. East Frame Central Park | 9. Retail Precinct plazas, lanes and courtyards |
| 3. Te Papa Ōtākaro/Avon River Precinct | 7. City Mall | 10. South Frame plazas, lanes and courtyards |
| 4. Cranmer Square | | |

Figure 9 Illustrative public realm network vision

Design principles

The design principles identify key attributes that public realm projects should have so that they contribute to delivering the vision for the public realm network of central Christchurch.

Under each design principle, the Streets and Spaces Design Guide provides specific design criteria, which are outlined in Chapter 3 of this document. The design criteria should inform all public realm projects in the central city.

CHRISTCHURCH CENTRAL RECOVERY PLAN



PUBLIC REALM NETWORK PLAN VISION



GUIDING THEMES

Vibrant, Identity,
Accessible, Green



DESIGN PRINCIPLES

Comfort, Legible, Green,
Sense of Place, Creative
and Inviting, Walkable,
Resilient and Flexible, Safe



DESIGN CRITERIA

Streets and
Gathering Places



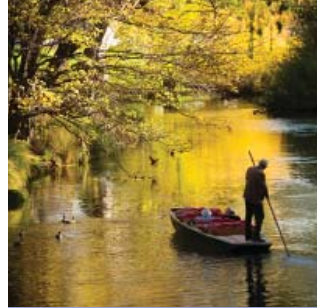
COMFORT
Wāhi Tāngata

Design public places and streets with high standards of pedestrian comfort and convenience.



CREATIVE AND INVITING - He Wāhi Pōwhiri Tāngata

Foster a sense of interest and surprise in the everyday experience of the central city.



SENSE OF PLACE
He Tūrangawaewae

Design the public realm to reflect the context and identity of Christchurch, its character, culture, history, values and aspirations.



SAFE - Haumarū

Design the public realm to positively contribute and respond to the actual and perceived sense of safety in the central city.



WALKABLE
He Wāhi Hikoi

Create a consistently high-quality and well-connected pedestrian and cycling network that attracts people of all ages to spend time in the central city streets and public places.



RESILIENT AND FLEXIBLE
He Manawa Tītī

Design the public realm network as a system that can adapt to change and evolve with the needs and functions of the city.



LEGIBLE
Wāhi Haumarū


Contribute to a city centre that is easy to understand and to navigate for locals and visitors alike, including those with mobility needs.



GREEN
Whenua Haumako

Introduce more trees, landscaping and gardens into the city centre; improve water management and air quality to foster a healthier natural and urban environment.

Figure 10 Public realm network plan design principles

A photograph of a cyclist riding a road bike on a city street. The cyclist is in the foreground, wearing a blue t-shirt, dark shorts, and a black helmet. The background shows a busy urban street with various shops, including 'Easy Way', 'sushi sushi', 'diamonds', and 'paul bran'. There are many trees and people walking on the sidewalks. The scene is bright and sunny.

“Biking is the most efficient form of transportation yet invented. Using the same amount of energy you get 3 times as far as walking (and 60 times as far as driving a car).”

Cities for people, 2010

02

**STRATEGIC
APPROACH**
Mahere Rautaki

Who are we designing for?

The Christchurch Central Recovery Plan (Recovery Plan) promotes a bold vision for the future of the central city. Essential to this vision is attracting more people to central Christchurch as a place to live, work and visit.

It is estimated that by 2041:

- the central city will be home to 60,000 jobs, up from around 50,000 pre-quake, which will be the largest concentration of employment in the region
- there could be up to 20,000 people (around 10,000 households) living within the four avenues, an increase of nearly 12,000 on pre-quake levels

Central Christchurch has been experiencing a steady increase in the number of tourists and students in the city. In 2014, the student population reached pre-earthquake numbers with over 5000 full-time equivalent students, primarily from the Christchurch Polytechnic Institute of Technology.

Changes in the demographics and land uses in the central city will necessarily influence how the city is used.

The public realm can play a key role in shaping central Christchurch as a welcoming and vibrant place for all.

To realise this potential, it is important that the streets and public places in the city centre function in these three key ways.

- Cater for different user and age groups.
- Support a wide and well-distributed range of social, recreational and leisure activities.
- Meet the transport needs of people and businesses.

CATER FOR DIFFERENT USER AND AGE GROUPS

Among these groups would be residents, workers, tourists and visitors, including young and old, single people, families, children, students, professionals and people with mobility needs.

SUPPORT A WIDE AND WELL-DISTRIBUTED RANGE OF SOCIAL, RECREATIONAL AND LEISURE ACTIVITIES

Activities would include gathering and socialising, cultural and entertainment activities, shopping, meeting clients, leisure activities that complement compact living, watching other people and promenading, outdoor dining, exercising or relaxing during lunch breaks.

MEET THE TRANSPORT NEEDS OF PEOPLE AND BUSINESSES

These needs would include walking, cycling, using public transport, driving private vehicles, taxis, service deliveries, emergency vehicles and coach drop-offs.

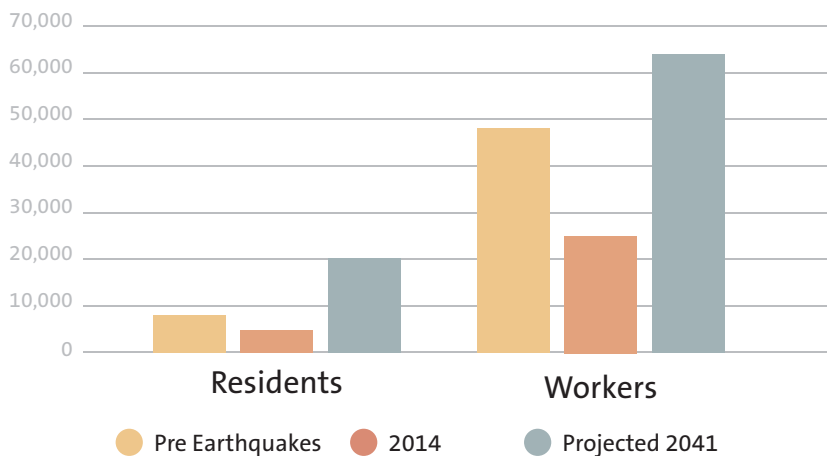
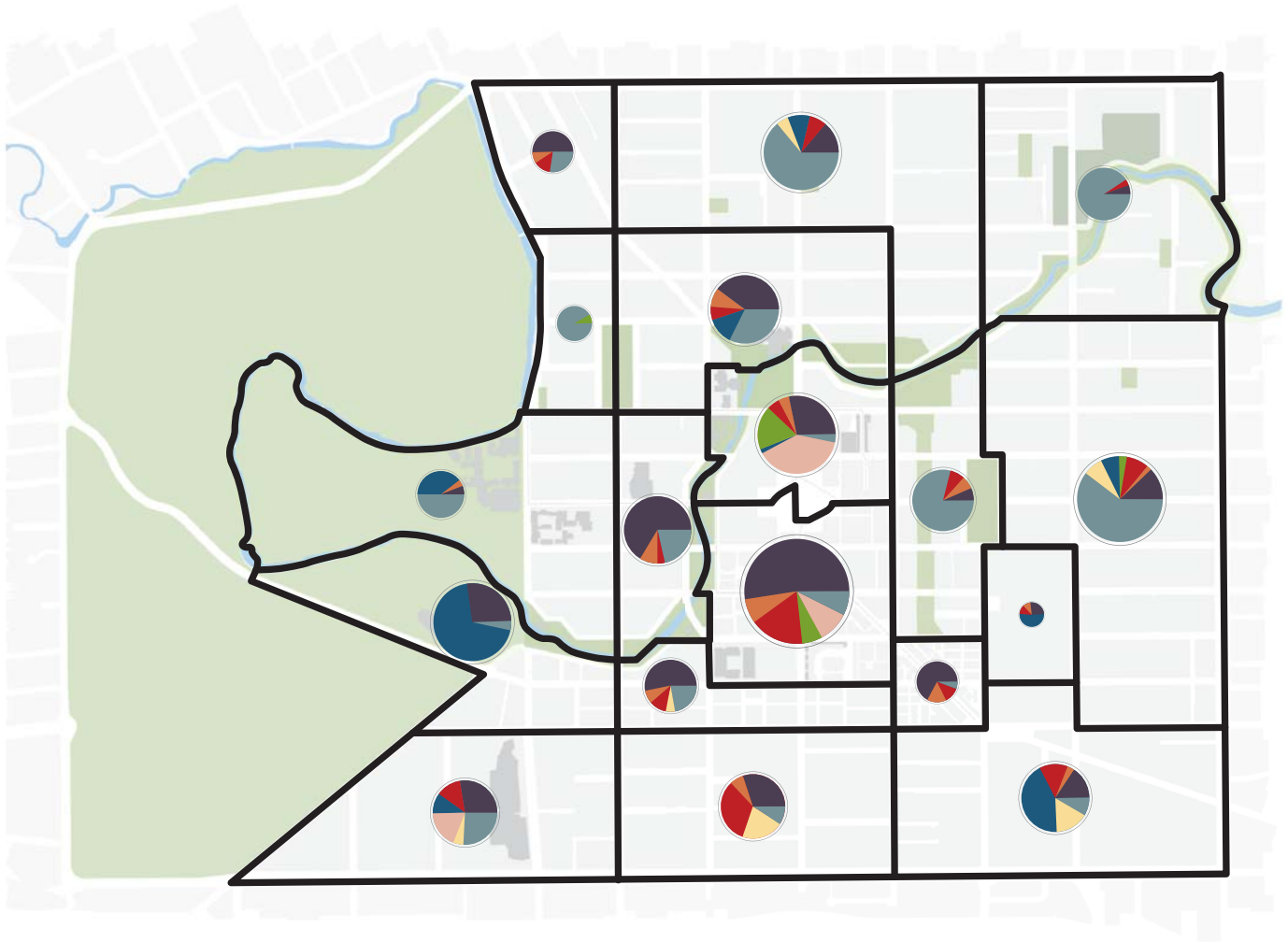


Figure 11 Pre-earthquake, current and projected resident and worker populations in the central city.



The plan below illustrates the indicative distribution of land uses across the city as expected in the Recovery Plan. To create a welcoming and inclusive central city, the public realm network needs to be planned and designed with the likely users of these places in mind.



Legend

- | | | | |
|-------------|-----------|-------------|--------|
| Office | Hotel | Industrial | Retail |
| Hospitality | Community | Residential | Anchor |

Figure 12 Indicative distribution of land uses across the city as expected in the Recovery Plan.

Supporting the implementation of Accessible City

An Accessible City is the transport chapter of the Christchurch Central Recovery Plan. Its role is to support the Recovery Plan through a rebalanced transport system for the central city.

The Recovery Plan promotes a significant increase in the number of people living and working in and visiting the central city. Achieving this goal will increase movement activity. Accessible City acknowledges that, as part of the recovery process, by 2041 traffic volumes may return to pre-earthquake levels. Accessible City supports the Recovery Plan by:

- enabling increased activity in the central city without worsening traffic congestion
- increasing travel choices
- providing more enjoyable journeys.

It does this by prioritising routes for different travel modes – walking, cycling, public transport and general traffic.

Accessible City supports the economic, social and environmental recovery of the central city by:

- defining how the different modes of travel will be distributed in the street network
- promoting increased pedestrian movements as part of overall journeys
- promoting the tripling of bus patronage and cycling to and from the central city
- significantly reducing the amount of through traffic in the central city.

Key initiatives to meet these objectives include:

- creating the conditions for a more pedestrian-friendly city core
- providing improved and well-connected walking, cycling and public transport routes and facilities
- creating lower speed zones and reducing speed limits on a number of key streets, especially in the Core of the central city
- redirecting traffic without a destination in the central city to make better use of the surrounding avenues
- improving the four avenues to accommodate increased movement.

For further detail on Accessible City, visit: <http://ccdu.govt.nz/the-plan/an-accessible-city>

Chapter 5 of this Design Guide provides guidance on how Accessible City informs the design of the street network.



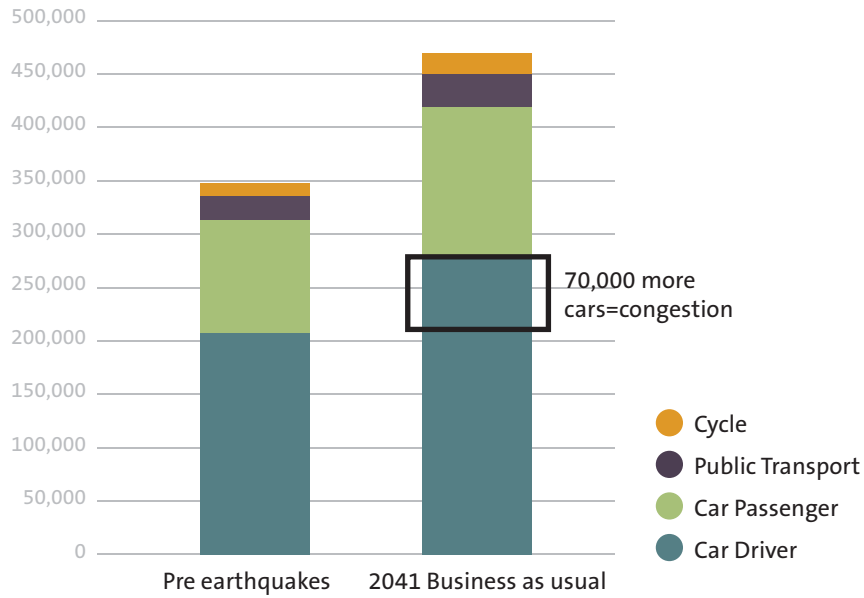


Figure 13 Traffic congestion in the central city is likely to increase without Accessible City initiatives.

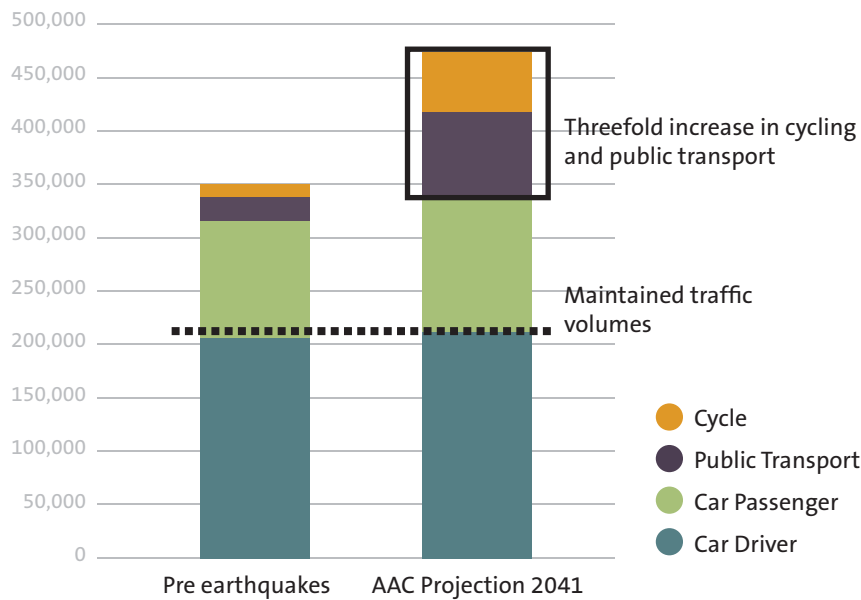


Figure 14 Accessible City seeks to support increased activity and movement without worsening traffic congestion.

Capitalising on existing infrastructure

This approach aims to reshape the quality and functionality of the public realm network while making the most of what exists now. This work includes the repairs being completed by the Stronger Christchurch Infrastructure Rebuild Team (SCIRT).

The rationale for this approach is to create a fit-for-purpose network that:

- delivers for the best value for money
- allows for the continued recovery of the central city streets
- provides flexibility to be implemented in stages.

This approach involves: maintaining most of the existing alignments of street kerbs; introducing an amenity zone; and integrating existing underground infrastructure.

Maintaining the existing alignment of street kerbs in most places

Relocating kerbs is a costly exercise in itself and also has associated costs, including the costs involved in relocating underground services and utilities, stormwater and drainage systems and in regrading pavement surfaces.

In some selected locations, however, relocating kerbs may be justifiable.

Examples are when the overall benefits of a wider footpath outweigh the cost of the works or where a full earthquake repair is needed but has not yet been undertaken.

Introducing an ‘amenity zone’ to the street corridor

Part of the existing carriageway will be used to relocate or introduce elements that improve the experience of the street for all users. The amenity zone can be created within the existing street layout and provides a number of services.

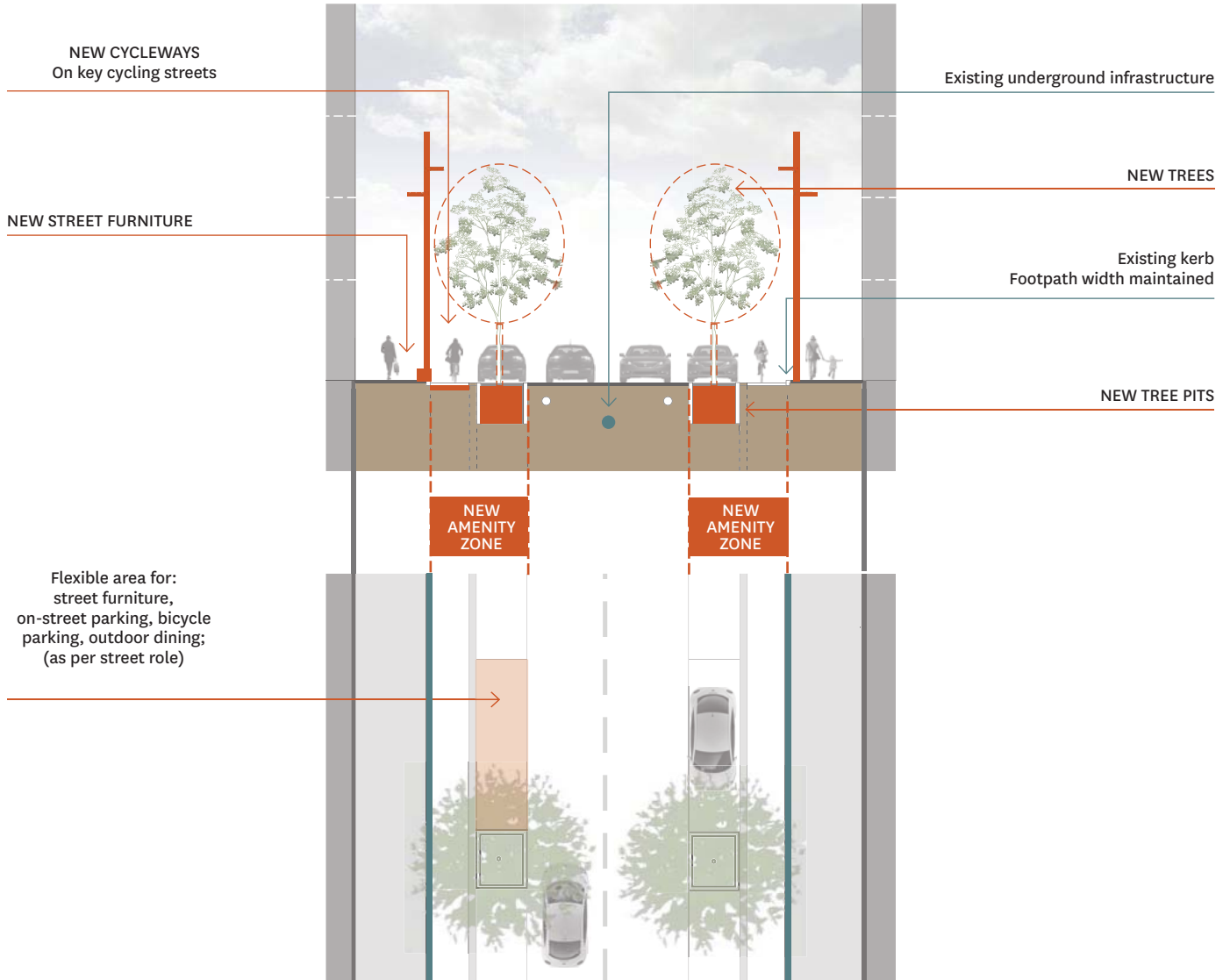
- **Improved walking conditions.** The existing footpaths in the central city are generally 3 metres wide. This area is often reduced by elements such as tree pits and street furniture. Relocating these elements in the amenity zone frees up the area of existing footpaths, especially where these are likely to be busy.
- **Improved cycling conditions.** The amenity zone provides separation for cyclists along the streets identified as key cycling routes.

- **Increased greenery.** The amenity zone allows for the introduction of street trees with good growing conditions and at more regular intervals. These help to rationalise and landscape street parking areas. As the tree pits are flush with the pavement, integrated water management can be explored.
- **Improved conditions for slower, pedestrian-friendly streets.** The amenity zone visually narrows the street corridor, which helps to slow down vehicles.

Integrating existing underground infrastructure

Relocating underground infrastructure can significantly increase the cost and timeframes of streetscape works. In some instances, however, relocating various underground facilities in a more efficient way may be justifiable to ensure the future performance of facility networks. Some overhead utilities may also warrant undergrounding.





Legend

- Existing infrastructure
- Introduced elements

Figure 15 Indicative diagram showing integration of existing and new infrastructure

Strengthening the central city's green infrastructure network

Green infrastructure refers to natural elements such as street trees, rain gardens, planting and grassed areas that can be integrated into the public realm to create a 'greener city'.

This is something Christchurch people asked for through the 'Share an Idea' consultation in 2011 and is part of the model for the sustainable central city envisaged in the Recovery Plan.

A robust green infrastructure network can provide significant environmental, economic, social and cultural benefits to the central city by:

- improving air and water quality
- strengthening the city's sense of place, including its Garden City identity image and its Ngāi Tahu / Ngāi Tūāhuriri cultural identity.
- supporting tourism
- creating attractive spaces to encourage customers to linger in retail and commercial areas
- increasing property values through increased amenity
- attracting new residents and businesses to the central city
- increasing biodiversity through restored ecosystems
- improving stormwater management
- contributing to climate adaptation, carbon storage and urban heat reduction
- creating conditions for increased physical activity and improved health outcomes

- improved wellbeing through enhanced connectedness to elements of the natural landscape
- restoring cultural values by re-establishing mahinga kai in the central city green public spaces

Green infrastructure also provides an effective way of addressing the Christchurch Climate Smart Strategy (2010-2025) and the Christchurch Transport Strategic Plan (2012-2042) targets for reducing transport-related greenhouse gas emissions.

In addition to providing the environmental, social and economic benefits listed above, introducing trees into the existing carriageway:

- supports the proposed low-speed zone by reducing the visual width of key streets
- creates a better human scale, thereby improving the overall experience of the city.

The streets and places that make up the public realm network constitute a significant proportion of the total land area in the central city. Integrating a robust green infrastructure into the public realm is an essential part of creating a sustainable and green central city.

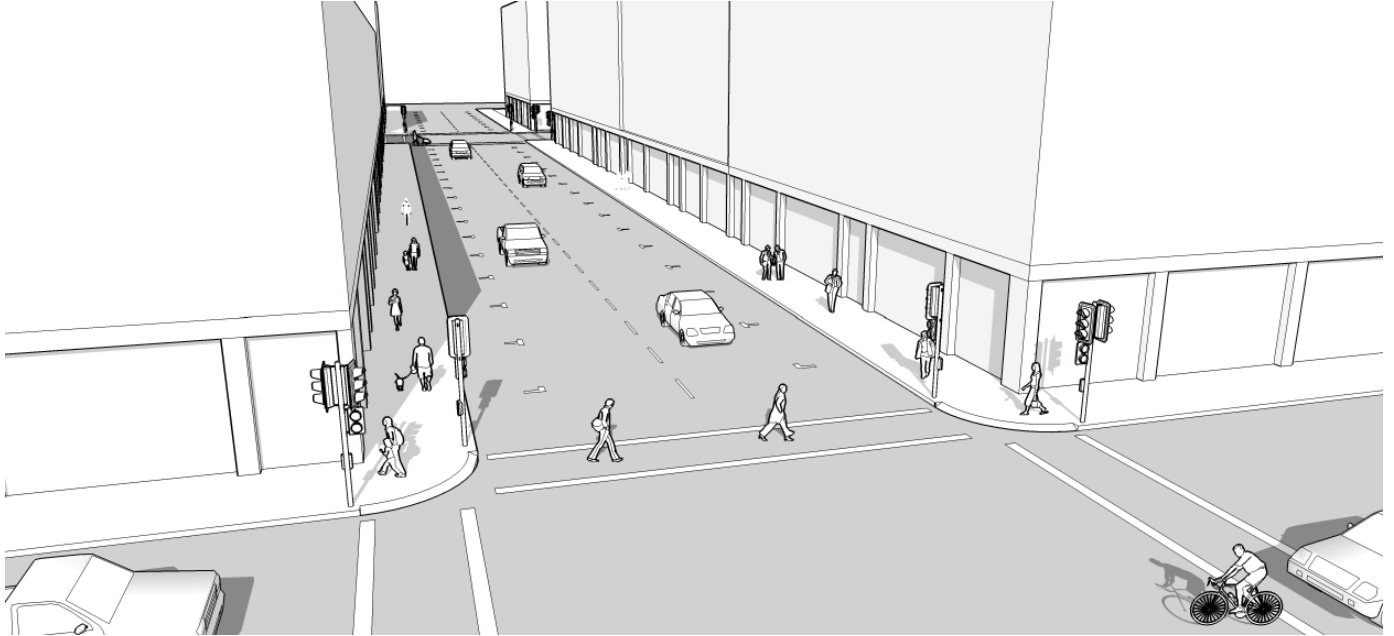
The City of Melbourne* investigated the value of environmental benefits of trees through the tool i-Tree Eco. It established that 982 trees along five of its key streets:

- remove 0.5 metric tonnes of air pollution per year at a dollar benefit of \$3,820
- store 838 metric tonnes of carbon at a dollar value of \$19,100
- sequester 24 metric tonnes of carbon each year at a dollar value of \$548 per year
- save \$6,370 in energy costs each year through shading buildings in summer and providing solar access in winter
- avoid carbon emissions by reducing energy use by \$114 per year.

When extrapolated across the entire population of trees in Melbourne (70,000 trees), these findings provided measured evidence that trees are a very valuable environmental asset.

**Melbourne Urban Forest Strategy 2012-2032*





PROPOSED CHANGE



Figure 16 Example of a typical street in the central city, wide carriage ways, lack of pedestrian scale and amenity.



Figure 17 Example of proposed change. Street where trees have been introduced in the carriage way. Improved amenity for all users.

Embracing Ngāi Tahu cultural values

One of the Christchurch Central Recovery Plan aspirations is to rebuild a city that speaks to our sense of place, our identity and our shared cultural heritage.

Māori culture and identity underlines New Zealand’s point of difference in the world. Ngāi Tahu values therefore provide Christchurch with an opportunity to rebuild the central city with a strong and unique sense of place and identity.

Ngāi Tahu people and their ancestors have been part of the fabric of the Ōtautahi/Christchurch landscape for many centuries. Ngāi Tahu lived on a vast area of waterways and tributaries which branched off from the main rivers of Ōtākaro (Avon), Ōpāwaho (Heathcote) and Pūharakekenui (Styx). These waterways and catchments provided locations for food harvesting, rituals and community life.

The local Ngāi Tahu sub-tribe that holds mana whenua (customary rights and responsibilities) for the central Christchurch area is Ngāi Tūāhuriri. Their responsibilities include the protection and enhancement of sites of significance such that they can provide for the prosperity and enjoyment of present and future generations.

Strategic Ngāi Tūāhuriri objectives in contributing to the Streets and Spaces Design Guide for the central city are:

- restoring the visibility of Ngāi Tūāhuriri and Ngāi Tahu values and narratives in the central city public realm
- identifying and promoting urban design solutions for the central city public realm which satisfy the cultural and practical needs of the Māori community

Accordingly, the Streets and Spaces Design Guide includes guidance on meaningful and practical ways of celebrating and integrating Ngāi Tahu values in the central city public realm. These values include:

- **Rangatiratanga:** community leadership; authority to make decisions
- **Manaakitanga:** looking after others, especially guests (manuhiri)
- **Kaitiakitanga:** sustainable management of the natural environment
- **Mātauranga:** knowledge and understanding of cultural traditions and values
- **Whanaungatanga:** community identity, pride and participation
- **Wairuatanga:** spiritual wellbeing

Specific ways of how these values can be expressed in the central city public realm are:

- **Using te reo maori** (the Māori language). Ensuring written, oral and other forms of communication in the public realm are bi-lingual. For example in wayfinding signage, place naming and site interpretation boards.
- **Protecting and enhancing mahinga kai** (foods and other natural resources, the habitats where they are sourced from, as well as the practices and philosophies that have developed over generations to ensure their sustainable management). For example food forests, rain gardens and indigenous planting strategies
- **Integrating Ngāi Tahu values, cultural expressions and narratives in the design of public realm projects.** For example respectfully acknowledging sites and landscapes of cultural significance, incorporating authentic Ngāi Tahu artworks and involving Ngāi Tahu artists and designers

These values and concepts have been threaded throughout this document.







“The value of a place’s distinctive features is sure to increase over time as globalisation renders our cities more generic”

03

DESIGN CRITERIA
Paearu Hoahoa

Places for People

Wāhi Tāngata

The design criteria outlined in the following pages should be used to inform the design of streets and gathering places in the central city.

The criteria identify key design considerations that will assist in making the vision for the public realm network of central Christchurch a reality. These design considerations should form an integral part of the design process.

The rationale behind each of the criteria is to create places that the people of Christchurch will cherish because people are at the centre of how these places are experienced.





Comfort

Wāhi Haumaru



Design public places and streets with high standards of pedestrian comfort and convenience.

- Design for comfort of people experiencing different weather conditions by including access to sun (Tama-nui-te-rā) and shade, shelter from wind (te hā o Tāwhiri) and rain, and noise reduction. Consider orientation of spaces where possible, and the appropriate provision of trees and awnings for shade.
- Provide ample opportunities for formal and informal seating so people are invited to pause and rest, or stop and relax.
- Provide lighting to create safe and attractive spaces for people at night.
- Encourage diverse, interesting, engaging and high-quality interfaces at the ground and upper levels of buildings that sit directly adjacent to pedestrian spaces.
- Apply barrier-free and universal design principles in the design of streets and gathering places. These principles promote spaces that are usable to the greatest extent possible by everyone, regardless of their age, ability, or status in life.
- Provide sufficient and comfortable facilities and amenities for commuters, shoppers and visitors, such as bike racks, water fountains, public toilets, wayfinding and a variety of seating options.



Legible Tuhinga Aroā



Contribute to a city centre that is easy to understand and to navigate for locals and visitors alike, including those with mobility needs.

- Support the appropriate travel modes and their appropriate hierarchy as identified in Accessible City.
- Design direct and predictable routes for each of the key modes of travel.
- Use a consistent and complementary palette of design details, materials and street furniture in streets and public places, which assist to easily navigate the city for various users and modes of transport.
- Create a sense of arrival at gateways and thresholds into key public spaces. Integrate Ngā Ngutu (cultural markers) at entry points and other locations associated with the story of Mana Whenua.
- Provide effective links between the central city and the wider region for various travel modes.
- Integrate into the design of the public realm visual cues that signal a transition into slower-speed environments.
- Provide clear and consistent wayfinding for all travel modes throughout the city, including direction to key destinations, north orientation and travel distances.
- Integrate Maori place names and tēreo in way-finding panels, street and place name signs.
- Involve Ngāi Tahu designers and artists in the production of interpretation panels which provide educational information, for example Ngāi Tahu history and mythology.
- Introduce memorable urban moments and points of recognition to assist in natural orientation and wayfinding.
- Ngāmaunga kōrero. Frame and protect key views to the mountains to enshrine their majestic stories and assist with way finding
- Provide spaces and features which educate and inform people of the traditional values of a place.
- Ensure boundaries between private and public spaces are well defined.
- Design streets and spaces to avoid potential conflict between different user groups.

Green *Whenua Haumako*



MANA ATUA, MANA TANGATA (design with and within the environment) – Introduce more trees, landscaping and gardens into the city centre. Improve water management and air quality to foster a healthier natural and urban environment.

- Introduce street tree planting and landscaping in all new streetscape projects.
- Use species selection to reinforce and contribute to the character and role of streets and gathering places.
- Use trees and plants that are suitable for Christchurch's climate and will grow in the urban environment while minimising ongoing maintenance and operating costs.
- Support biodiversity clusters and corridors and promote the ecological restoration of the native flora and fauna in the Ōtautahi/Christchurch area.
- Provide safe, attractive and efficient streets that encourage people to choose to use the healthier and cleaner travel modes such as walking, cycling and public transport.
- Use environmentally responsive materials and promote energy efficiency in the use and management of the public realm.
- Promote the integration of surface stormwater treatment into the design of the public realm. Reduce large impermeable surfaces and promote the use of semi permeable surface treatments.
- Design streets and gathering places to provide a sense of connection with nature.
- Promote, protect and restore places for mahinga kai, for example orchards and native plantings.
- Protect the night sky and reduce lighting pollution. Avoid unnecessary light at night. Protect and promote the cultural, educational, scientific and recreational value of Christchurch nightscape.



Sense of place

He Tūrangawaewae



Design the public realm to reflect the context and identity of greater Christchurch – its character, culture, history, values and aspirations.

- Create distinct and unique places that are memorable and enticing for a wide range of users.
- Draw on the positive and intrinsic elements of each place such as heritage, history, landscape, activity, land uses, built form and views.
- Reinforce and celebrate the simplicity of the central city grid.
- Ngā Tūpuna: acknowledge and integrate wāhi tapu and sites of cultural significance through:
 - spatial connections in the form of pedestrian ways and view shafts
 - dual names and signage
 - art, sculpture, and other cultural expressions such as pou whenua and whakairo (carvings) and raranga (paving treatments)
- Draw on Ngāi Tahu historical narratives for the design of the public realm. Detailed Ngāi Tahu historical narratives can be obtained from Council or developed through consultation with mandated Ngāi Tūāhuriri representatives.
- Use a consistent and complementary set of materials, furniture and street elements across the central city.
- Select street trees and planting to support and strengthen the desired character for spaces.
- Use lighting to contribute to the character of the public realm network.
- Promote well-integrated and place-responsive public art.
- Promote temporary activation of space.
- Provide opportunities for people to engage with natural processes and for children to learn about nature through observation. For example, safe areas to investigate in stream habitats, boardwalks, bird watch areas, contemplative seating, nature play spaces, community orchards, areas to harvest and work harakeke and other fibre plants.
- Provide for Ngāi Tahu customary use of plants for rongoā (medicinal purposes), weaving and other crafts.
- Ensure all ground-level interfaces enhance the character and experience of public spaces.
- Permit non-standard treatments where appropriate to reinforce identity, distinctiveness and character.

Creative and inviting *He Wāhi Pōwhiri Tāngata*



Foster a sense of interest and surprise in the everyday experience of the central city.

- Create meaningful and inclusive places that provide safe and easy access for all user groups including; children, youth, elderly and people with disabilities or limited mobility.
- Design streets and gathering places for a variety of functions including commuting, relaxation, play, social interaction, whānau gathering, recreation, business, art and architecture.
- Integrate spaces and facilities for Ngāi Tahu whanui cultural activities and ceremonies such as pōwhiri (welcoming).
- Encourage creative designs that engage and stimulate people of all ages.
- Provide opportunities for the community to harvest local kai (produce) from orchards, community gardens and access to waterways and other mahinga kai (food and resource gathering) for customary harvesting.
- Design buildings to support interesting experiences for people throughout the city.
- Use planting and hard landscaping to introduce variety, colour and texture to the public realm network.
- Design the street network to support a transport system that is efficient and attractive, provides high amenity and integrates with its surrounds.
- Support an increased use of cycling by providing bicycle-friendly facilities and amenities along key designated routes.
- Design the public realm network to provide a choice of routes and travel modes throughout the city.
- Provide an appropriate quantity and location of on-street car parking.
- Foster a network of slow-speed streets towards the heart of the city centre that support a wide range of activities.
- Provide active play and recreation opportunities for childhood development and senior enjoyment.
- Promote environmental custodianship through communal activities and environments such as community orchards and gardens and ecological enhancement projects.
- Promote well-integrated and cultural and place-responsive public art including collaboration with and engagement of Ngāi Tahu artists
- Promote a child-friendly city. Improve the accessibility, quality and quantity of structured and unstructured play spaces and play opportunities in the central city
- Support the Transitional City Programme.



Walkable

He Wāhi Hikoi



Create a consistently high-quality and well-connected pedestrian and cycling network that attracts people of all ages to spend time in the central city streets and gathering places.

- Promote a walking network within the Core that provides a variety of walking experiences.
- Provide and maintain attractive, well-defined and direct pedestrian routes through gathering places.
- Ensure lowest levels of buildings are designed to support a human-scaled and walkable city. Consider appropriate levels of transparency, frequent and active entrances, engaging ground floor uses, awnings and increased architectural articulation to add interest and variation along the edge of footpaths and gathering places.
- Provide continuous variety along the length of building walls that sit on the edge of public places. Breaking down the length of building frontages into smaller segments by considering vertical articulations, variations in materials, patterns or window alignments will make the walking experience more interesting, and the distances seem shorter.
- Provide clear paths of travel for visually impaired pedestrians, in particular in front of building frontages.
- When buildings are set back from public places, carefully consider landscaping and buffers to soften and improve the pedestrian experience.
- Facilitate walking for seniors and those with different abilities by providing frequent opportunities for seating and moments of pause and rest.
- Prioritise pedestrians in the inner zone, supported by low speeds, attractive footpaths, accessible public spaces and convenient, frequent street crossings.
- Design footpaths and intersections to provide sufficient clear path widths, minimal crossing distances, ease of access and safety.
- Minimise vehicular crossings or driveways along key pedestrian and cycling routes.
- Manage vehicle access into key gathering places and promote pedestrian priority.
- Use traffic management methods to minimise waiting times at street crossings on key walking and cycle routes.
- Define a choice of protected pedestrian routes for inclement weather conditions.
- Reduce clutter and co-locate street elements where possible (signage, poles, etc).

Resilient and flexible *He Manawa Titi*



Design the public realm network as a system that can adapt to change and evolve with the needs and functions of the city.

- Design streets and spaces that can integrate and adapt to alternative transport options and public space needs in the future.
- Design for cost-effectiveness and provide the greatest possible value to the public.
- Consider full lifecycle costs and benefits. Balance the initial capital with the long-term safety, economic, environmental and other benefits of a high-quality public realm.
- Design streets and gathering places to minimise impacts on underground services and utilities.
- Design spaces for flexibility and multi-purpose use for people on their own, in pairs or in groups of varying sizes.
- Ensure accessibility for oversized and emergency service vehicles, particularly where spaces are used for major public events and performances.
- Adopt a restrained palette of materials that are robust, age well, are easily maintained and are cost-efficient to source and manage.
- Design streets and gathering places that respond to the needs of an ageing population.
- Design streets and spaces that function predictably and consistently in everyday use, and that adapt to large planned activities or unexpected events.
- Design streets and traffic signals to allow for different travel modes at different times of day.
- Design the street network to support consistent and predictable travel times to key destinations, especially for public transport.

Safe *Haumaru*



Design the public realm to positively contribute and respond to the actual and perceived sense of safety in the central city.

- Design the public realm network as a safe system for all users, particularly more vulnerable groups (children, the elderly, those with disabilities) as well as the more vulnerable transport modes (walking, bicycling) – by day and by night.
- Apply Crime Prevention through Environmental Design (CPTED) principles. Ensure spaces are overlooked, well lit and maintained.
- Encourage active use of spaces by a range of different groups throughout the day.
- Define the street cross-section to induce the desired slower vehicular speeds.

Building edges

The ground level of buildings is predominantly what pedestrians perceive, interact with and remember when walking in the city¹.

This is because:

- the ground level façade is naturally perceived by the human field of vision when walking on the street
- people walk at an average pace of 5 kilometres per hour. At this pace the human eye has the capacity to appreciate detail
- people prefer to stay at the edges of space, where their presence is more discrete and they command a good view of the space
- people prefer to stand or sit at a fixed point, rather than stand without any support.

The ground floor is where 'buildings and city meet'

Jan Gehl



¹ Close encounters with buildings, Jan Gehl*, Lotte Johansen Kaefer and Solvejg Reigstad, URBAN DESIGN International (2006) 11, 29–47.



Building edges

Because the ground level of a building has the greatest potential to support activity and enliven the street life, special care should be taken in its design. In particular, the design should take account of the following aspects.

Vertical rhythm

Vertical rhythm refers to narrow-fronted buildings or vertical elements in the façades such as frequent doors and windows. The vertical emphasis gives rhythm to the streets; it makes walking more appealing by changing the sense of distance as one walks from one column, door or window to the next. To create this effect, vertical elements should be placed every 3 to 5 metres along the façade.

Depth

'Thick' façades with 'in-and-outs' such as canopies, balconies, bay windows, plinths and defined thresholds become attractive places for people to be and prolong activity onto the street. These elements also assist in providing 'vertical rhythm' to the façade.

Transparency

Allowing visual contact between the interior and the exterior of a building extends the experience of the public space and of the buildings themselves.

Glass used for ground floor façades should be clear rather than mirrored or frosted glass.

While transparency is encouraged, it is also important to acknowledge and make provision in the design of façades for areas that require privacy or uses that will result in unsightly views from the street. In all instances, however, completely blank façades must be avoided.

Texture

The texture of a façade refers to the sensorial experience it provides to the pedestrian through the use of architectural articulation, materials and detail. A façade with quality materials and creative details engages the senses, making the walking experience appealing and stimulating.



Vertical rhythm



Depth



Activity and diversity

It is ultimately people who bring vibrancy and life to a city. Active uses, particularly along major pedestrian routes, will foster a sense of urbanity and increase patronage and the perception of safety. An active use provides physical and/or visual opportunities for interaction between the inside and the outside of the building during most parts of the day. Frequent doors and windows provide points of exchange between the outside and the inside, encouraging activity and surveillance of the street.



Transparency

Flexibility

Active uses are wide and varied, including retail, entertainment, residential, services and businesses. Some of these uses, such as retail, require minimum levels of patronage to be viable. In practice, this means that some uses in certain locations will become viable only as the project matures and visitation increases. For this reason the ground floor should be designed so that different uses can be accommodated equally well throughout the life of the building. Design considerations should include:

- floor to ceiling heights above 3 metres at the ground level
- flexible and adaptable floor plates that provide options for short- and long-term occupation
- construction systems that allow changes to the façade at a later date
- avoiding major level changes between the street and the ground level.



Texture



Activity



*“Great cities give you
a sense of movement,
vitality and enterprise.
They are alert and alive
to opportunity”*

Charles Landry

04

GATHERING PLACES
Wāhi Huihuinga
Tāngata

Overview

Gathering places in the central city will be destinations catering mostly for pedestrians. They are places where both small and large groups can meet informally or for planned events and other activities.

They include parks, plazas, squares, the riverfront, markets, civic and open spaces and publicly accessible lanes, courtyards and gardens.

Gathering places play a vital role in supporting the social, cultural and economic life of the central city. They contribute to the vibrancy of the city by providing amenity for workers, residents, visitors and tourists.

Gathering places not only enliven the city but can also raise the city's profile nationally and internationally. Interesting gathering places that have a strong sense of place will help to attract investment, development, businesses and residents to re-establish in the central city.

The plan in Figure 18 illustrates existing and proposed gathering places in the central city. They include:

- established places that will be renewed as part of the rebuild process, such as the Ōtākaro/Avon River and Cathedral Square
- proposed new places such as the Central Park in the East Frame residential precinct and the new public realm network in the South Frame
- existing places such as Hagley Park and Cranmer Square
- privately owned but publicly accessible places, such as the courtyards in the Arts Centre.

Some of these places are redevelopment projects which are at different stages in the planning, design or funding approval process, and may be subject to change of location or design. However, the purpose of mapping them all on one plan is to illustrate how they may work together as a network.

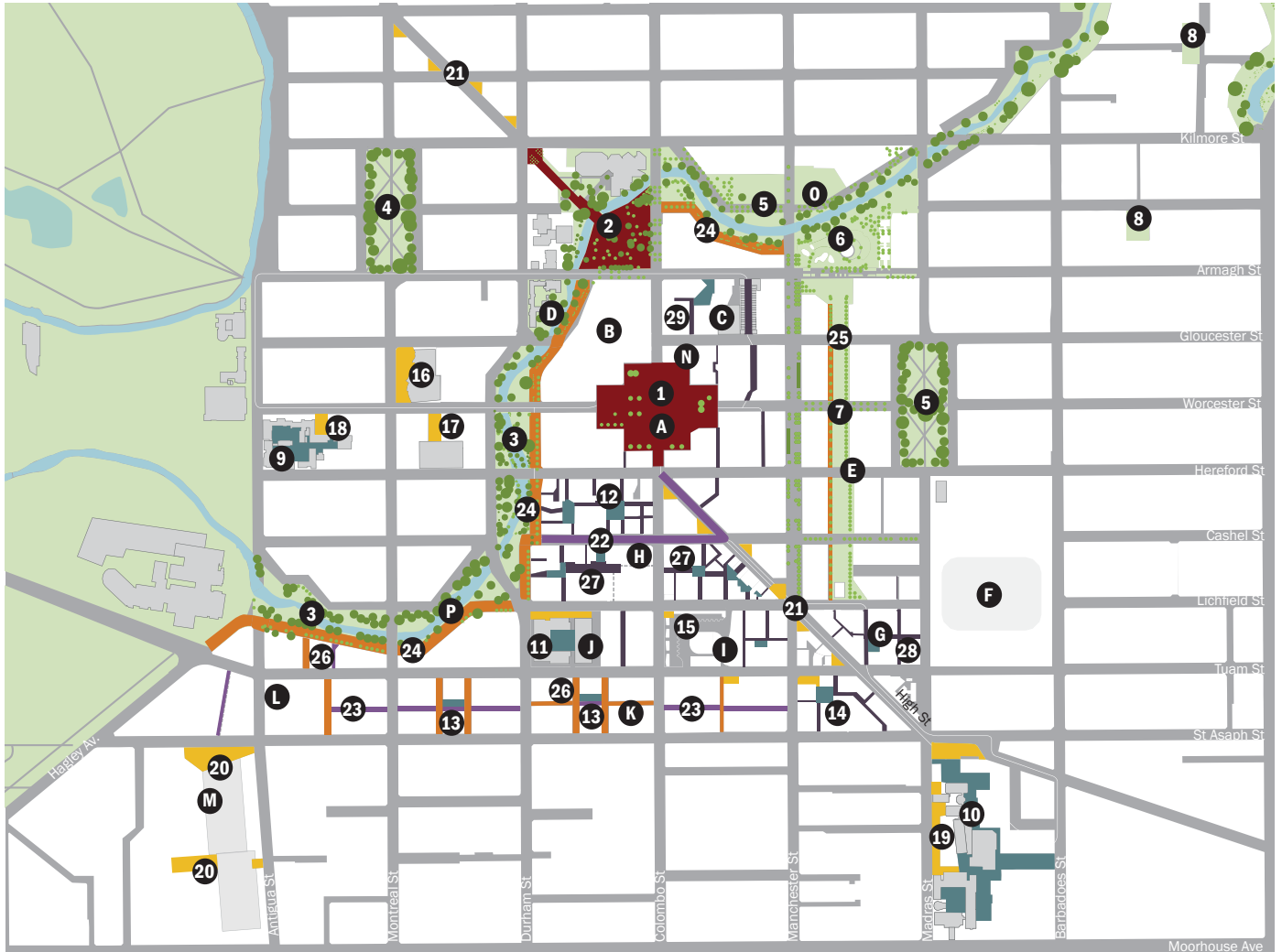
This chapter provides an overview of the general context and role of central city gathering places that share common purposes, such as parks or lanes.

The main objectives are to describe how each place relates to the wider context and to promote a diverse series of gathering places that:

- enable a connected city, where synergies between places are maximised
- attract a broad population profile to the central city by providing a wide and well-distributed selection of activities
- create a city that is interesting to explore through their varying character and scale.

Design guidance applicable to individual gathering places associated with anchor projects is provided in Chapter 6.





Legend

- | | | | |
|---|--|---|---|
| <p>SQUARES</p> <ul style="list-style-type: none"> 1. Cathedral Square + 2. Victoria Square + <p>PARKS AND OTHER GREEN OPEN SPACES</p> <ul style="list-style-type: none"> 3. Ōtākaro/Avon River * 4. Cranmer Square + 5. Latimer Square + 6. Margaret Mahy Family Playground . 7. East Frame Central Park . 8. Neighbourhood Parks + <p>COURTYARDS</p> <ul style="list-style-type: none"> 9. Arts Centre + 10. CPIT Campus + 11. Justice and Emergency Services Precinct . | <ul style="list-style-type: none"> 12. Retail Precinct . 13. South Frame . 14. Innovation Precinct. <p>PLAZAS</p> <ul style="list-style-type: none"> 15. Bus Interchange . 16. Christchurch Art Gallery + 17. Christchurch Council Offices + 18. Arts Centre+ 19. CPIT Campus + 20. Metro Sports Facility . 21. Victoria and High Street Triangles + <p>PEDESTRIAN PRIORITY STREETS</p> <ul style="list-style-type: none"> 22. City Mall+ 23. The Greenway . | <p>SHARED STREETS</p> <ul style="list-style-type: none"> 24. Ōtākaro/Avon River Promenade . 25. East Frame Links . 26. South Frame Links . <p>LANES</p> <ul style="list-style-type: none"> 27. Retail Precinct . 28. South Frame Innovation Precinct . 29. Performing Arts Precinct . <p>ANCHOR PROJECTS .</p> <ul style="list-style-type: none"> A. The Square B. Convention Centre Precinct C. Performing Arts Precinct D. Te Papa Ōtākaro/Avon River Precinct E. East Frame Residential Precinct | <ul style="list-style-type: none"> F. Stadium Precinct G. Innovation Precinct H. Retail Precinct I. Bus Interchange J. Justice and Emergency Services Precinct K. South Frame L. Health Precinct M. Metro Sports Facility N. Central Library O. North Frame P. Earthquake Memorial <p>Note:
 + Existing
 * Existing design to change
 . Proposed</p> |
|---|--|---|---|

Figure 18 Central Christchurch existing and proposed gathering places.

The Squares

Cathedral Square and Victoria Square are central Christchurch’s most prominent civic places, where people come to meet and celebrate significant events.

Both squares were key features of the original town plan for Christchurch created by Edward Jollie in 1849–50.

With their central location, historic character and civic role, the squares contribute substantially to everyday life in the central city and are important tourist destinations.

These two squares will provide key public interfaces with the Convention Centre and Te Papa Ōtākaro/Avon River precincts, and the Central Library.

Cathedral Square

Located at the intersection of the city’s two main axial streets, Worcester and Colombo streets, Cathedral Square is at the geographic and civic heart of Christchurch.

The Recovery Plan identifies Cathedral Square as a key anchor project. The vision is to re-establish the square as Christchurch’s main civic gathering place. It will be more vibrant, more comfortable, more accessible, safer and greener. The design process is yet to commence; however, key objectives for its design are provided on Chapter 6.

Victoria Square

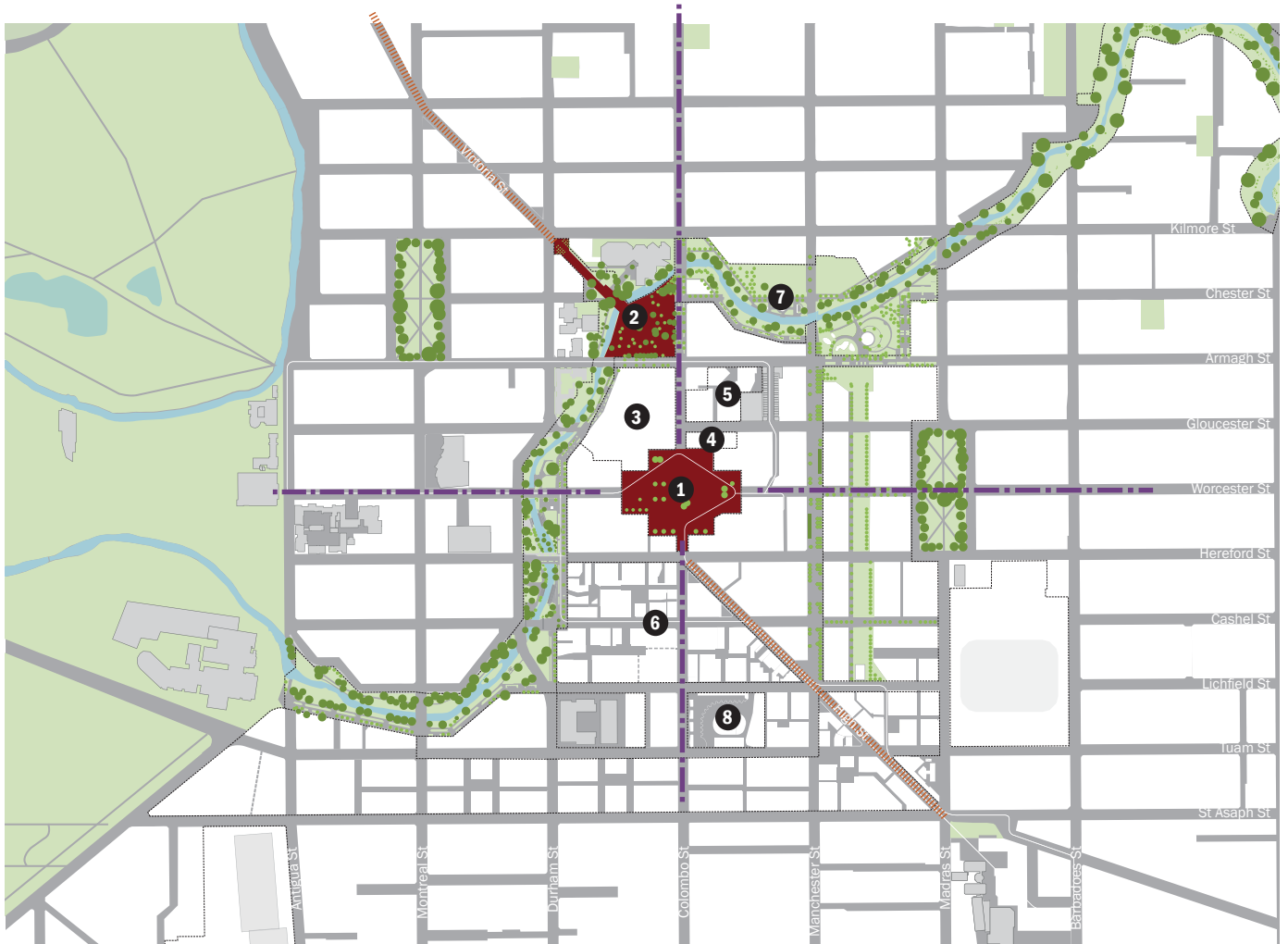
Victoria Square, first known as Market Square or Market Place, was the centre of town life until the 1870s. It sits in a prominent location along the Ōtākaro/Avon River at the confluence of a number of existing and proposed major movement routes. Victoria Square has a strong diagonal north–west axis which provides a bookend to Victoria Street.

Victoria Square’s setting, its historic market activities and existing monuments, provide strong associations with the heritage of Te Rūnanga o Ngāi Tahu and European culture.

As a predominantly green space, Victoria Square offers a counterpoint to the largely hard surfaces of Cathedral Square. Victoria Square will continue to be a natural gathering point in the central city – a place for celebration, relaxation, markets and civic events.

Victoria Square is being redesigned as part of the anchor project, Te Papa Ōtākaro/Avon River Precinct.





Legend

- | | | |
|---|--|-----------------------------|
| SQUARES | RELATED ANCHOR PROJECTS | |
| 1. Cathedral Square * | 3. Convention Centre Precinct | Note: |
| 2. Victoria Square * | 4. Central Library | + Existing |
| AXIS STREETS | 5. Performing Arts Precinct | * Existing design to change |
| Colombo* and Worcester+ Streets | 6. Retail Precinct | · Proposed |
| GATEWAY STREETS | 7. Te Papa Ōtākaro/Avon River Precinct | |
| Victoria and High Streets + | 8. Bus Interchange | |

Figure 19 Central Christchurch existing squares.

Parks

The central city parks provide space for relaxation, physical activity, recreation and cultural activities of varied scales. They also make a key contribution to the city’s visual amenity, air and water quality, and diversity of flora and fauna.

Central Christchurch parks offer a foretaste of the city’s beautiful natural surroundings. Their landscapes and environmental features are essential components of the city’s distinctive sense of place and its ‘Garden City’ heritage.

A number of new open spaces and connections in the central city, in particular to the east and south, will help to consolidate a green corridor around the city Core and link the city’s main parks.

Hagley Park

Hagley Park is the largest park in the central city, one of the city’s main landmarks and a popular destination. With its strong pattern of deciduous trees and broad open spaces, the park supports major sporting and cultural events. It includes the Christchurch Botanic Gardens and offers a diverse range of passive and active recreational opportunities.

In its early days Hagley Park was used for horse racing; South Hagley Park was used for the Great Industrial Exhibition of 1882, the New Zealand International Exhibition in 1906–1907 and the

Australasian Tennis Championships in 1906. Today the park supports cricket, model boat sailing, golf, tennis, netball, croquet, hockey, rugby and soccer, as well as open-air concerts, festivals and the like.

Ōtākaro/Avon River

The main natural feature traversing central Christchurch, the Ōtākaro/Avon River, is a key component of the city’s cultural, physical and aesthetic identity.

The Ōtākaro/Avon River holds great significance for Ngāi Tūāhuriri. The 14-kilometre-long river served as a transport route and source of mahinga kai (food and resource gathering), and was the place by which they lived and traded.

The visual contrast between the curving river and the European linear street grid, introduced by Edward Jollie’s plan of central Christchurch, is a key characteristic of the city’s urban form.

Te Papa Ōtākaro/Avon River Precinct, a 3.2-kilometre-long anchor project, aims to help re-establish a healthy river and better integrate the river with the surrounding urban fabric. The Precinct

has key interfaces with other anchor projects including the Convention Centre Precinct, Retail Precinct and East Frame. Further information on this project is provided on Chapter 6.

East Frame residential precinct - Central Park

The Central Park in the East Frame anchor project is the open space spine for the new inner-city residential precinct.

At the city scale, the park will be an important extension of the city’s green, open spaces to the east and a key element of the pedestrian and cycling networks. When completed, the Central Park will be the third-largest park in the central city.

At the local scale, the park is designed to support and attract inner city living and provide a focal point for the new community.

The vision for the park is to create a contemporary and flexible linear open space that builds on Christchurch’s urban form and Ngāi Tūāhuriri values. Further detail on the park is provided on Chapter 6.





Legend

PARKS AND OTHER GREEN OPEN SPACES

- 1. Hagley Park +
- 2. Te Papa Ōtākaro/Avon River Precinct*
- 3. East Frame Central Park ·
- 4. Cranmer Square +
- 5. Latimer Square +
- 6. Neighbourhood Parks +

KEY CONNECTIONS

- A. East Frame north- south link ·
- B. South Frame Greenway ·
- C. Chester Street +
- D. Worcester Street +
- E. Cashel Street +

RELATED ANCHOR PROJECTS ·

- F. Convention Centre Precinct
- G. East Frame Residential Precinct
- H. South Frame
- I. Retail Precinct
- J. Justice and Emergency Services Precinct
- K. Stadium Precinct
- L. Earthquake Memorial

KEY RELATED DESTINATIONS

- M. Cathedral Square *
- N. Christchurch Council Offices +
- O. Christchurch Art Gallery +
- P. Canterbury Museum +
- Q. Arts Centre +
- R. Metro Sports Facility ·

Note:

+ Existing

* Existing design to change

· Proposed

Figure 20 Central Christchurch existing and proposed parks.

Parks

Latimer and Cranmer squares

Latimer and Cranmer squares form part of the original town plan for Christchurch. The size of each is the same as a typical city block but their north-south orientation provides a counterpoint to the other east-west city blocks. Their strong heritage character is reinforced by lines of mature trees and formal lawns.

Latimer and Cranmer squares make a key contribution to the urban amenity and character of the surrounding neighbourhoods. They have great potential to provide a more diverse range of activities and events that support the established and emerging communities in their local areas and the city centre more generally.

Cranmer Square is at the western edge of the Core, mid-way between Hagley Park, Victoria Square and the Ōtākaro/Avon River. Chester, Armagh and Kilmore streets provide convenient pedestrian, cycle, tram and vehicular connections

between these notable green, open spaces. In recent times, residential land uses – including a number of hotels and other accommodation – have become more prominent around Cranmer Square. These generally maintain the traditional urban pattern of stand-alone buildings with relatively generous front and/or back yards.

Latimer Square provides an entry point from the east to the city Core along its main east-west axis, Worcester Street. The urban fabric around Latimer Square will undergo significant change with the introduction of more contemporary and compact forms of residential uses, in particular along the East Frame.

The Transitional Cathedral to the south of Latimer Square attracts numerous visitors and tourists to the area.

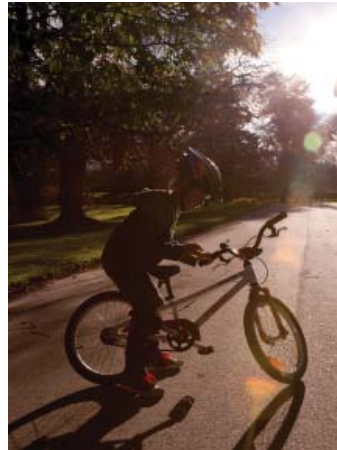
Neighbourhood parks

Neighbourhood parks are typically small green spaces, with trees and soft landscaping, tucked into and scattered throughout the urban fabric. In the central city they are located predominantly in the northeast among established residential areas.

Neighbourhood parks generally serve the needs of the immediate population. They can play an important role in fostering a sense of ownership and community. These small spaces are used for small local events and play areas for children, or simply as places for informal socialising and relaxation. Neighbourhood parks also provide opportunities to increase the amount of permeable surfaces through the city and provide habitat for plant and birdlife.

The role of neighbourhood parks as outdoor communal spaces will become increasingly important as central residential areas become more compact and dense. New neighbourhood parks should be sited in visible areas of high pedestrian footfall, so that they are safe and convenient to get to.





Courtyards

Through the rebuild process, courtyard spaces are becoming a more prominent feature of the central city’s urban fabric, particularly within and around anchor projects. New courtyard spaces draw on successful local precedents such as the quadrangles in the Arts Centre and SOL (South-of-Lichfield) courtyard.

Courtyards are small open spaces typically located towards the interior of blocks and enclosed by buildings. Their small scale and inward location create sheltered and comfortable spaces which provide places of respite in the midst of the activity of the city. Their discrete locations make them places to be discovered; access is often via laneways or through existing buildings.

In some instances, courtyards are privately managed and maintained but provide public access for most of the day.

Courtyard spaces offer a wide range of design possibilities. The following are some of the key matters to consider when designing courtyards.

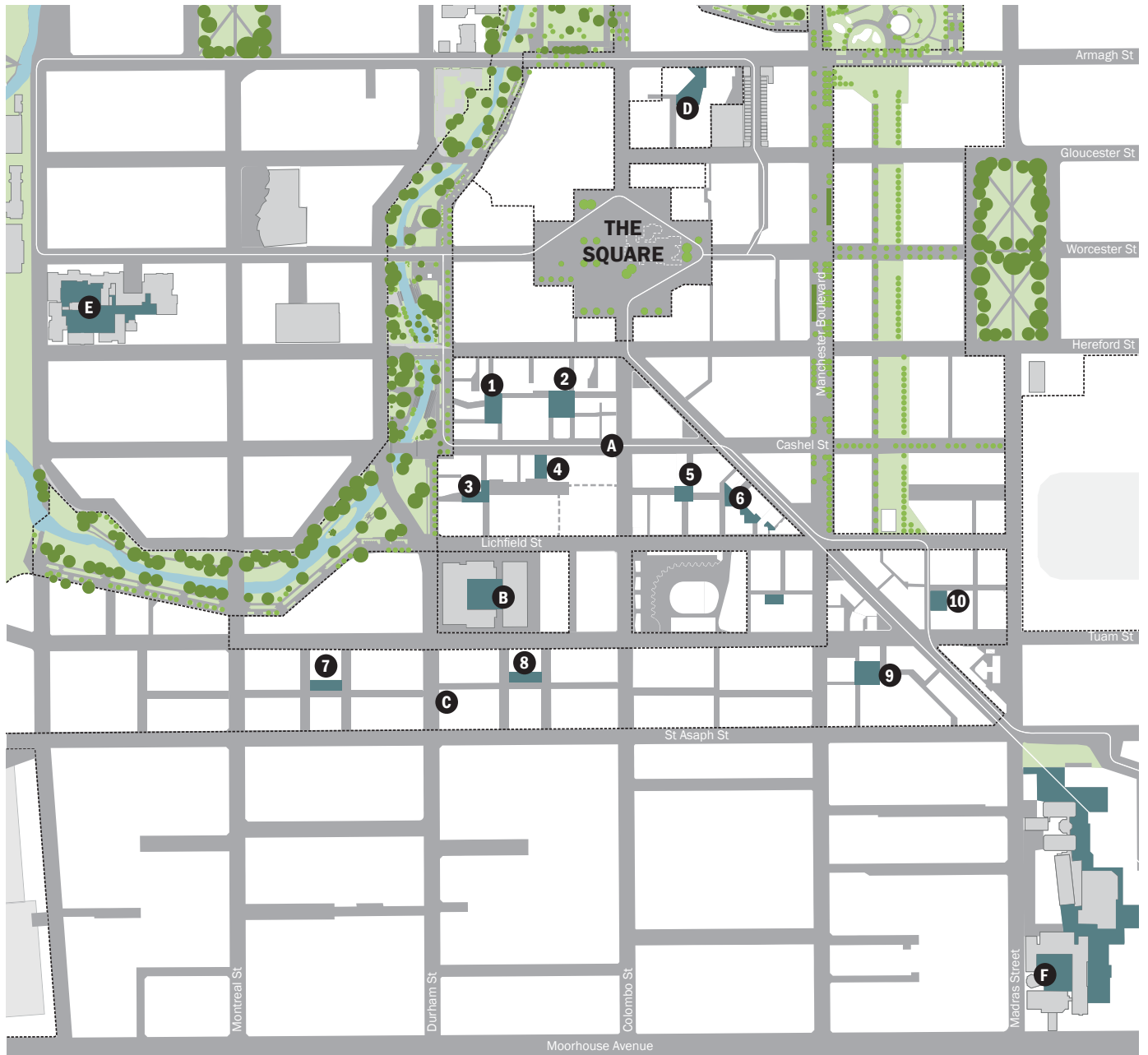
- **Size of space.** Good courtyards are deceptively small.
- **Connections.** Courtyards work best with three or more connections from different origins, preferably activating the corners and edges of the space.
- **Sense of enclosure.** The height and bulk of surrounding buildings, on at least three sides, should be of a scale proportional to the courtyard space.
- **Solar access.** Determined by surrounding buildings, solar access should be allowed at least at key times of the day, in particular to north- and west-facing frontages.
- **Activity and surveillance.** Locating active uses overlooking or fronting the space will ensure courtyards are welcoming and safe places to be.

Creating courtyards of varied and distinct character will contribute to a central city that is interesting to explore. The new anchor projects and uses in the central city should be reflected in the design and character of courtyard spaces.

- The courtyards in the Retail Precinct will support the shopping and hospitality offer of the Precinct by creating contemporary and elegant spaces.
- The courtyards in the South Frame can draw on the industrial tradition of the area and the new uses proposed for it. They offer opportunities for the creative expression of local artists and use of new technologies.
- The courtyards around the Performing Arts Precinct can extend the cultural activities and character of the Precinct into the public realm. Drama, sounds, music and performance are among the themes that can inform their design.
- The courtyard in the Justice and Emergency Services Precinct will provide a civic space for visitors and workers in the Precinct.
- The existing courtyards at the Arts Centre have a well-established role and character that support the architecture and activities in the area.
- The courtyard spaces in the CPIT campus bookend the journey from Cathedral Square along High Street. They can become an exemplar of a ‘city campus’ that is well integrated into the city’s urban fabric. These courtyard spaces can extend the learning and collegiate environment of the lecture and tutorial facilities into the public realm.

Some general guidance on designing courtyards in the central city is included in Christchurch City Council’s Central City Lanes Report – Lanes Design Guide. The guide can be accessed at: <http://www.ccc.govt.nz/cityleisure/projectstoimprovechristchurch/urbandesign/urbandesignguides.aspx>





Legend

COURTYARDS

A. Retail Precinct

- 1. The Terrace ·
- 2. Cashel Square ·
- 3. South West End ·
- 4. South Central ·
- 5. South East End - courtyard 1 ·
- 6. South East End - courtyard 2 ·

B. Justice and Emergency Services Precinct courtyard +

C. South Frame

- 7. South courtyard ·
- 8. Mollet Street courtyard ·
- 9. Innovation courtyard ·
- 10. Poplar-Ash courtyard ·

D. Performing Arts Precinct

courtyard (indicative) ·

E. Arts Centre courtyards +

F. Christchurch Polytechnic Institute of Technology (CPIT) courtyards +

Note:

- + Existing/ under construction
- * Existing design to change
- Proposed

Figure 21 Central Christchurch existing and proposed courtyards.

Plazas

Plaza spaces in the central city are generally associated with significant public or civic buildings. Plazas provide a transition space between the street and the building entrance, reinforcing the civic or public nature of the building.

Plazas can add a sense of procession and ceremony to entering an important building. As easily recognisable places, they are popular meeting points. On special occasions plazas can host events that range from civic functions to political rallies and demonstrations. Plazas often display major public artworks.

Existing and proposed plazas in the central city include the following.

- The existing plaza north of Christchurch City Council Civic Office and the proposed plaza for the Justice and Emergency Services Precinct both serve as marae ātea where formal welcome ceremonies take place.
 - The plaza in front of the Christchurch Art Gallery Te Puna O Waiwhetu provides opportunities for outdoor exhibition space and events.
 - The proposed plaza at the corner of Colombo and Lichfield streets will provide the main pedestrian access to the new Bus Interchange.
- There are potential opportunities for new plazas associated with the Metro Sports Facility.

There are a series of small triangular spaces formed where the diagonals of High Street and Victoria Street intersect with the city grid. Although not associated with civic buildings, they are distinctively Christchurch public spaces, providing gardens and small meeting points along these main streets. The triangular plazas complement the retail and hospitality uses of the street and provide a vantage point for appreciation of the acute forms of buildings on adjacent corners.

The triangles have heritage significance and are protected under the Christchurch City (Reserves) Empowering Act 1971. Several of the triangles showcase public artworks such as Nucleus (2006, Phil Price) and Flourpower (2008, Regan Gentry) or items of historical significance such as the Jubilee Clock at the intersection of Victoria and Montreal streets.





Legend

PLAZAS

Proposed

- 1. Bus Interchange entry plaza
- 2. Justice and Emergency Services Precinct plaza
- 3. Metro Sport Facility plazas (indicative)
- 4. South Frame Innovation plaza
- 5. South Frame Scholars Park

Existing

- 6. Christchurch Council Offices plaza
- 7. Art Gallery plaza
- 8. Arts Centre plaza
- 9. Christchurch Polytechnic Institute Technology (CPIT) plazas
- 10. High Street Triangular plazas
- 11. Victoria Street Triangular plazas

Related Anchor Projects

- A. Te Papa Ōtākaro Avon River Precinct
- B. Justice and Emergency Services Precinct
- C. Bus Interchange
- D. South Frame
- E. Metro Sports Facility

Figure 22 Central Christchurch existing and proposed plazas.

Pedestrian-focused streets

One of the changes that the rebuild process will bring to the central city experience is the more pedestrian-focused streets it will create.

These streets have a prominent role in creating a more walkable and pedestrian-friendly city Core. This was a feature that Christchurch people asked for through the ‘Share an Idea’ consultation in 2011 and a key objective of the Recovery Plan.

Pedestrian-focused streets integrate most travel modes, yet they are designed to welcome people on foot. These streets support stationary activities

and, on occasion, small events such as temporary markets and displays. For this reason, pedestrian-focused streets are considered part of the gathering places in the central city.

Pedestrian-focused streets in central Christchurch are associated with precincts and other areas where pedestrian activity is central to their vibrancy, character and activity. Table 1

outlines the different types of pedestrian-focused streets in the central city and the key features of each of them.

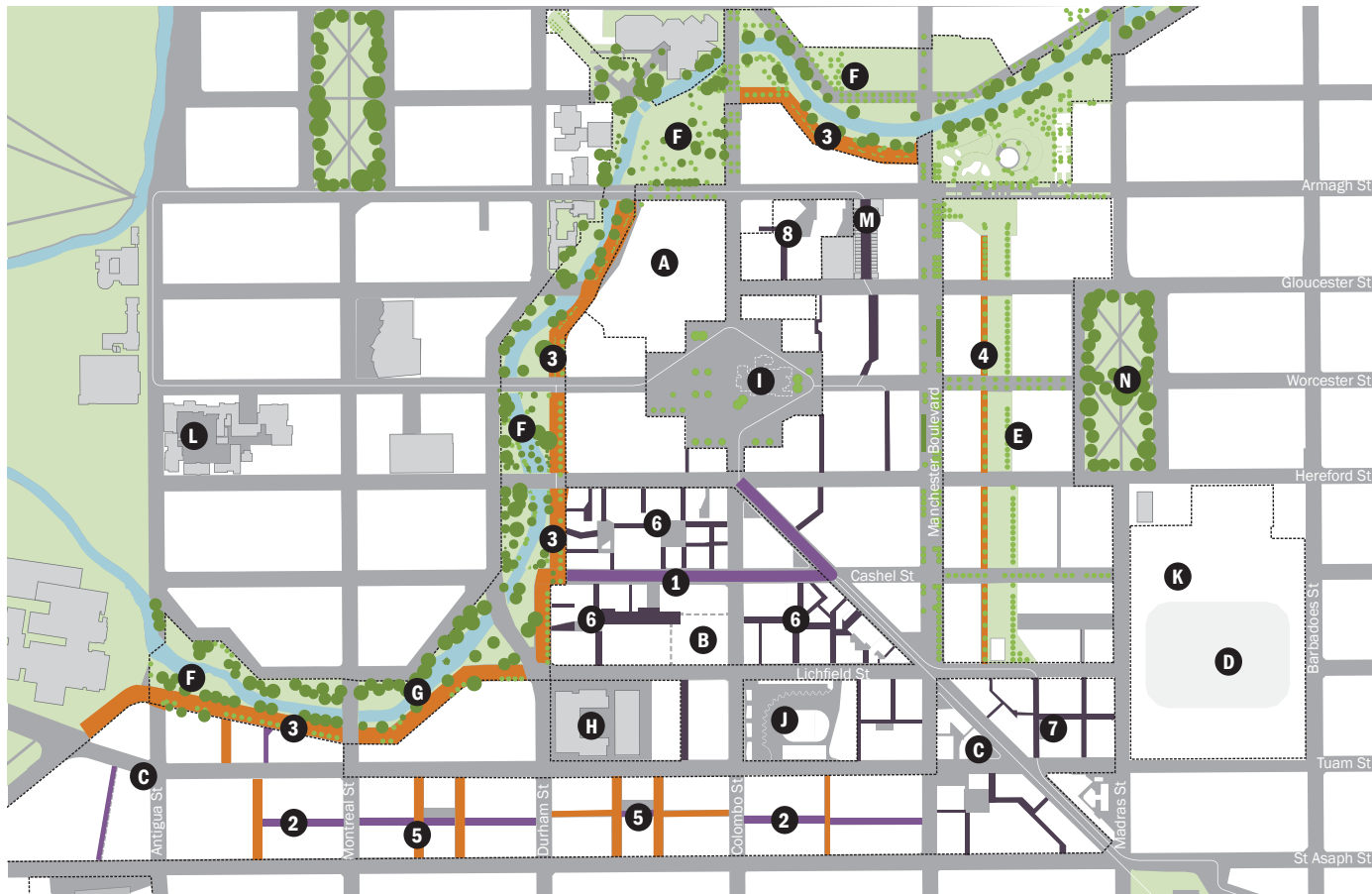
The pedestrian-focused streets in the central city complement the slow streets in the city Core. These streets cater for the travel modes identified in the central city road use hierarchy, as illustrated on page 81. Their varied cross-sections and layouts are explained in detail in Chapter 5.

TYPE	KEY FEATURES	TRAVEL MODE					EXAMPLE
		Walk	Cycle	Tram	General Traffic	Service Vehicle	
PEDESTRIAN PRIORITY STREET	<ul style="list-style-type: none"> Continuous surface level from building line to building line Distinct pavement material or landscape treatments Vehicular access is only for emergency vehicles and service vehicles, at restricted hours. Cycles are allowed but they don't have dedicated lanes Average speed 10km/h or less 	✓	✓	✓	X	✓*	City Mall and South Frame Greenway
SHARED STREET	<ul style="list-style-type: none"> Continuous surface level from building line to building line Distinct pavement material or landscape treatments Cycles are allowed, but they don't have dedicated lanes Average speed 10km/h or less 	✓	✓	✓	✓	✓	The Promenade in Te Papa Ōtākaro/Avon River Precinct and East Frame North-South links
LANE	<ul style="list-style-type: none"> Spatial proportion: taller than wider at a ratio of minimum 1:3 Lanes are open to the sky and the elements. May be used for street trading or outdoor dining on a temporary or permanent basis May use standard or distinct pavement materials Vehicular access, if required, is only for local access to carpark entries or service vehicles. Cycles are allowed but they don't have dedicated lanes Average speed 10km/h or less 	✓	✓	✓	✓*	✓*	Lanes in the Retail and Innovation precincts

Table 1: Pedestrian-focused street types

✓* only if required, restricted hours may apply





Legend

PEDESTRIAN PRIORITY STREETS

- 1. City Mall +
 - 2. The Greenway ·
- SHARED STREETS**
- 3. Ōtākaro/Avon River Promenade ·
 - 4. East Frame Links ·
 - 5. South Frame Links ·

LANES

- 6. Retail Precinct ·
- 7. South Frame Innovation Precinct ·
- 8. Performing Arts Precinct (indicative) ·

RELATED ANCHOR PROJECTS ·

- A. Convention Centre Precinct
- B. Retail Precinct
- C. South Frame
- D. Stadium Precinct
- E. East Frame
- F. Te Papa Ōtākaro Avon River Precinct
- G. Earthquake Memorial
- H. Justice and Emergency Services Precinct

KEY RELATED DESTINATIONS

- I. Cathedral Square *
- J. Bus Interchange ·
- K. Stadium Precinct ·
- L. Arts Centre +
- M. Performing Arts Precinct · and New Regent St +
- N. Latimer Square +

Note:
+ Existing
* Existing design to change
· Proposed

Figure 23 Central Christchurch existing and proposed pedestrian focused streets.

Pedestrian-focused streets

Pedestrian priority and shared streets

Ōtākaro/Avon River Promenade

The Promenade is a key component of the design for Te Papa Ōtākaro/Avon River Precinct. It runs primarily on the existing alignment of Oxford Terrace between Christchurch Hospital, southwest of the Core, and the Clock Tower on Manchester Street, northeast of the Core.

The Promenade aims to redefine the interface between the river and the city. This new shared street will provide an urban edge to the more natural character of the river.

The Promenade corridor provides an interface between the river and key anchor projects including the Health Precinct in the South Frame, the Retail and Convention Centre precincts and the East Frame residential precinct.

East Frame residential precinct – shared streets

As part of the new public spaces in the East Frame, a group of shared streets to the west boundary of the Central Park will be delivered. These north-south shared streets will provide an important pedestrian and cycle connection between Te Papa Ōtākaro/Avon River Precinct and the south of the central city. They will also enable local vehicular access to the new development parcels to the west of the park.

City Mall

City Mall is the main pedestrian shopping street in the central city and the public spine of the new Retail Precinct. It runs along Cashel Street from the Bridge of Remembrance in the west to the High Street intersection in the east. It also includes the section of High Street between Colombo and Cashel streets.

The existing tram route, established trees, planters and sitting areas contribute to a distinctive and popular destination for locals and tourists alike.

City Mall will become the main connector for the network of lanes and courtyards emerging within the Retail Precinct.

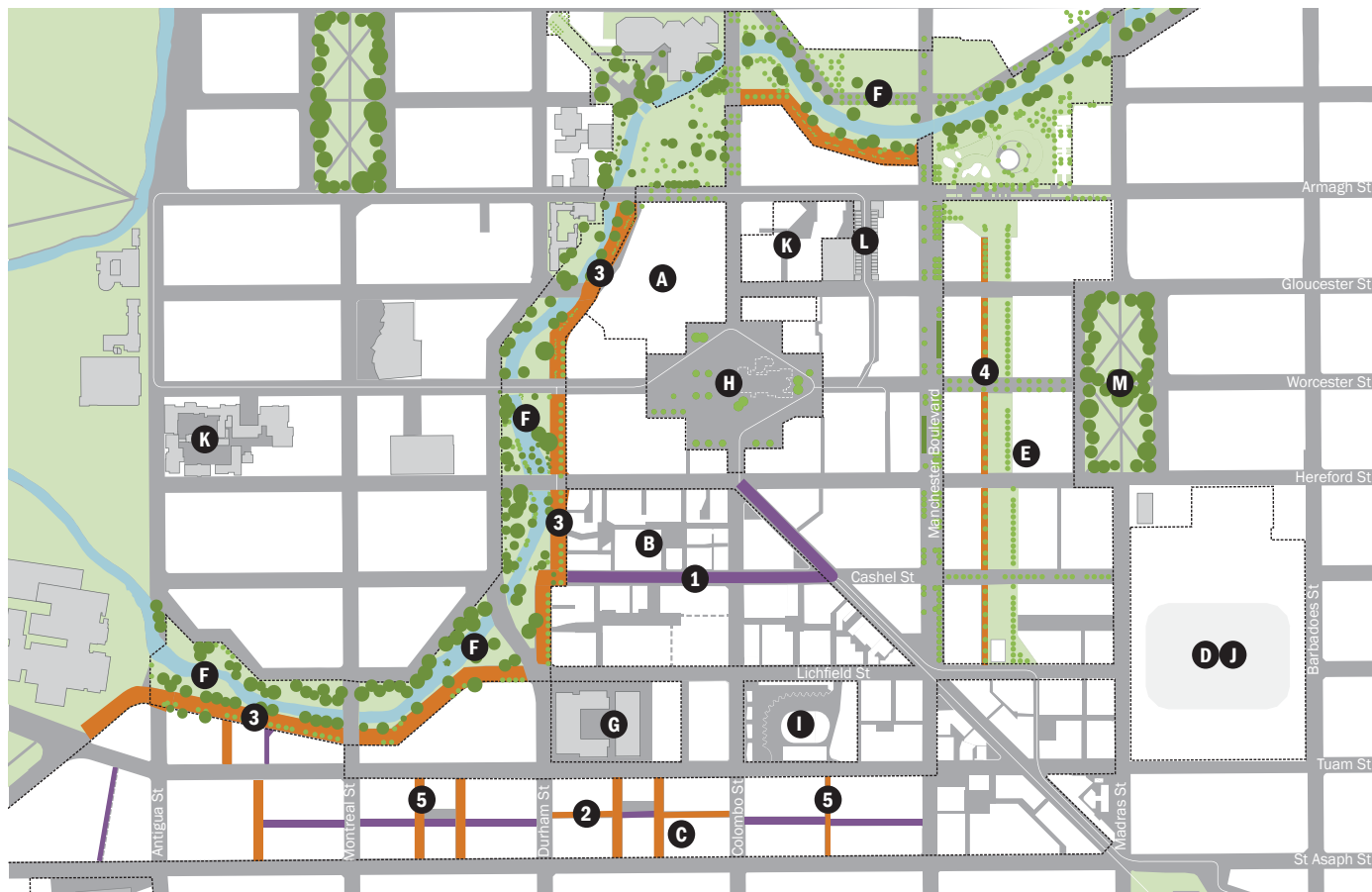
South Frame links

The South Frame anchor project will deliver a new network of public spaces within the project area which include shared and pedestrian priority streets, as follows.

- **The Greenway** will provide a pedestrian priority street between the Innovation and Health precincts. The Greenway will be characterised by generous and innovative landscape treatments and an intimate scale.
- **North-south links.** A number of shared streets between St Asaph and Tuam streets will be created to enhance the urban amenity, permeability and connectivity of the South Frame.

Further information on these types of streets is provided on Chapter 6.





Legend

PEDESTRIAN PRIORITY STREETS

- 1. City Mall +
 - 2. The Greenway ·
- Shared Streets**
- 3. Ōtākaro/Avon River Promenade ·
 - 4. East Frame Links ·
 - 5. South Frame Links ·

RELATED ANCHOR PROJECTS ·

- A. Convention Centre Precinct
- B. Retail Precinct
- C. South Frame - Health Precinct
- D. Stadium Precinct
- E. East Frame
- F. Te Papa Ōtākaro Avon River Precinct
- G. Justice and Emergency Services Precinct

KEY RELATED DESTINATIONS

- H. The Square *
- I. Bus Interchange ·
- J. Stadium Precinct ·
- K. Performing Arts Precinct ·
- L. New Regent Street +
- M. Latimer Square +

Note:

- + Existing
- * Existing design to change
- Proposed

Figure 24 Central Christchurch existing and proposed pedestrian priority and shared streets.

Pedestrian-focused streets

Lanes

The lanes in the central city were originally created to service many of Christchurch’s early warehouses and factories. Over time their role and character have evolved to form a network of intimate and connected spaces with an eclectic atmosphere.

The central city lanes have become a special element of the city’s pedestrian network, while many still provide service access to buildings.

The laneways contribute to the vibrancy, interest and distinctiveness of the central city in varied ways, such as by:

- increasing walkability and connectivity by providing mid-block linkages and pedestrian-friendly environments
- introducing a sense of discovery to the city through its discreet locations, intimate scale and varied character
- providing opportunities to express the local character and creativity through bespoke design.

They also provide settings for affordable lease spaces and small tenancies for emerging local businesses and creative enterprises.

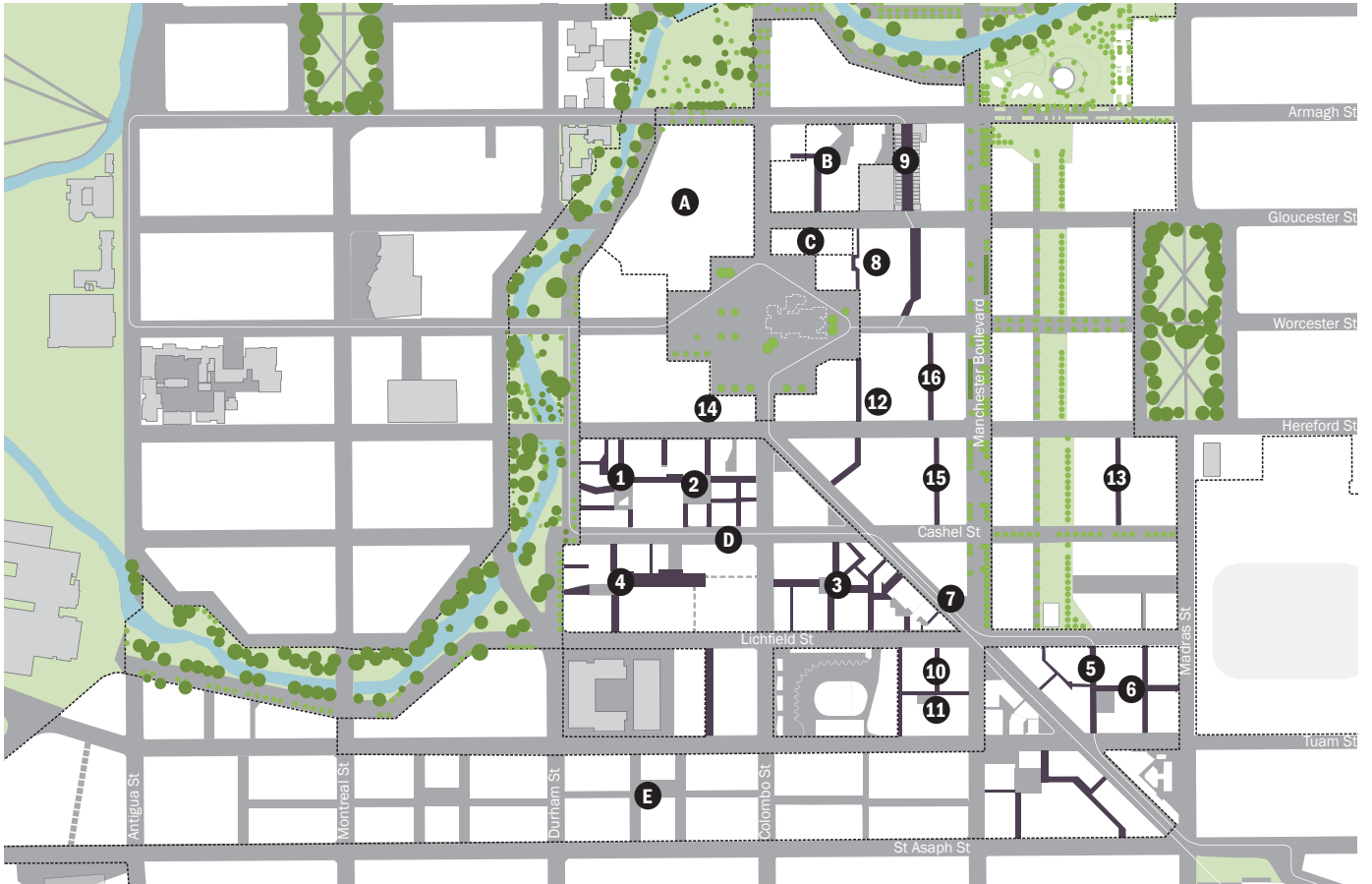
Lanes have specific spatial characteristics: they are always taller than they are wide, which provides a special intimacy and sense of enclosure to the space. This narrowness, however, is balanced by the direct access they give to the elements and views to the sky.

As a result of the recovery process, the network of lanes in the central city is being redefined. New opportunities for laneways in the new city precincts are being identified, including:

- the Retail Precinct lanes
- the Innovation Precinct lanes in the South Frame
- potential new lanes within the Performing Arts and Convention Centre Precincts

The *Central City Lanes Report – Lanes Design Guide*, commissioned by Christchurch City Council prior to the earthquakes, provides valuable **general guidance** for the design of lanes in the central city. As a result of earthquake damage, some of the information related to specific locations or precincts is no longer applicable. Chapter 6 of this document provides guidance and recommendations on the character and design of emerging lanes that are part of the anchor projects. The guidance should be read in conjunction with the general guidance developed in the Central City Lanes Report, which can be accessed at <http://www.ccc.govt.nz/cityleisure/projectstoimprovechristchurch/urbandesign/urbandesignguides.aspx>





Legend

LANES

Retail Precinct

- 1. The Terrace ·
- 2. Cashel Square ·
- 3. South East End ·
- 4. South West End ·

South Frame

- 5. Innovation Precinct - Poplar Lane *
- 6. Innovation Precinct - Ash Street *

Other Lanes

- 7. Stranges Lane +
- 8. Press Lane +
- 9. New Regent Street +
- 10. His Lordships Lane *
- 11. Struthers Lane *
- 12. Westpac Lane +
- 13. Woolsack Lane *
- 14. Strand Lane +
- 15. Tattersalls Lane +
- 16. Tramway Lane +

Related Anchor Projects ·

- A. Convention Centre Precinct
- B. Performing Arts Precinct
- C. Central Library
- D. Retail Precinct
- E. South Frame

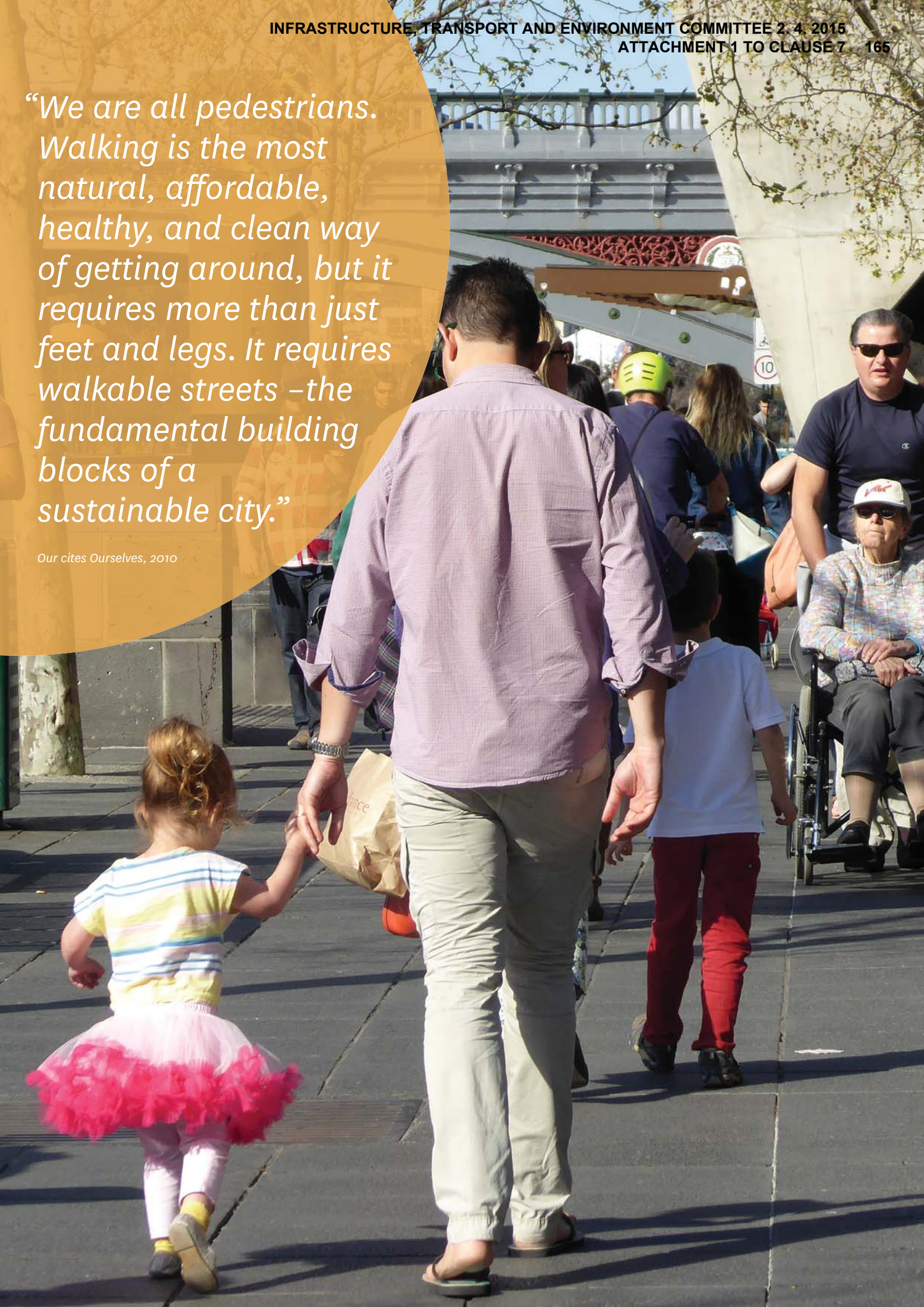
Note:

- + Existing
- * Existing design to change
- Proposed

Figure 25 Central Christchurch existing and proposed lanes

“We are all pedestrians. Walking is the most natural, affordable, healthy, and clean way of getting around, but it requires more than just feet and legs. It requires walkable streets – the fundamental building blocks of a sustainable city.”

Our cities Ourselves, 2010





05

STREETS
Ngā Huanui

Central city road user hierarchy

An Accessible City is the transport chapter of the Christchurch Central Recovery Plan (Recovery Plan). Accessible City considers how the different modes of travel should be distributed in the street network to support the economic, social and environmental recovery of the central city.

The *Accessible City* central city road use hierarchy illustrates the priority for the various modes of travel across the central city street network and how each mode relates to the others. This Streets and Spaces Design Guide provides the backbone to the structure of the street network in the central city and informs all design decisions about the functionality of the streets.

The way this Design Guide informs the design of the central city street network is illustrated in the following pages.

A brief outline of Accessible City is provided on page 34 of this document. For detailed information, visit: <http://ccdu.govt.nz/the-plan>



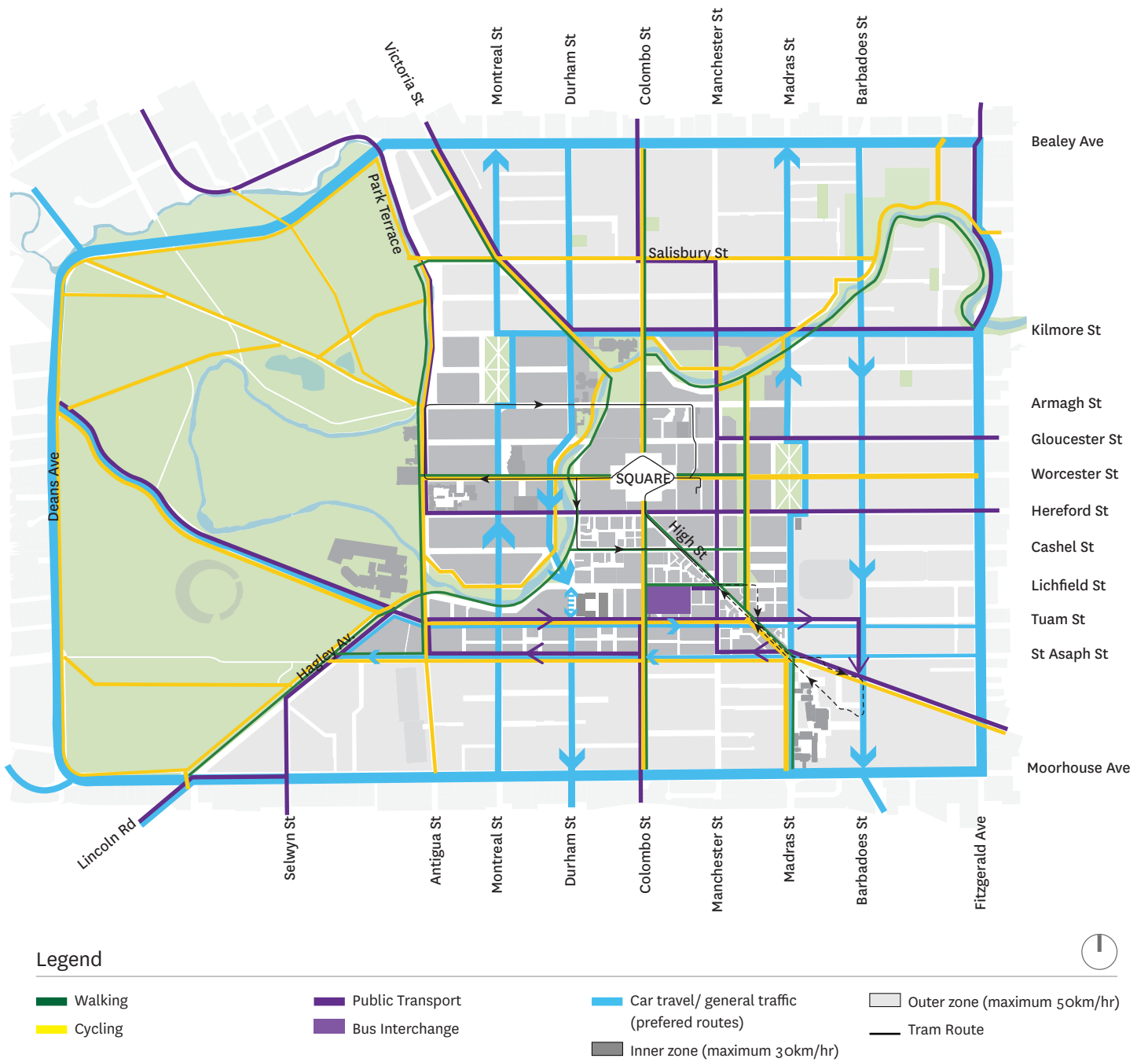


Figure 26 An Accessible City - Central City Road User Hierarchy

Sharing the street

The street network is the largest component of the entire public realm network in the central city.

Streets carry the lifeblood of the city each day, catering for people using different modes of transport including walking, bicycling, public transport, private and service vehicles. With limited space between buildings, the space within the street needs to be shared appropriately. How the street is shared relates to the specific context and the larger network for navigating the city, as contained in the Accessible City Road User Hierarchy diagram on page 81.

While streets are designed to ensure effective and efficient mobility for people using different transport modes, they should as well be places where people can enjoy and absorb the city. Streets are the welcome mat for local business, the outdoor dining spot for local cafes and an opportunity to connect with nature and better manage our water. Sharing the street differently by promoting and supporting public transport, walking and cycling will also contribute to minimising greenhouse emissions and clear our air.

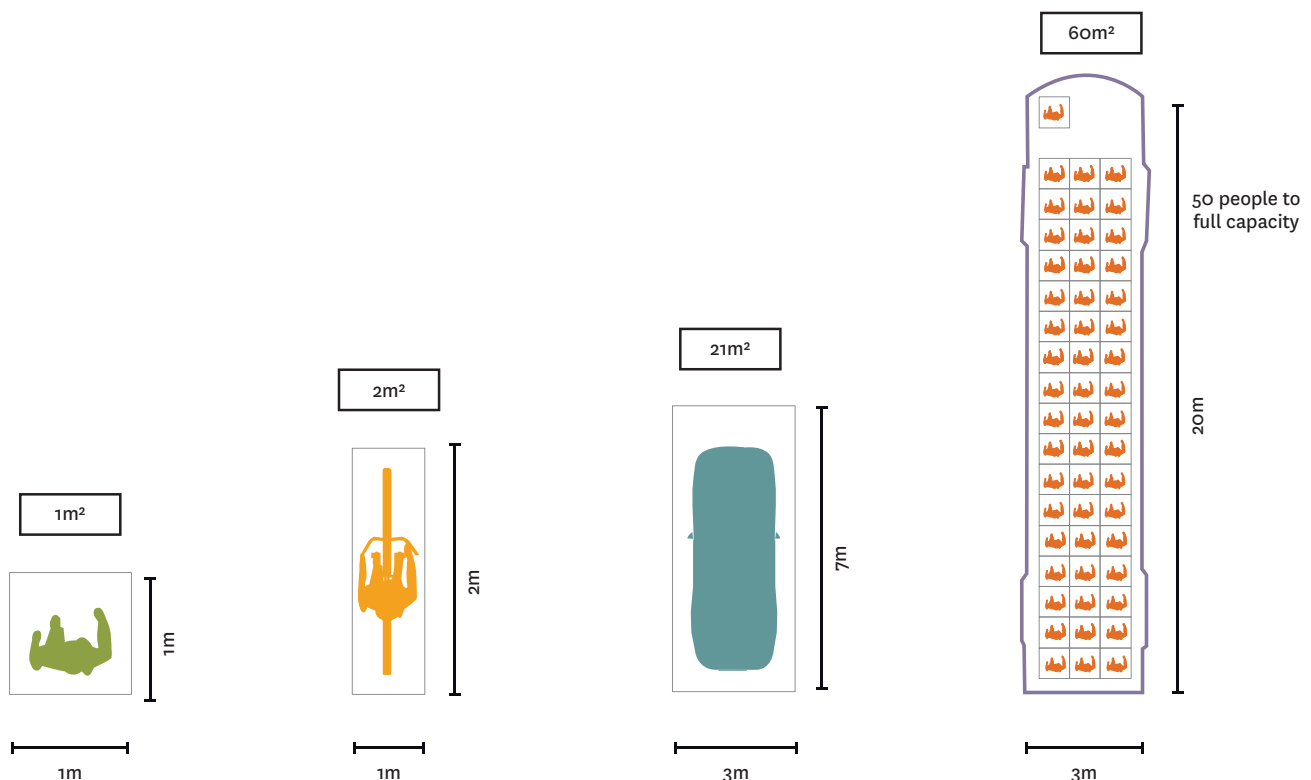


Figure 27 Spatial area distribution - ONE PERSON



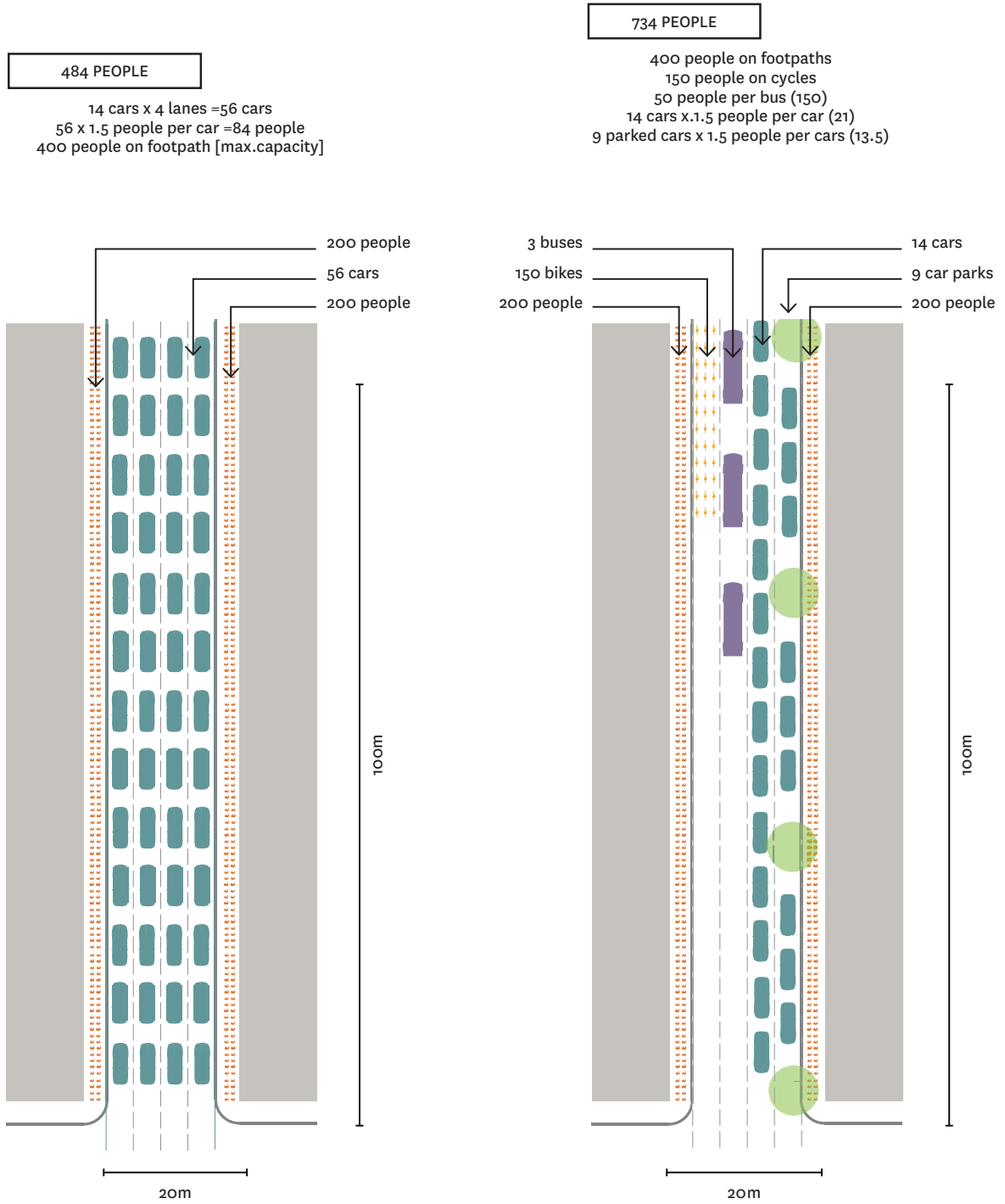


Figure 28 Spatial area distribution - ONE STREET, maximum capacity

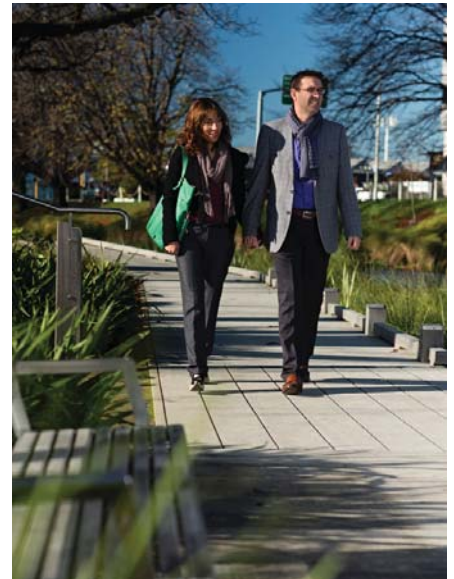
Walking

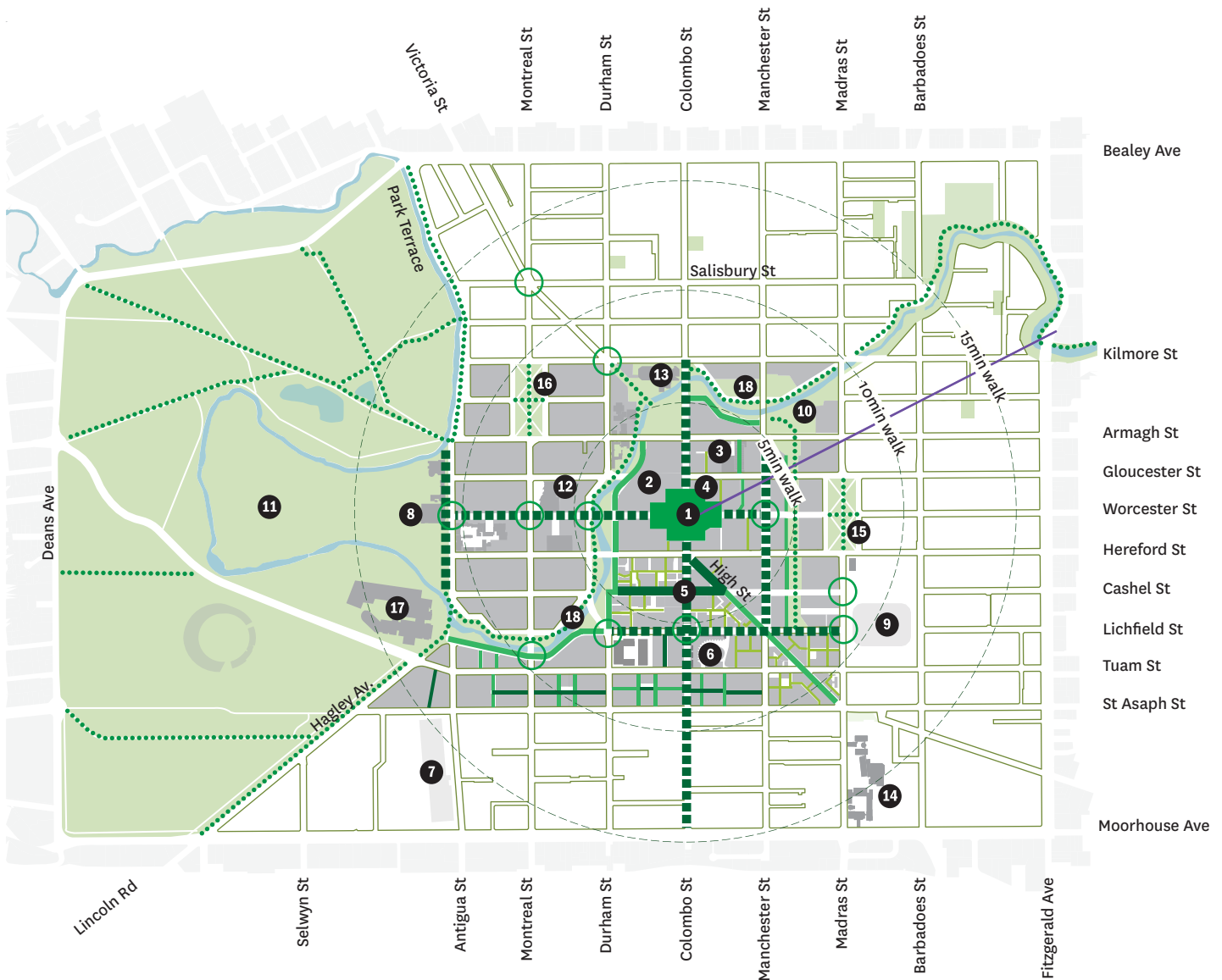
Attracting more people to work, live and recreate in the central city is essential for the successful recovery of central Christchurch.

A key factor in attracting more people is providing the conditions for a more walkable city centre, accessible by everyone.

Most of the existing and proposed amenities and facilities in the central city are generally located within five to ten minutes' walk. Initiatives to make the most of this convenience and improve the quality of the walking network include:

- reducing vehicular speeds in the inner zone and other designated low-speed streets
- creating a varied range of walking experiences and routes with good access to the river and open spaces
- creating high-quality journeys, in particular when linking key destinations
- introducing more greenery in the street network
- increasing the effective width of standard footpaths where possible, by relocating street elements and trees outside the footpath
- providing widened footpaths along key routes and activity corridors such as retail areas
- providing a range of seating opportunities for people to stop, rest or socialise.





Legend

WALKING

- Pedestrian priority streets
- Wide footpaths
- Park walkway
- Shared street
- Lanes
- Standard footpath
- Key pedestrian crossings
- Inner zone (maximum 30 km/h)

KEY DESTINATIONS

- 1. Cathedral Square
- 2. Convention Centre Precinct
- 3. Performing Arts Precinct
- 4. Central Library
- 5. Retail Precinct
- 6. Bus Interchange
- 7. Metro Sports Facility
- 8. Canterbury Museum
- 9. Stadium Precinct
- 10. Family Playground
- 11. Hagley Park and Botanical Gardens
- 12. Art Gallery
- 13. Town Hall
- 14. CPIT campus
- 15. Latimer Square
- 16. Cramner Square
- 17. Christchurch Hospital
- 18. Te Papa Ōtākaro Avon River Precinct

Figure 29 Walking network

Cycling

Increased cycling in the central city is at the core of the travelling mode shift required to create a city that is easy and enjoyable to move around and where congestion is managed.

Improved cycling facilities on a number of key streets are a feature of the central city public realm network, offering a range of options for different levels of confidence.

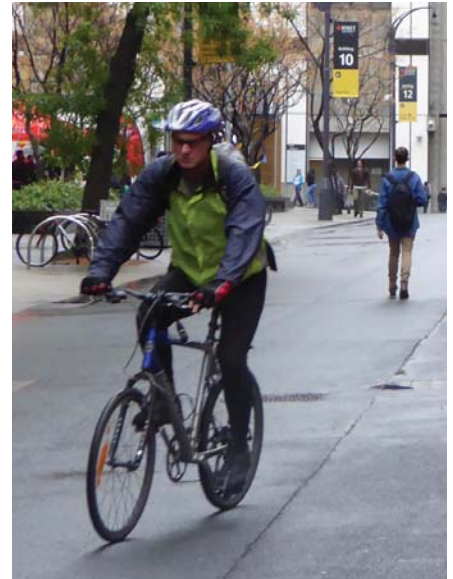
The streets identified in Accessible City as key cycle routes provide continuity to the Major Cycleways network envisaged by Christchurch City Council's Christchurch Major Cycleways Programme. This programme seeks to:

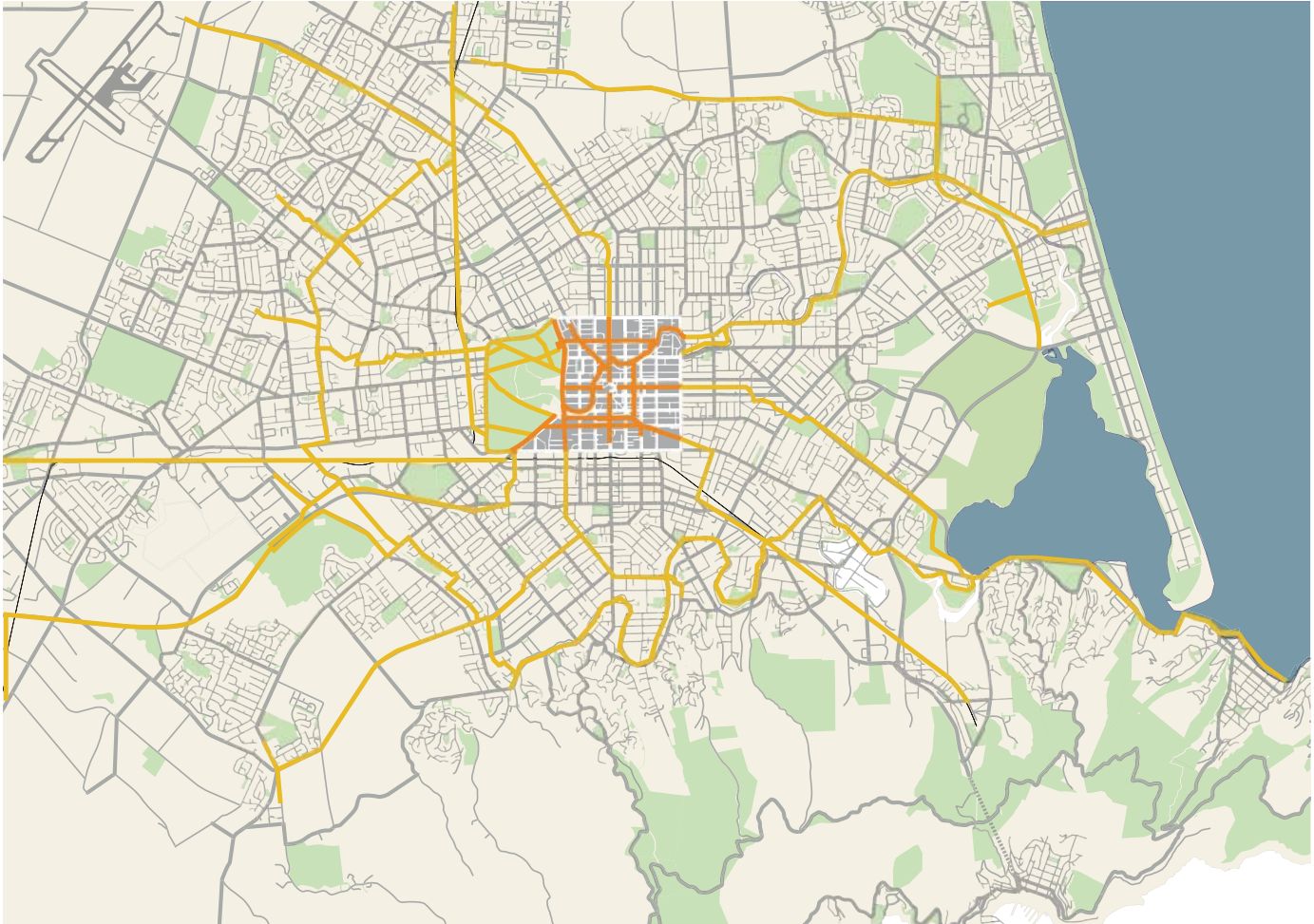
- establish a high-quality cycle network for the city, providing safe and attractive links to popular destinations and key activity centres
- reinforce the city's cycle status
- encourage more people to take up cycling.

The Major Cycleways routes aim to cater for both adults and children (10 years and over), and generally people who are curious about cycling but are afraid to ride, or ride very infrequently.

Accessible City sets out to deliver matching facilities within the central city wherever possible.

For detailed information on the Major Cycleways Programme, visit: www.ccc.govt.nz/cityleisure/projectstoimprovechristchurch/transport/cycleways/index.aspx





Legend

- Key cycleways in the central city
- Major cycleways outside the central city



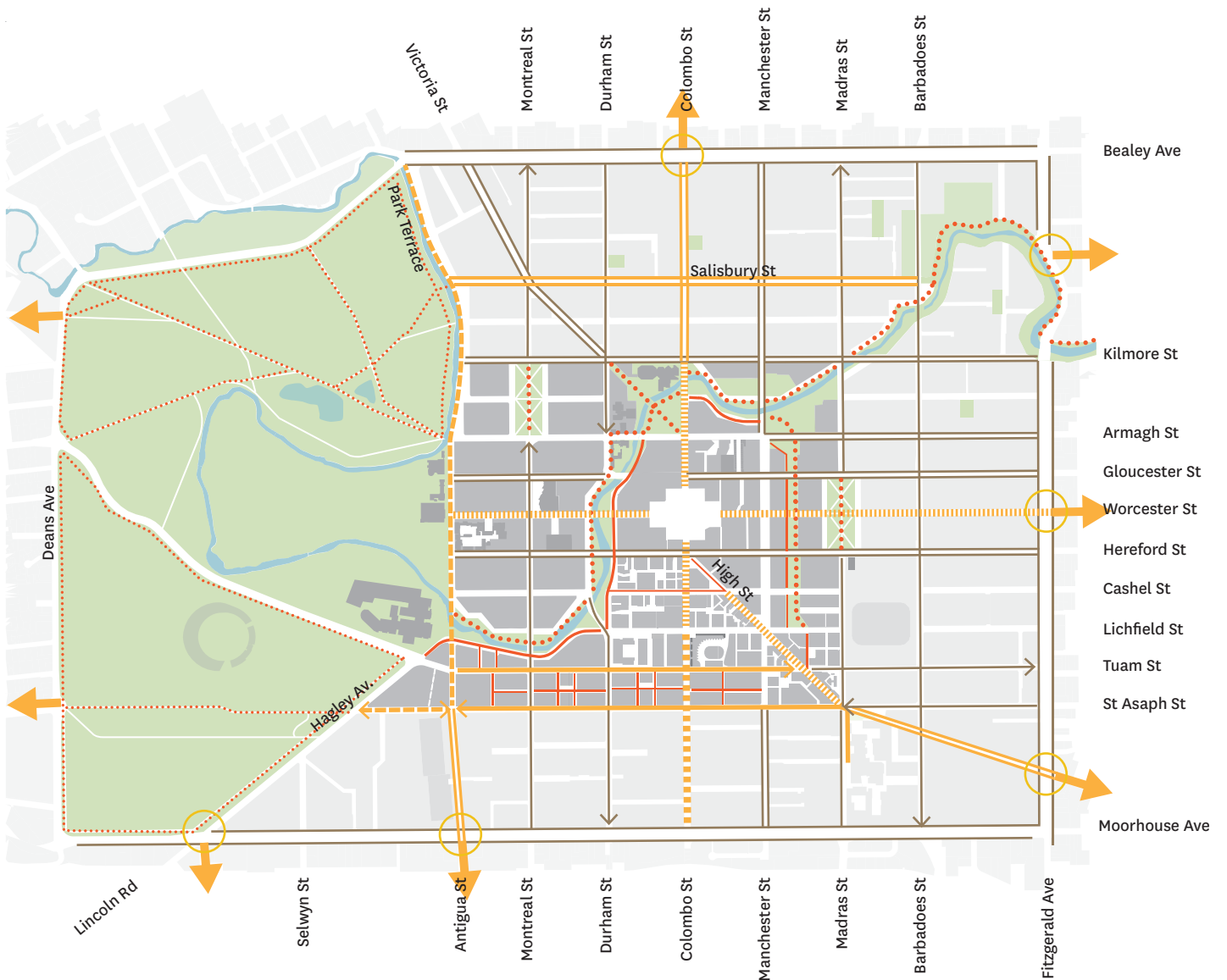
Figure 30 Illustrates the proposed cycling network for greater Christchurch and how it connects with the key cycle routes in the central city. A key aspect of integration is designing safe cycle crossings at entry points to the central city across the avenues.

Cycling

The proposed cycle network in the central city includes:

- continuity to the Major Cycleways routes planned outside the central city
- separated bicycle facilities on most key routes identified in Accessible City where streets are not otherwise slow streets
- shared routes in the slow central core, where key streets are designed as an environment conducive to sharing street space and cycle separation is less important
- on-road cycle lanes wherever possible elsewhere
- intersection treatments at key locations
- on street bicycle parking facilities at key locations. Specific locations will be determined as part of the detailed streetscape design for each street. Provision of additional public cycling facilities is being investigated in the Christchurch Central Parking Plan.
- encouraging the incremental provision of supporting facilities such as shared schemes.





Legend

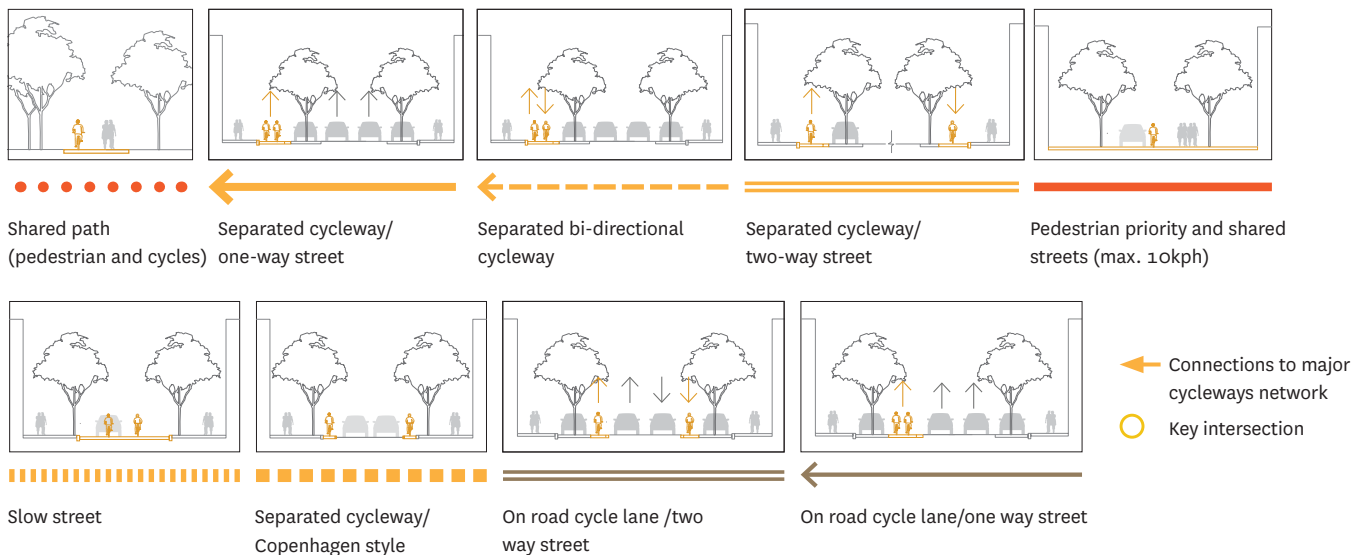


Figure 31 Cycle network

Public transport

Increased bus patronage to access the central city is another key shift in travelling patterns required for a more efficient, sustainable and productive central city.

To support this shift while managing congestion, the number of bus routes entering the city will be reduced while the frequency of buses on those routes will increase. There will be a network of core bus routes coming through the central city from connected suburban interchanges, which is part of Environment Canterbury's city-wide operational plan for bus services. In addition:

- the bus routes will generally travel around the edge of the core. Main routes will be provided at expected peak frequencies of six buses per hour and other routes at four buses per hour
- the network will be supported by a new Bus Interchange (an anchor project of the Recovery Plan) on the city block bounded by Lichfield, Colombo and Tuam streets. The Interchange will be supported by high-quality 'super stops' on Manchester Street and on the west end of Tuam Street, near the hospital

- intercity services will operate on street from the same location as the Bus Interchange, sharing its passenger facilities
- allowance of design clearance for double-decker buses is required on all bus routes
- bus pre-emption of traffic signals will be implemented from major super stops and on major bus routes
- opportunities for smart technologies to support the operation of the network are being investigated
- shuttle services linking the different routes within the core and key destinations will be investigated once the main network is established and the reconstruction of the central city and its anchor projects progresses.

The wider Christchurch bus network is available at www.metroinfo.co.nz/map





Legend

- Bus routes
 - Bus Interchange
 - Bus super stop
 - Potential bus stops*
 - Inner zone (maximum 30 km/h)
 - Tram route
- *subject to detailed route and scheduling considerations and consultation approvals

Figure 32 Public transport network

Trams

Trams provide the central city streets with a special character and an enjoyable way to reach key destinations.

The Christchurch City Tram links major central city destinations including Hagley Park, Cathedral Square, the Canterbury Museum, the Art Gallery and the Retail, Convention Centre and Innovation precincts.

The re-establishment of the tram infrastructure and operation has been planned in stages.

The original loop along New Regent Street, Cathedral Square, Worcester Street, Rolleston Avenue, and Armagh Street is complete.

Stage 1 corresponds to the extension of the loop to the Retail Precinct. This stage is expected to be in full operation by March 2015.

Stage 2 corresponds to the extension of the route along High Street to the CPIT campus. Implementation of this stage is subject to further planning and funding approvals.

The tram infrastructure and fittings such as poles and stops contribute to the character of each stage. The loop has a heritage character with many infrastructure elements dating from 1905. Stages 1 and 2 will have a contemporary character and complement the many new buildings along the route.





Legend

- Tram route loop and stage 1.
- - -> Tram route stage 2.
- Existing tram stop
- Proposed tram stop*
- Inner zone (maximum 30 km/h)
- * subject to approval

KEY DESTINATIONS

- | | | |
|----------------------|--------------------------------|---|
| 1. Cathedral Square | 6. Botanical Gardens | 12. New Regent Street |
| 2. Central Library | 7. Hagley Park | 13. Te Papa Ōtākaro Avon River Precinct |
| 3. Art Gallery | 8. Cranmer Square | 14. Retail Precinct |
| 4. Arts Centre | 9. Victoria Square | 15. Innovation Precinct |
| 5. Canterbury Museum | 10. Convention Centre Precinct | 16. CPIT campus |
| | 11. Performing Arts Precinct | |

Figure 33 Tram network

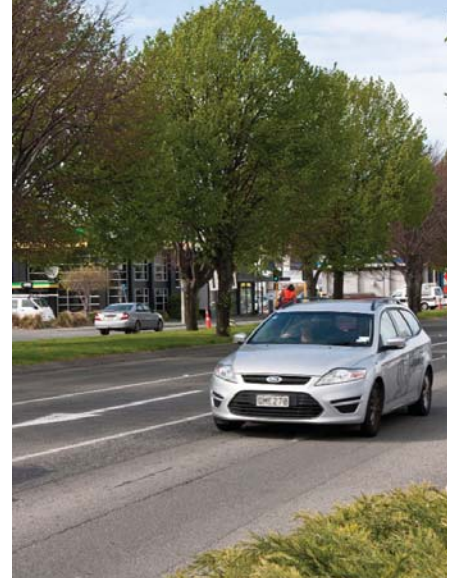
General traffic

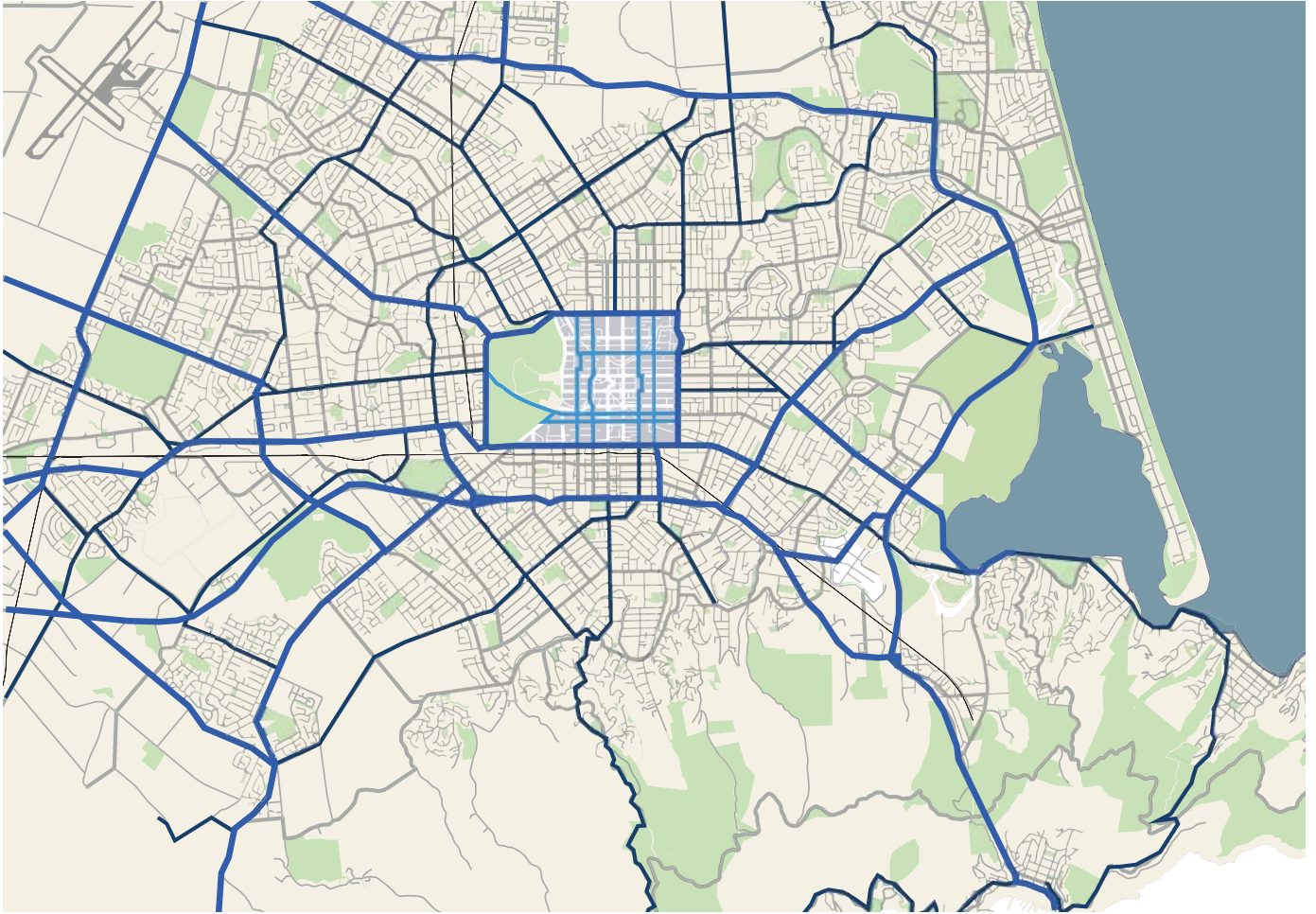
The streets identified in Accessible City as preferred vehicle routes are called *main distributor streets*.

These streets are connected to the wider network of arterial roads through the avenues that surround the central city.

The main objectives for vehicle movements in the central city are to:

- reduce conflicts with other modes of travel prioritised in specific streets
- support increasing activity and accessibility by maintaining efficient vehicle access to the central city on key routes for general traffic, servicing and emergency vehicles.





Legend

- Main distributor streets in the central city
- Major arterial roads outside the central city
- Minor arterial roads outside the central city

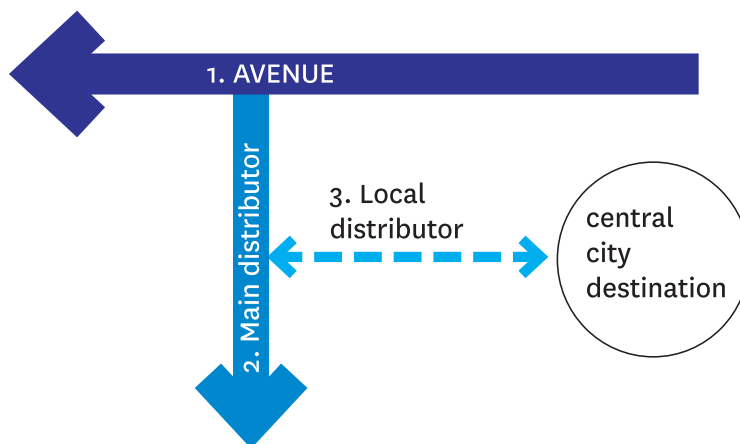


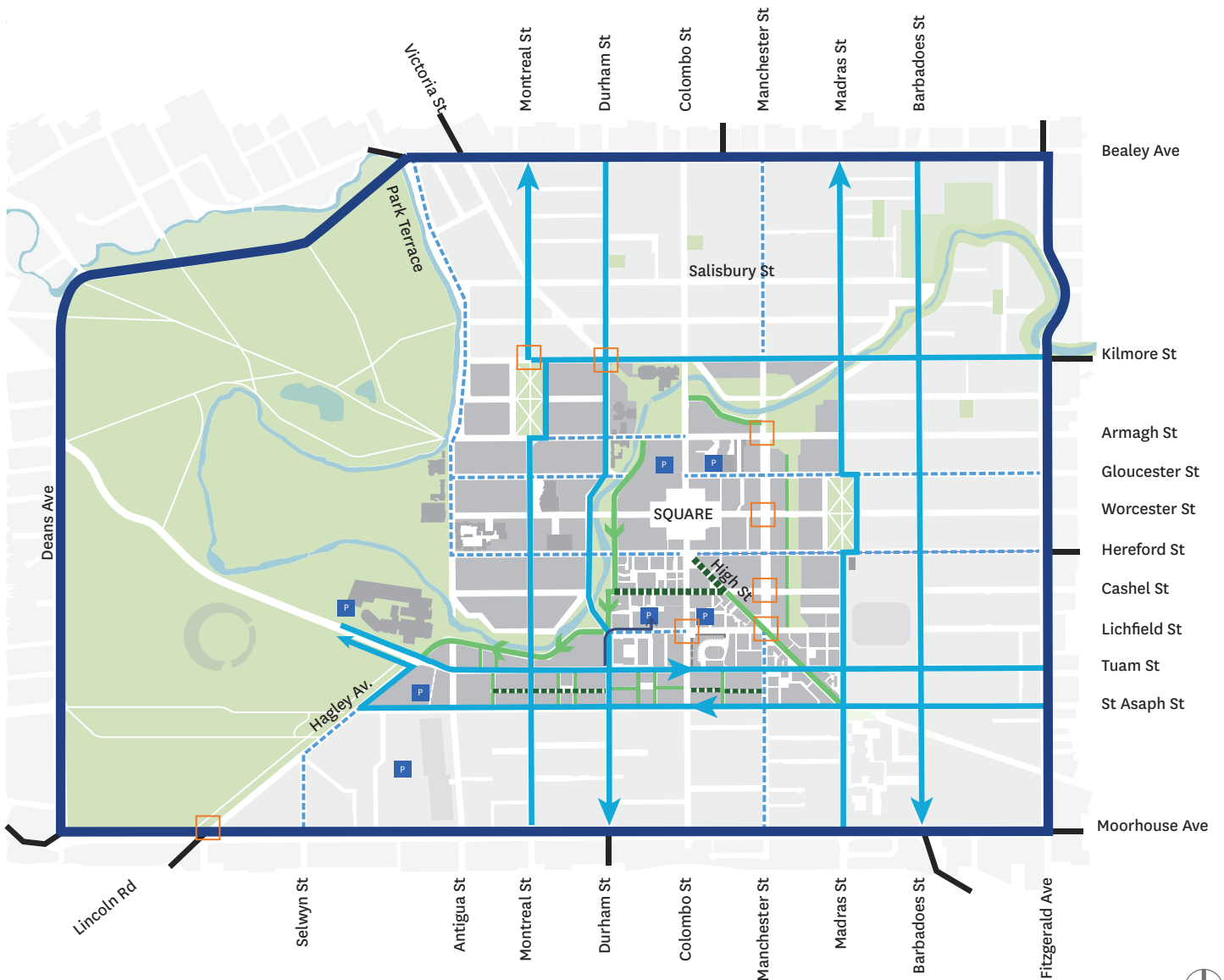
Figure 34 Christchurch major arterial road network

General traffic

Achieving the objectives for the general traffic network involves:

- redirecting traffic without a destination in the central city to travel around the avenues (Bealey, Fitzgerald, Moorhouse, Deans and Harper) and therefore discouraging through movements. This involves progressively changing some key intersections around the perimeter of the central city
- using the avenues as a ring road for radial access to the city centre
- encouraging vehicles travelling into the central city and the Core to use main distributor streets that lead off the avenues and then to use local distributors with direct access into the Core and key parking facilities
- decreasing speed limits to no more than 30kph in the inner zone. This speed reduction will support safer streets and a pedestrian- and cycle-friendly central city
- encouraging freight, as far as practicable, to use the avenues for cross-city movements
- encouraging delivery and service vehicles to use main distributor streets for accessing the Core (prioritised outside peak and inter-peak periods) and local streets or lanes to access buildings
- coordinating traffic signals to enable reliable travel times and speed management.





Legend

- █ Avenues (arterial road)
 - ➔ Main distributor streets
 - ▬ Preferred vehicular access
 - Likely turn restrictions
 - Inner zone (maximum 30 km/h)
 - Outer Zone (maximum 50km/hr)
 - █ Shared street
 - Pedestrian priority streets
 - P Proposed off street parking*
 - ➔ Car park access route
- *known at the time of publication

Figure 35 Central city general traffic network

Over-dimensional routes

The over-dimensional routes plan identifies streets in and around the central city that can accommodate large loads, such as large prefabricated construction materials or construction machinery.

The over-dimensional routes should be able to accommodate loads that fit within an envelope of 10 metres wide and 6 metres high.

Given the infrequency of these type of loads, the over-dimensional envelope can project outside the carriageway and may straddle low street furniture and central medians. However, a clear corridor is required, as illustrated in Figure 37. This requirement has some implications for the selection of street furniture and tree locations and species.

Prior to the Canterbury earthquakes some of the over-dimensional routes used the central city street network on cross-city routes to reach destinations elsewhere. These routes have been reviewed and

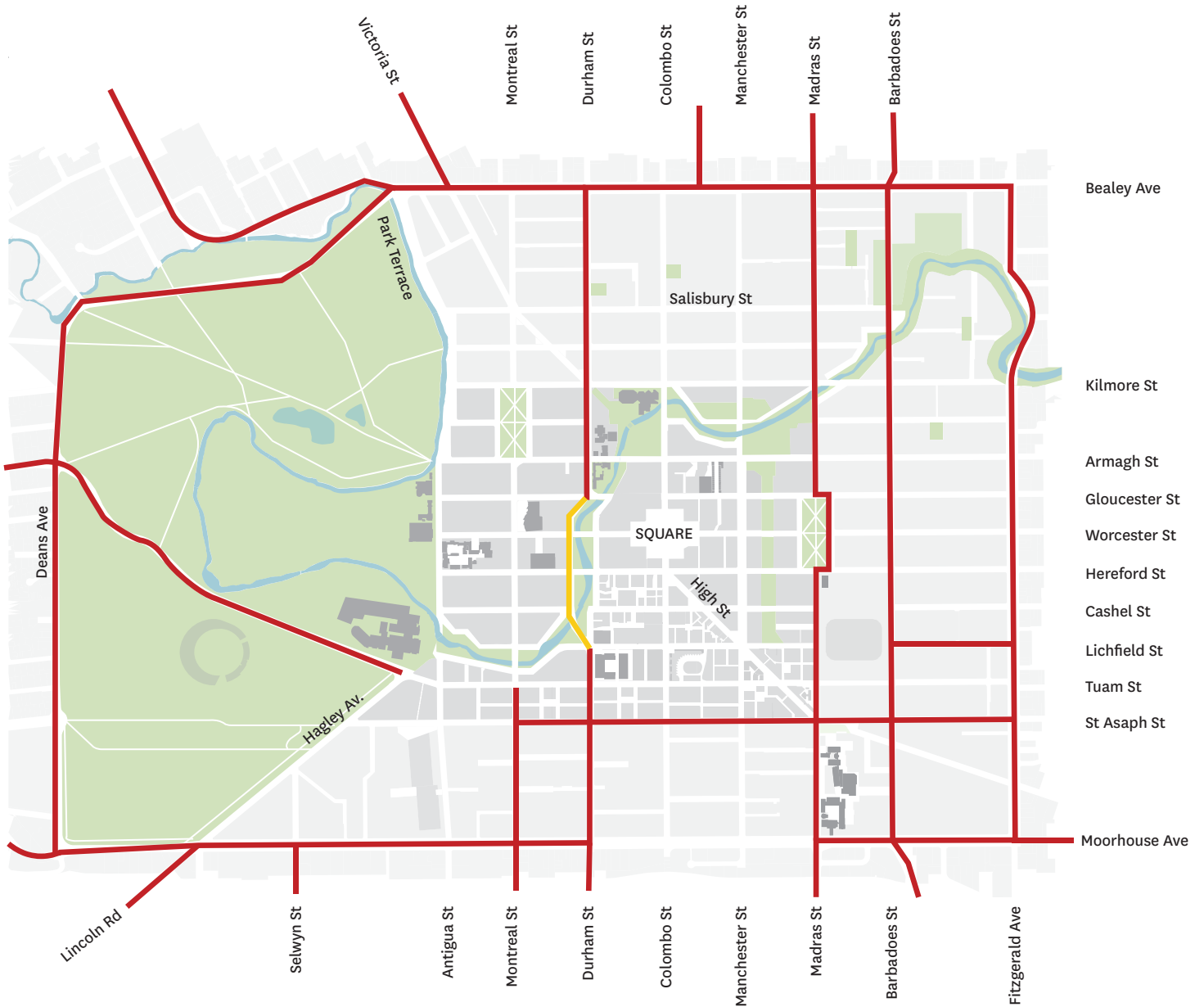
rationalised to align with Accessible City objectives of redirecting traffic without a destination in the central city and discouraging traffic movements through the city.

Figure 36 illustrates the streets that remain as over-dimensional routes to travel around the central city or to access the city centre from the avenues, mainly from the north and south.

The criteria for selecting these streets as over-dimensional routes included that they:

- coincide, in most cases, with the main distributor streets and the surrounding avenues
- can also take overweight vehicles.





Legend

- Proposed over dimensional and overweight routes
- Overweight route only

Figure 36 Central city over-dimensional routes

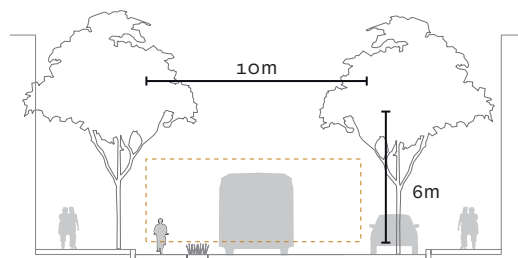


Figure 37 Over-dimensional envelope

Street trees

Christchurch has established, and much cherished and admired, tree-lined avenues. Most existing trees are located within Hagley Park or on the banks of the Ōtākaro/Avon River, in wide central medians and along some of the street edges.

The reconstruction of the central city provides a one-off opportunity to extend this key feature beyond the city's avenues and through open spaces in a consistent manner.

In addition to providing the economic, environmental and social benefits outlined in Chapter 2, they:

- contribute to the character of streets and public spaces
- bring formality, structure and a sense of 'procession' to the city
- provide strong, visual cues that orientate people throughout the city
- create an attractive, comfortable and changing environment for people
- increase real estate values and encourage investment
- mitigate the effects of traffic.

Trees are a key element for delivering a 'greener city'. They are integral to the vision, themes, design principles and strategic approach of the Streets and Spaces Design Guide, as outlined in Chapters 1 and 2.

The plan on the opposite page shows the tree species selected for the central city street network. These species have been selected to strengthen the hierarchy and purpose of each street.

The selection is consistent with the objectives and criteria of the Draft Christchurch City Council Tree Policy. In addition, these species generally are:

- frost and wind hardy
- tolerant of city soils and pollution
- drought tolerant

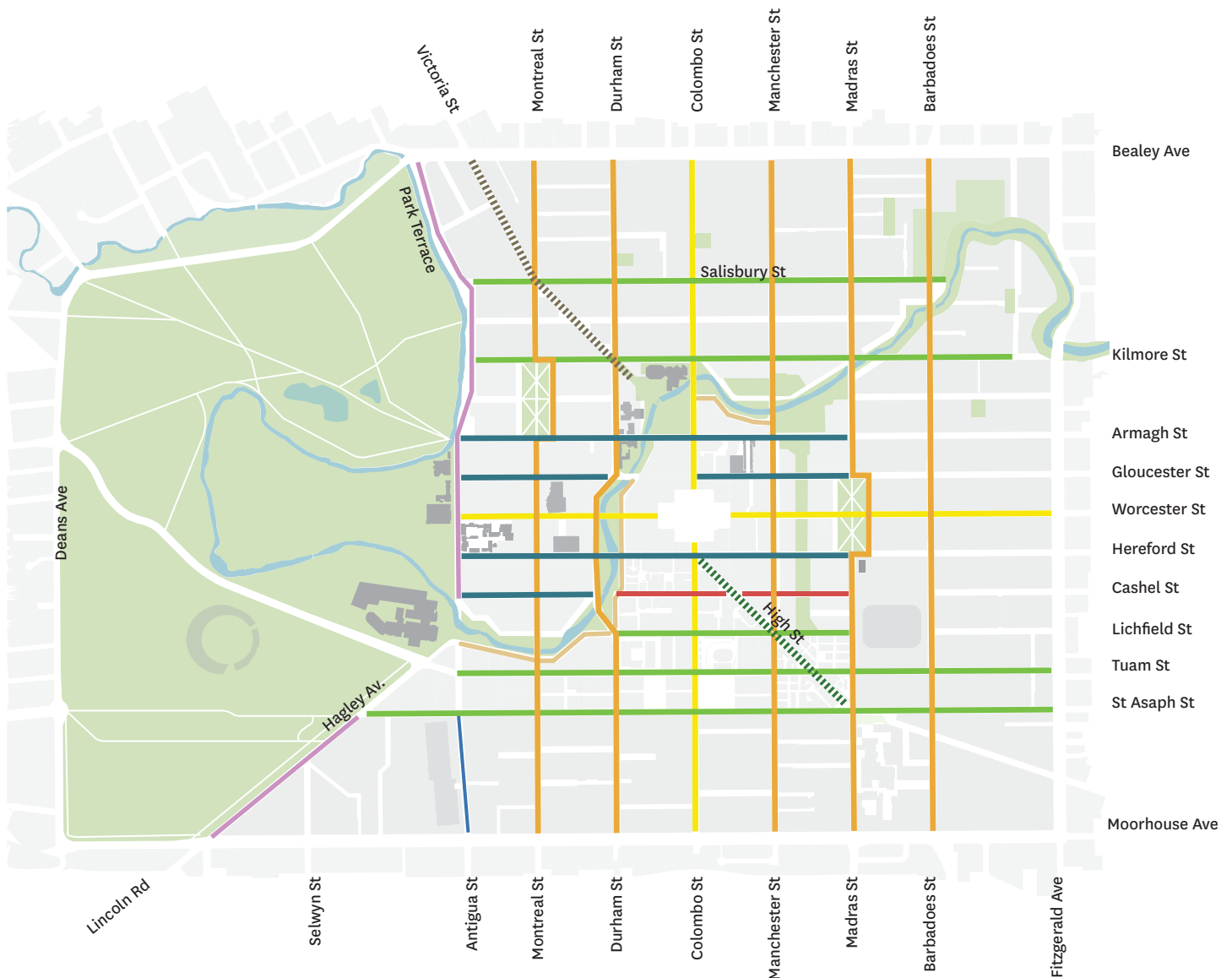
- of high visual impact, with attractive foliage and/or bark
- fast growing
- not prone to structural issues, such as falling branches or fragile trunks
- effective at mitigating transport-related greenhouse gases and urban heating.

Establishment of tree species is dependent on site-specific water table depth and therefore species may vary if conditions are inadequate. The Technical Guidance book of this Design Guide provides technical specifications for street trees, including tree pits and integrated water management practices.

“The best time to plant a tree was 20 years ago. The second best time is now.”

Ancient proverb





Legend

AXIS STREETS

Colombo Street, *Quercus palustris* 'Pin Oak'
Worcester Street, *Tilia platyphyllos* 'Lime'

NORTH SOUTH STREETS

Montreal, Durham, Madras, Barbadoes and Manchester Streets. *Liriodendron tulipifera* 'Tulip Tree'

EAST WEST CENTRAL STREETS (Inner Core)

Armagh Street, Gloucester Street and Hereford Street. *Corylus colurna* 'Turkish Hazel'

EAST-WEST STREETS

Tuam, St Asaph, Salisbury, Kilmore and Lichfield Streets.
Tilia Platyphyllos, 'Broad-leaved Lime'

ŌTĀKARO/AVON RIVER PROMENADE

Oxford Terrace, *Acer rubrum* 'Red Maple' and *Sophora microphylla* 'Kōwhai'

NORTH GATEWAY

Victoria Street, *Acer platanoides* 'Norway Maple'

SOUTH GATEWAY

High Street, *Quercus robur fastigiata* 'Upright English Oak'

PEDESTRIAN MALL

Cashel St, *Acer rubrum columnare* 'Upright Red Maple'

METRO SPORTS FACILITY

Antigua Street, *Knightia excelsa*, 'Rewarewa'

HAGLEY PARK EDGE

Park Terrace, *Quercus robur* 'English Oak' Rolleston Avenue, various existing trees Hagley Avenue, *Prunus x yedoensis* 'Cherry'

Figure 38 Proposed street trees

Street trees



***Quercus palustris* 'Pin Oak'**

Axis streets: **Colombo Street**

- Copper red in autumn
- Very hardy



***Tilia platyphyllos* 'Lime'**

Axis streets: **Worcester Boulevard**

- East-west streets: **Tuam, St Asaph, Lichfield, Salisbury and Kilmore streets**
- Iconic trees that reflect the grid pattern of the city and have a historical association for Christchurch
 - Great for form and scale of streets
 - Well-established trees exist on many of these streets
 - autumn colours, large leaves



***Liriodendron tulipifera* 'Tulip Tree'**

North-south streets: **Cambridge Terrace and Durham, Montreal, Madras, Barbadoes and Manchester streets**

- Bright yellow in autumn
- Tulip shaped greenish flowers
- Fragrant
- Fast growing



***Sophora microphylla* 'Kōwhai'**

Ōtākaro/Avon River Promenade: **Oxford Terrace**

- Yellow flowers
- New Zealand native



***Acer platanoides* 'Norway Maple'**

North gateway: **Victoria Street**

- Yellow (occasionally red/orange) in autumn
- Deciduous, allow light through in winter
- Attractive seed



***Quercus robur fastigiata* 'Upright English Oak'**

South gateway: **High Street**

- Great for form and scale of the street
- Well-established trees exist on High Street



***Corylus colurna* ‘Turkish Hazel’**

East–west central streets: **Hereford, Gloucester, Armagh and Cashel streets**

- Yellow in autumn
- Upright juvenile form, turning more rounded as it matures
- Deciduous, allows light through in winter
- Fruit can attract birds
- Well established trees in Cashel Street



***Quercus robur* ‘English Oak’**

Hagley Park edge: **Park Terrace**

- Broad spreading
- Iconic tree to Christchurch
- Will tie in to Hagley Park landscape



***Acer rubrum* ‘Red Maple’**

Ōtākaro/Avon River Promenade and **Cashel Street** between Oxford Terrace and Madras Street

- Vibrant red in autumn
- Appropriate form in close proximity to tram lines
- Deciduous, allow light through in winter
- Exist in Cashel Mall already



***Knightia excelsa*, ‘Rewarewa’**

Metro Sport Facility edge: **Antigua Street**

- Red flowers
- New Zealand native
- Upright tight growth habit

Pavements

Pavement surfaces are an important element influencing the character of streets and public places.

The plan on the opposite page identifies the preferred pavement types for specific areas in the central city.

The Streets and Spaces Design Guide - Technical Guidance book provides technical specifications, application and details for each pavement treatment.





Legend

- Type 1
- Type 2
- Type 3
- Maximum 30km/hr speed zone



Figure 39 Proposed pavement treatments

Street metrics

Most of the road corridors in the central city are 20.1m wide, which is a chain in the imperial measurement system.

Accommodating all the various travel modes and public realm needs within the existing corridor is often a challenging exercise.

The level of service (width) to be provided for each travel mode should be weighted according to the road user hierarchy of each street. The illustration on this page indicates the various provisions for each of the key elements in a street cross-section and the preferred dimensions for each mode or feature in order to deliver a good level of service.

The proposed cross-sections for the central city street network have been developed by cross-referencing the user priority established in Accessible City Road User Hierarchy Plan (shown in page 81) and the measurements on this page.

These metrics have been used to inform the recommended street cross-sections for groups of streets featuring in the following pages.

As a general principle, when defining the widths for the various modes of travel within a corridor, locating a minimum width besides another minimum width should be avoided.



WALKING



CYCLING



AMENITY ZONE



PUBLIC TRANSPORT



CAR TRAVEL



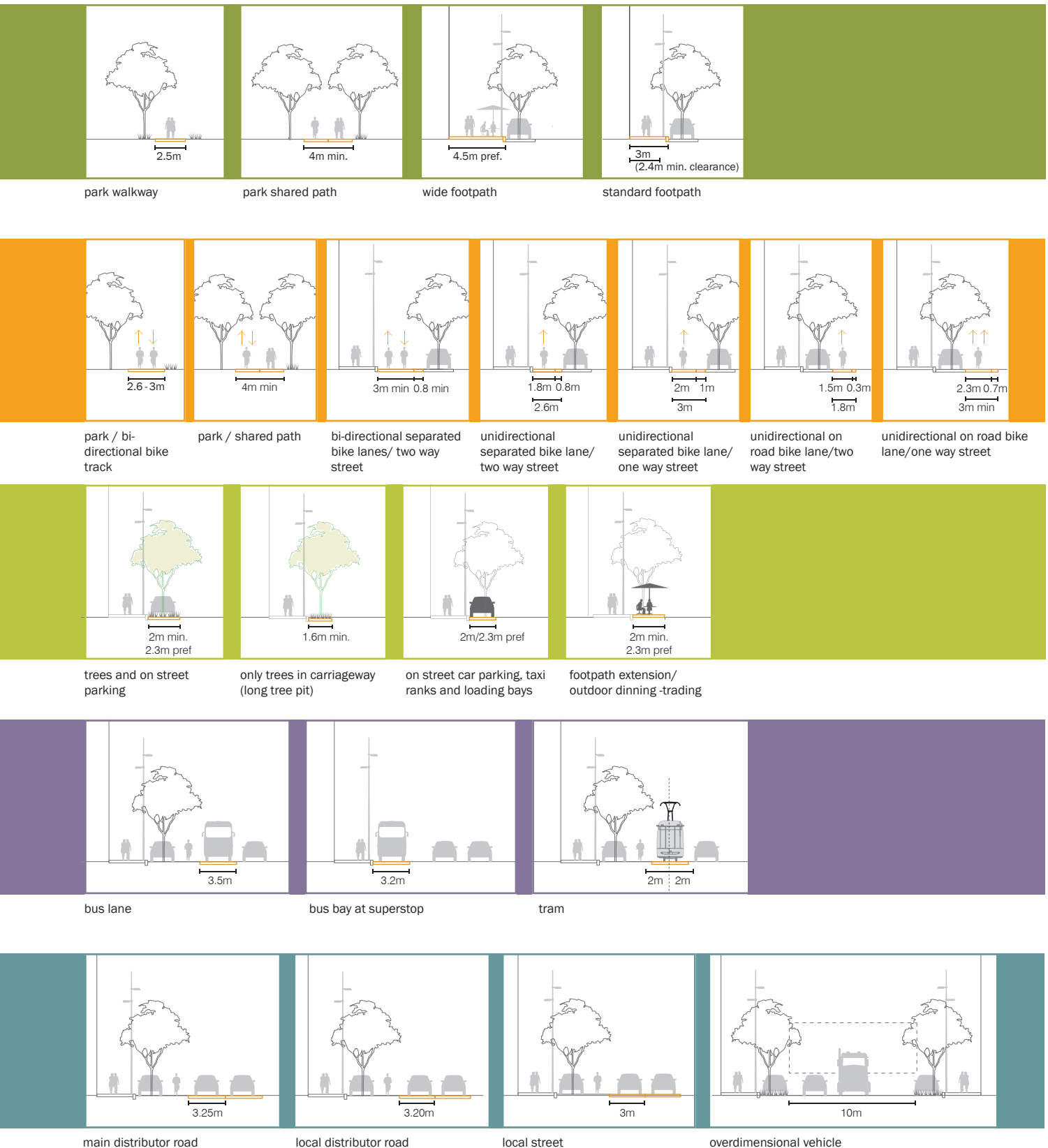


Figure 40 Widths and clearances for street cross sections

KEY STREETS

Recommended street cross-sections

For the purpose of this document the *street cross-sections* illustrate the functional space allocation for groups of street corridors in the central city that have a similar role or function. These groups of cross-sections are mapped in Figure 41.

The selected cross-sections:

- interpret the **Accessible City** Road User Hierarchy Plan for the different travel modes (walking, cycling, public transport, car travel)
- provide a structure for streets that contributes to the delivery of the vision for the public realm network of central Christchurch outlined in Chapter 1
- apply the thinking and technical considerations discussed in Chapter 2
- provide a robust ‘canvas’ for different street characters to emerge. The street character will be largely informed by emerging uses along the street corridors and the selection of materials, planting and street elements
- will be used to inform future streetscape design projects for central city streets, ensuring each project conforms to the key design principles of this Streets and Spaces Design Guide.

The cross-sections are conceptual in nature and will always require the skilled interpretation of designers at the detailed design stage of projects to respond to specific site conditions.

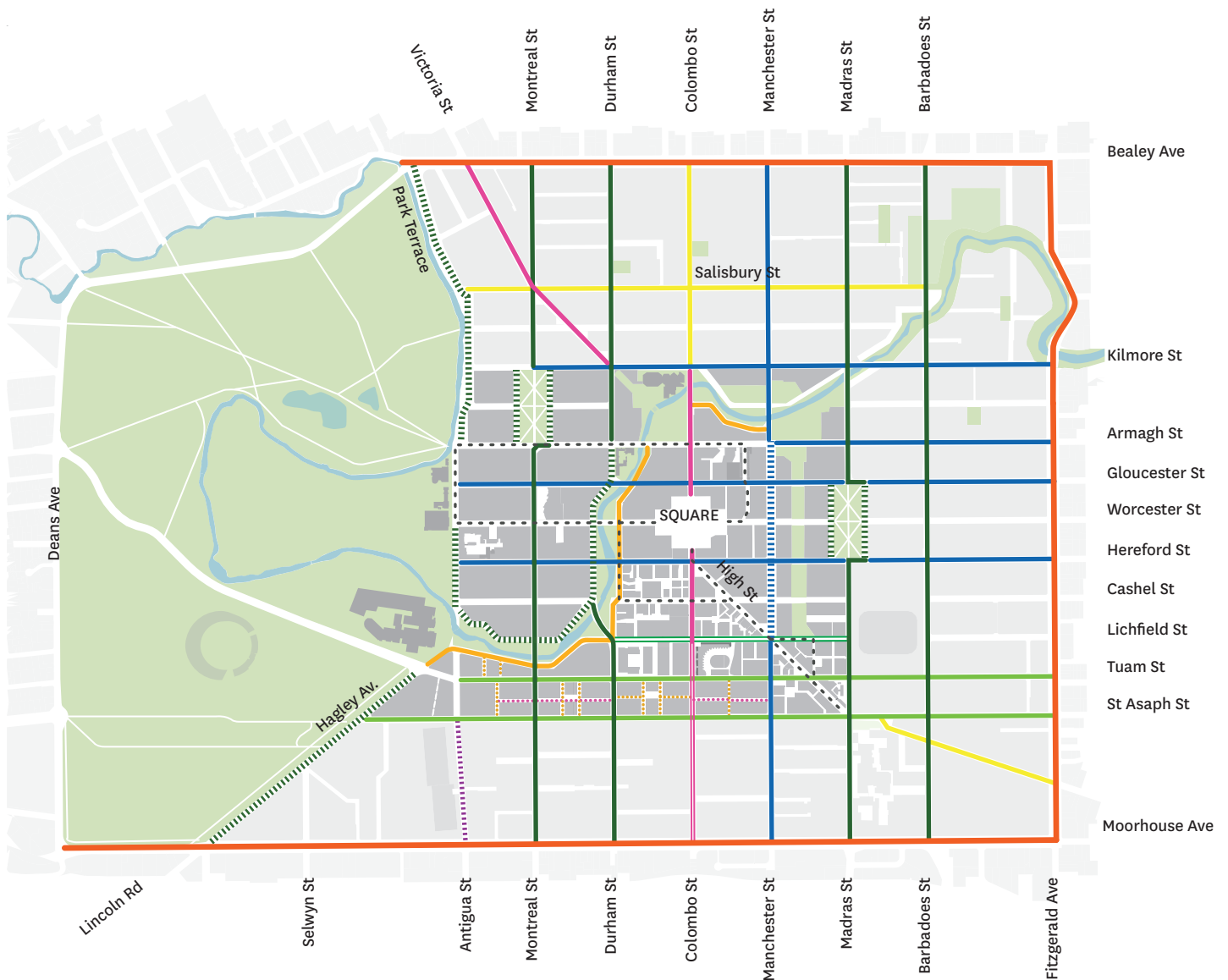
A correct interpretation of the cross-sections should generally maintain the basic structure proposed for the street. Maintaining the basic structure maximises functionality for the preferred mode(s) of travel and facilitates consistency of treatments across the central city. Consistent treatments are essential for creating a street network that is easy to understand and navigate, a chief objective for the public realm network in the central city.

Significant departures from the concept cross-sections will need to be assessed and approved on a case-by-case basis.

Detailed designs for streetscapes in the central city should be developed to address the design criteria outlined in Chapter 3.

Some streets have not been included in this chapter. These are mainly local streets where little change in functionality or street form is expected in the foreseeable future.





Legend

MAIN STREETS

Colombo Street (30km/h zone) and Victoria Street, pages 110-113

MOVING NORTH AND SOUTH

Montreal, Durham, Madras and Barbadoes Streets, pages 114-115

MOVING EAST AND WEST

Tuam and St Asaph Streets, pages 116-119

CONNECTING THE CYCLE NETWORK

Colombo Street (North), Salisbury Street and Ferry Road, pages 120-121

MOVING WITHIN THE CITY

Kilmore, Gloucester, Hereford and Manchester Streets (Outer Zone), pages 122-123

PUBLIC TRANSPORT ROUTE

Manchester Street, pages 124-125

ŌTĀKARO/AVON RIVER PROMENADE

Oxford Terrace, pages 126-127

PROVIDING PUBLIC TRANSPORT AND VEHICULAR ACCESS

Lichfield Street (Core), pages 128-129

CONNECTING CYCLES TO THE SOUTH

Antiqua Street, page 130-131

STREETS ADJACENT TO OPEN SPACES

Cambridge and Park terraces, Rolleston and Hagley avenues, Montreal and Madras streets, pages 132-139

TRAM STREETS

Worcester Boulevard, High and Armagh streets, City Mall and Rolleston Avenue, pages 140-145

SOUTH FRAME

The Greenway, pages 146-147

North-south shared streets, pages 148-151

THE AVENUES

Bealey, Fitzgerald, and Moorhouse Avenue, pages 152-153

Figure 41 Recommended street cross-sections

MAIN STREETS

Colombo and Victoria streets



Key features

- Main routes for walking and cycling
- Significant shopping and business streets
- Link major civic destinations
- Pedestrian-friendly 'maximum 30km/h' streets, except the section of Colombo Street north of Kilmore Street (refer to pages 122-123)
- Public transport accommodated in some sections
- Two-way streets
- Increased urban amenity through new street trees and some rationalisation of on-street parking

Characteristic tree

Colombo Street:

Quercus palustris 'Pin Oak'

Victoria Street:

Acer platanoides 'Norway Maple'

Context

'Main streets' stand out from other streets in the city grid in terms of their location, uses along their length and lively street activity. The uniqueness of these streets helps people to orientate themselves in the city.

Colombo Street is the grid's main north-south axis which leads into the city's main civic place, Cathedral Square. **Victoria Street** breaks the grid diagonally and is a gateway to the city from the north.

As strategic routes into the heart of the city, they have consolidated as major shopping streets with a mix of retail and hospitality at ground level and commercial uses above. They link major civic destinations including Victoria Square, the Convention Centre, Performing Arts and Retail precincts, the Central Library and Cathedral Square. The uses and activities along these main streets will generate significant pedestrian activity.

Colombo Street has three distinctive areas which are represented in different concept cross-sections.

The stretch between Kilmore and Lichfield streets is within the slow Core. It has wider footpaths, cycles and vehicles share the road and on-street car parking is provided on selected locations.

The section south of Lichfield Street is within the slow zone, is a bus route and provides an access route to a number of off-street car parking facilities. This section will have separated cycle lanes in a 'Copenhagen' style. Wider footpaths and/or on-street car parking will be provided only where space is available.

The section north of Kilmore Street is a bus route outside the slow Core and a key cycling route. The cross-section for this area is illustrated on pages 122-123.



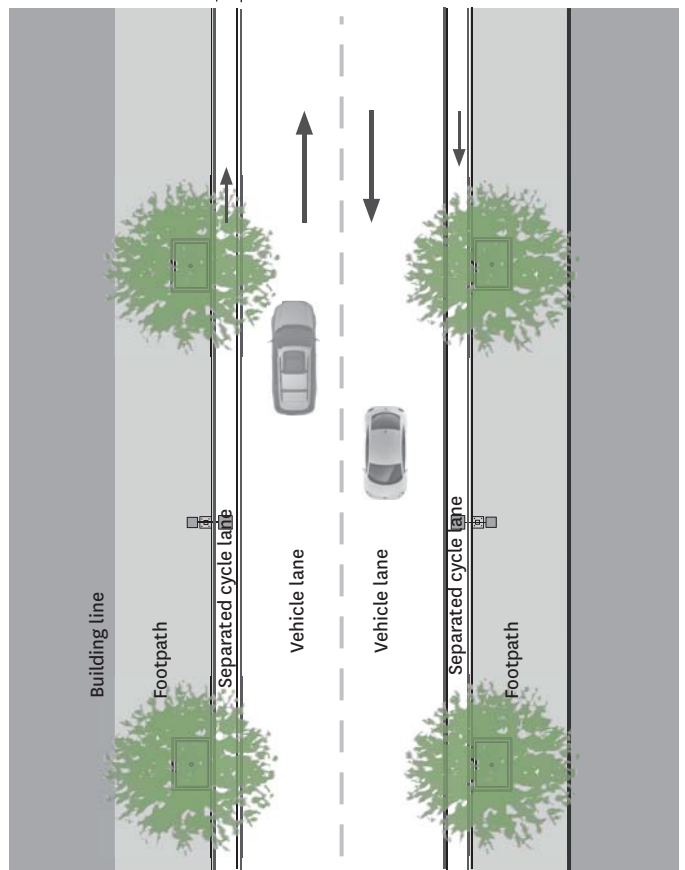
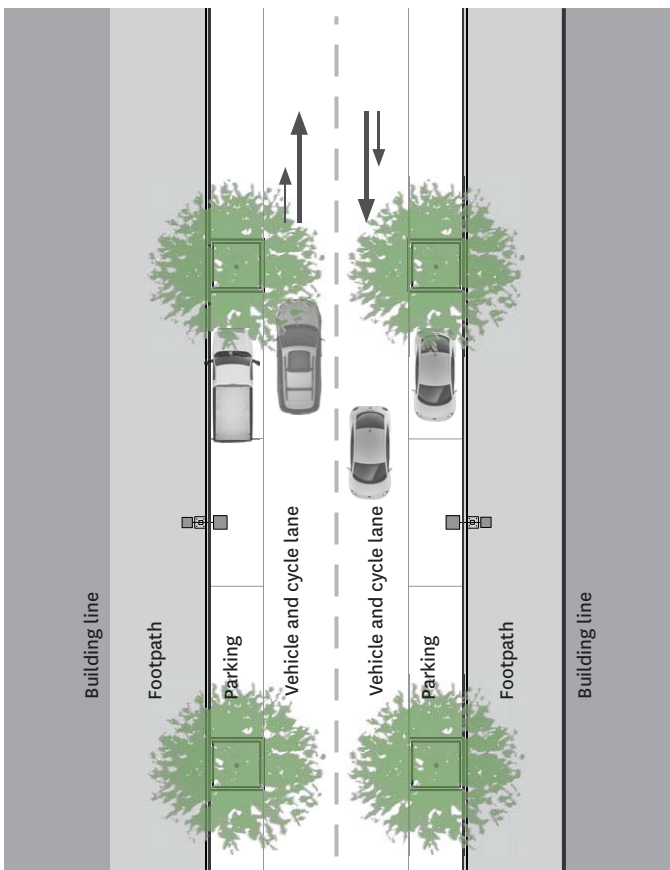
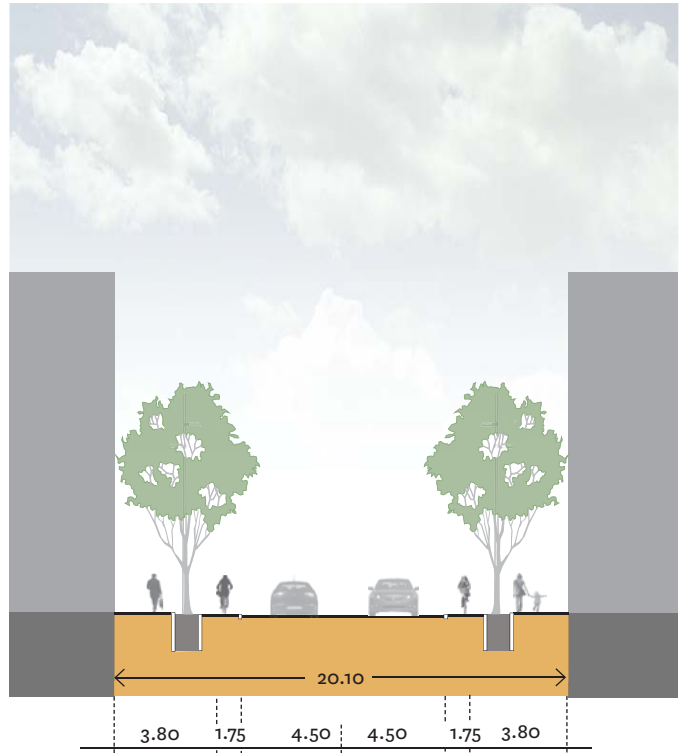
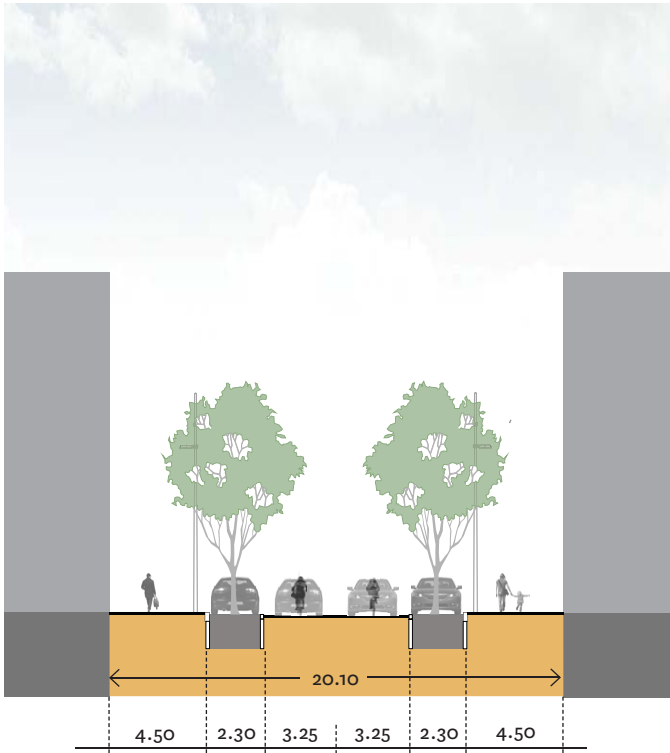


Figure 42 Colombo Street (core)

Figure 43 Colombo Street south of Lichfield Street

MAIN STREETS

Colombo and Victoria streets



Victoria Street is a street lined by new buildings of contemporary architecture. The street is within the maximum 30km/h zone and is also a bus route. The concept cross-section provides for dedicated on-road cycle lanes and allows flexibility to use the amenity zone for either on-street parking or areas for outdoor dining. These uses could alternate depending on the time of the day and the season.



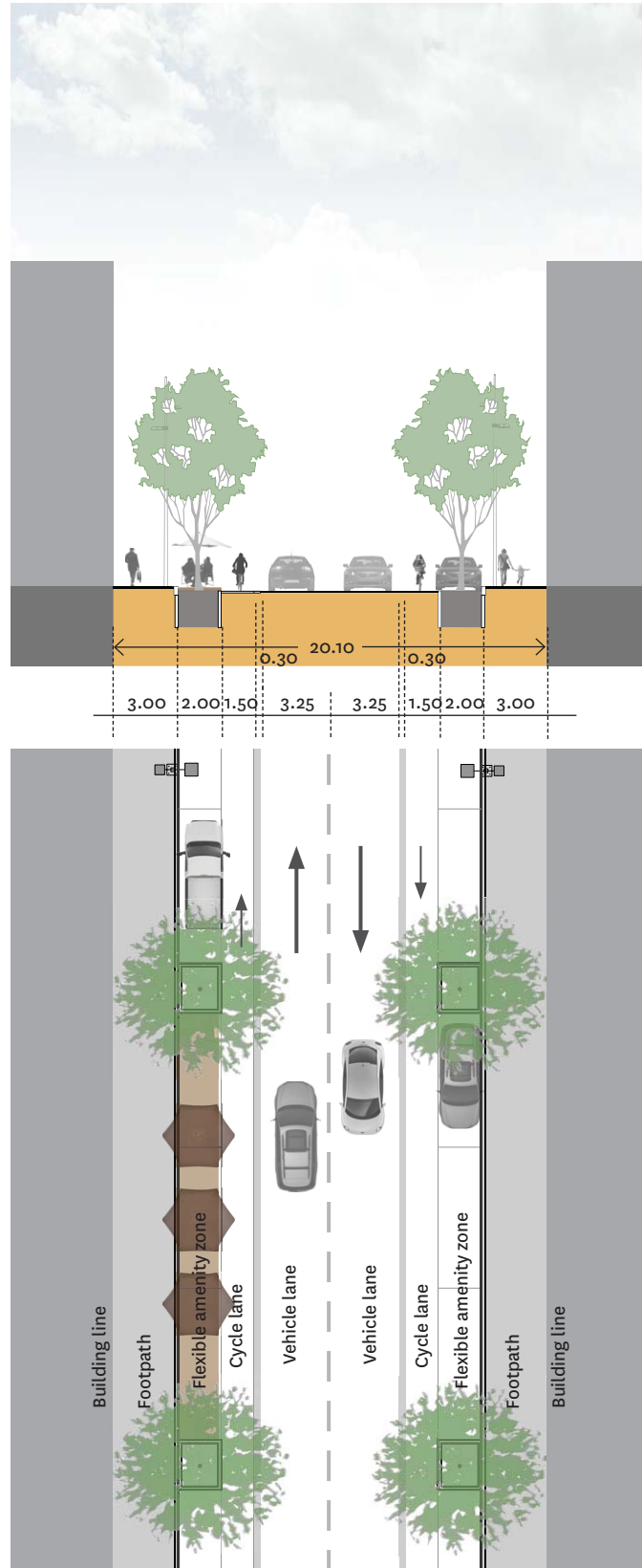
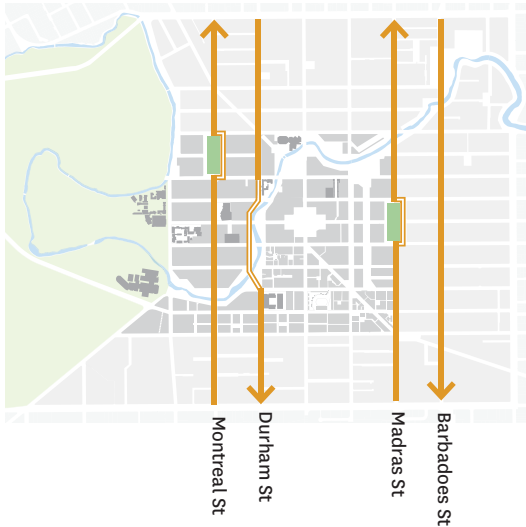


Figure 44 Victoria Street

MOVING NORTH AND SOUTH

Montreal, Durham, Madras and Barbadoes streets



Key features

- Main distributor one-way, north-south streets that connect the four avenues to the local network and distribute road users through the central city
- Key routes for moving vehicles
- Preferred routes for freight servicing and deliveries (outside peak hours)
- On-road cycle lanes on the left side of the street (relative to the direction of traffic)
- Increased urban amenity through new street trees and some rationalisation of on-street parking

Characteristic tree:

Liriodendrum Tulipifera 'Tulip Tree'

Context

The concept for these streets aims to create efficient, functional and effective access routes, especially for general traffic, while enhancing the urban amenity for all users. These north-south streets are focused on moving people driving from the avenues to the local network. They interface with some of the anchor projects and key public spaces in the central city.

Montreal Street., a north-bound route, crosses the South Frame and Health Precinct and defines the east side of Cranmer Square. The cross-section around Cranmer Square varies to integrate this important public space. This variation is illustrated on pages 138-139.

Durham Street enjoys a varied and changing aspect as it moves south-bound. It fronts the main pedestrian and cycle access route to Victoria Square from the northwest at the intersection with Kilmore Street. It then forms the main address for the Provincial Chambers and becomes Cambridge Terrace as it follows Te Papa Ōtākaro/Avon River Precinct to the south. The concept cross-section for Cambridge Terrace is provided on pages 132-133.

The section between Lichfield and Tuam streets will be a two way street to enable easy access to the off-street car park facilities in the Retail Precinct. This section also defines the west boundary of the Justice and Emergency Services Precinct and intersects with the new Promenade of Te Papa Ōtākaro/Avon River Precinct. Information on these anchor projects is provided in Chapter 6.

Madras Street is a north-bound street. It defines the east boundary of the East Frame and Innovation Precinct and the west boundary of the future Stadium. This street provides a key address to the new East Frame residential precinct. Madras Street also provides access to the Transitional Cathedral and defines the east boundary of Latimer Square, where the cross-section varies to integrate this public space. This variation is shown on pages 138-139.

Barbadoes Street is a south bound street. It defines the east boundary of the Stadium Precinct and is the only street in this group that does not enter the slow inner zone (maximum 30km/h).



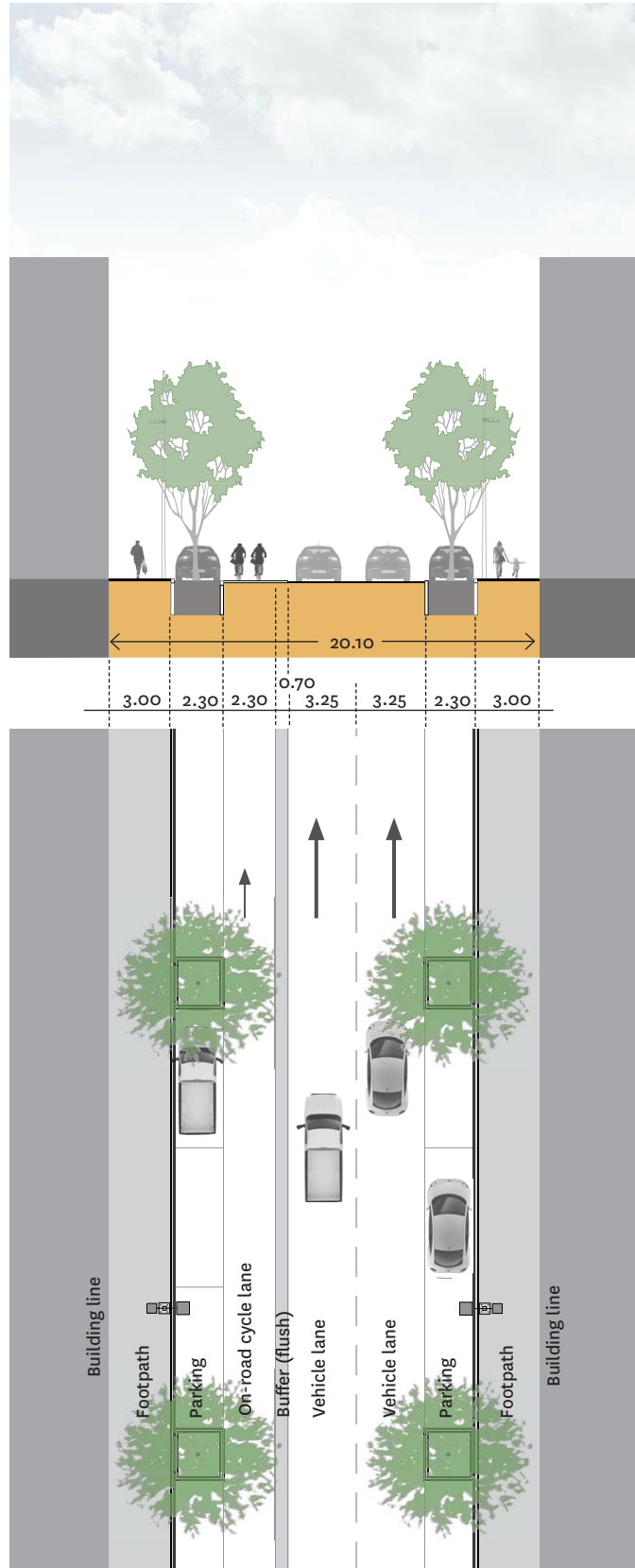
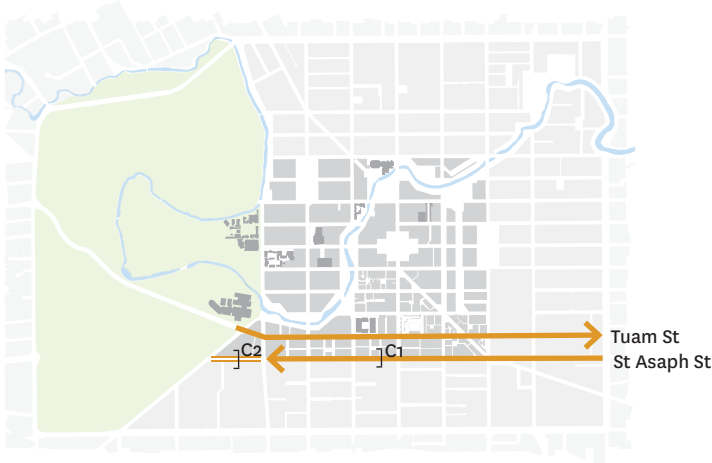


Figure 45 Montreal, Durham, Madras and Barbadoes streets

MOVING EAST AND WEST

Tuam and St Asaph streets



Key features

- Main distributor, one-way, east-west streets
- Key public transport routes
- Separated one-way cycle lanes on the left side of the street (relative to the direction of traffic, between Antigua and High streets) connecting with the major cycleways network outside the central city
- Key routes for general traffic access to the local network
- Pedestrian- and cycle-friendly 'inner zone' (maximum 30km/h) between Hagley Avenue and Madras Street
- Increased urban amenity through new street trees and some rationalisation of on-street parking

Characteristic tree: *Tilia platyphyllos*
 'Lime'

Context

Tuam and St Asaph streets are planned as one-way streets that will accommodate significant traffic flows, key public transport routes and priority cycle connections. They will link public realm areas in the South Frame, the Metro Sports Facility and the Stadium Precinct, providing a green gateway to Hagley Park from the east.

Both streets are proposed to accommodate separated cycle lanes connecting with the wider cycle network to the west via Hagley Park and the south via High Street and Ferry Road. East of High Street, cycle continuity is provided by on-road cycle lanes.

Tuam Street has an essential role in providing high-quality, attractive and inviting access to the busy western corridor bus route into the central city. It flows east-bound, connecting Hagley Park, the Health Precinct, the South Frame and the Justice and Emergency Services Precinct. Tuam Street is the primary entrance from the west to the new Bus Interchange and connects through the heart of the Innovation Precinct to the future Stadium's southern boundary. There will be one super stop located between Hagley Avenue and Antigua Street, where provision has been made to allow for buses travelling west-bound through to Riccarton Road.



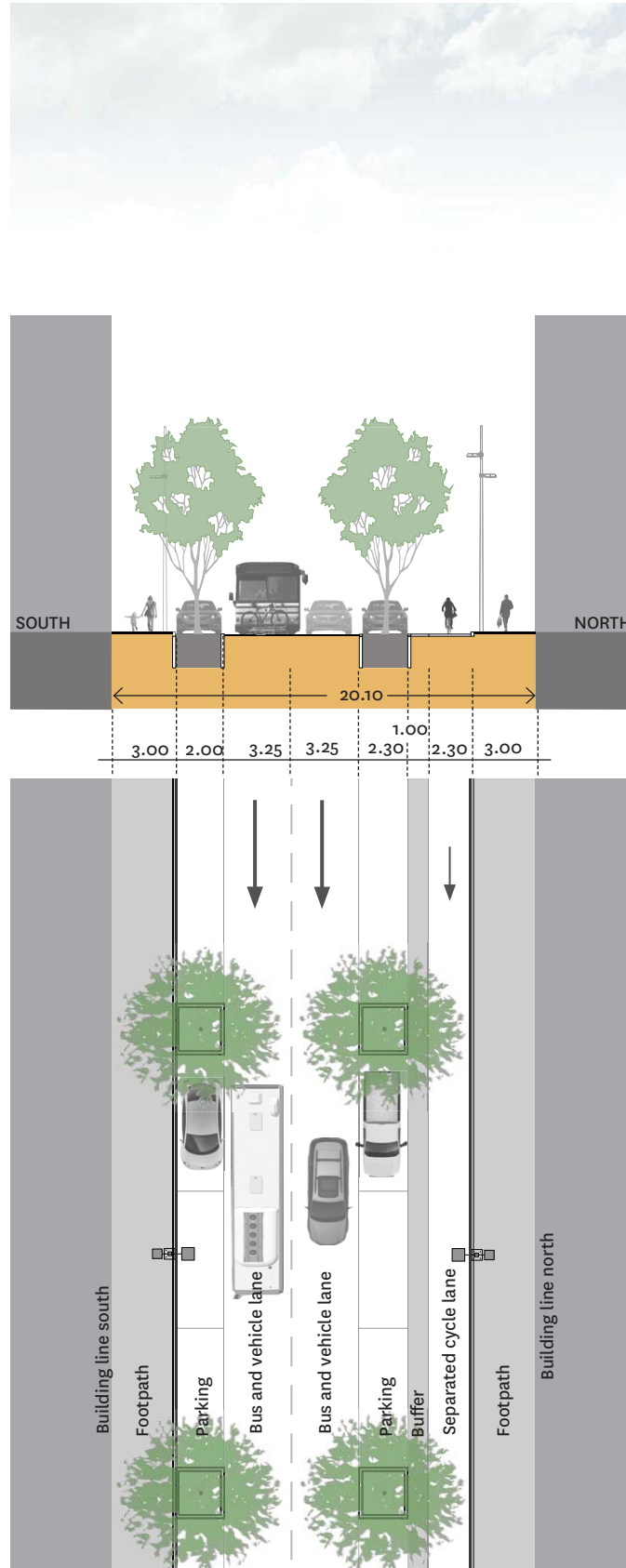
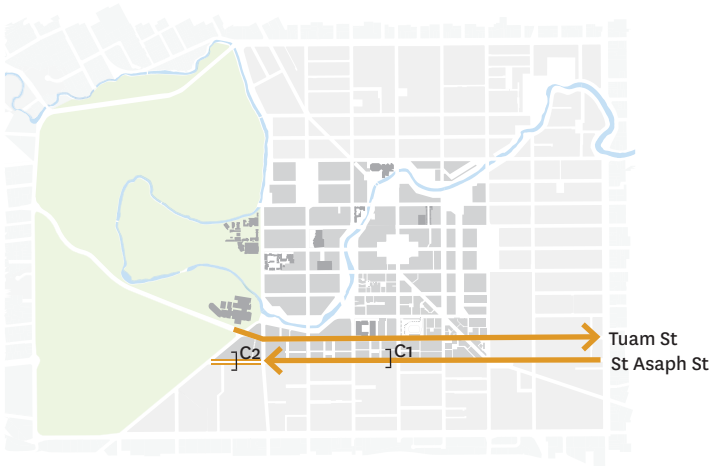


Figure 46 Tuam Street west of High Street

MOVING EAST AND WEST

Tuam and St Asaph streets



St Asaph Street defines the south boundary of the South Frame, including the Health and Innovation precincts. It complements Tuam Street by moving road users westward. It provides the interface between the South Frame and the Health Precinct, and the northern boundary of the Metro Sports Facility. The intersection with High Street creates a key gateway to the city centre and a main access point to the CPIT campus.

Most of St Asaph Street is an over-dimensional route. To address this requirement and provide a separated cycleway, on-street car parking is only provided on the north side of the street. The section of St Asaph between Antigua Street and Hagley Avenue has a shared path on the south side of the street. This section provides a key cycle connection to Hagley Park, Metro Sports Facility and the priority cycle route along Antigua Street.

As part of the South Frame's new public

realm network, there will be a series of north-south connections between Tuam and St Asaph streets in the form of shared streets. The connections and interface between these shared streets and Tuam and St Asaph streets provide a great opportunity to maximise the South Frame's public realm asset. Managing the interface between pedestrians, vehicles and cyclists is very important.



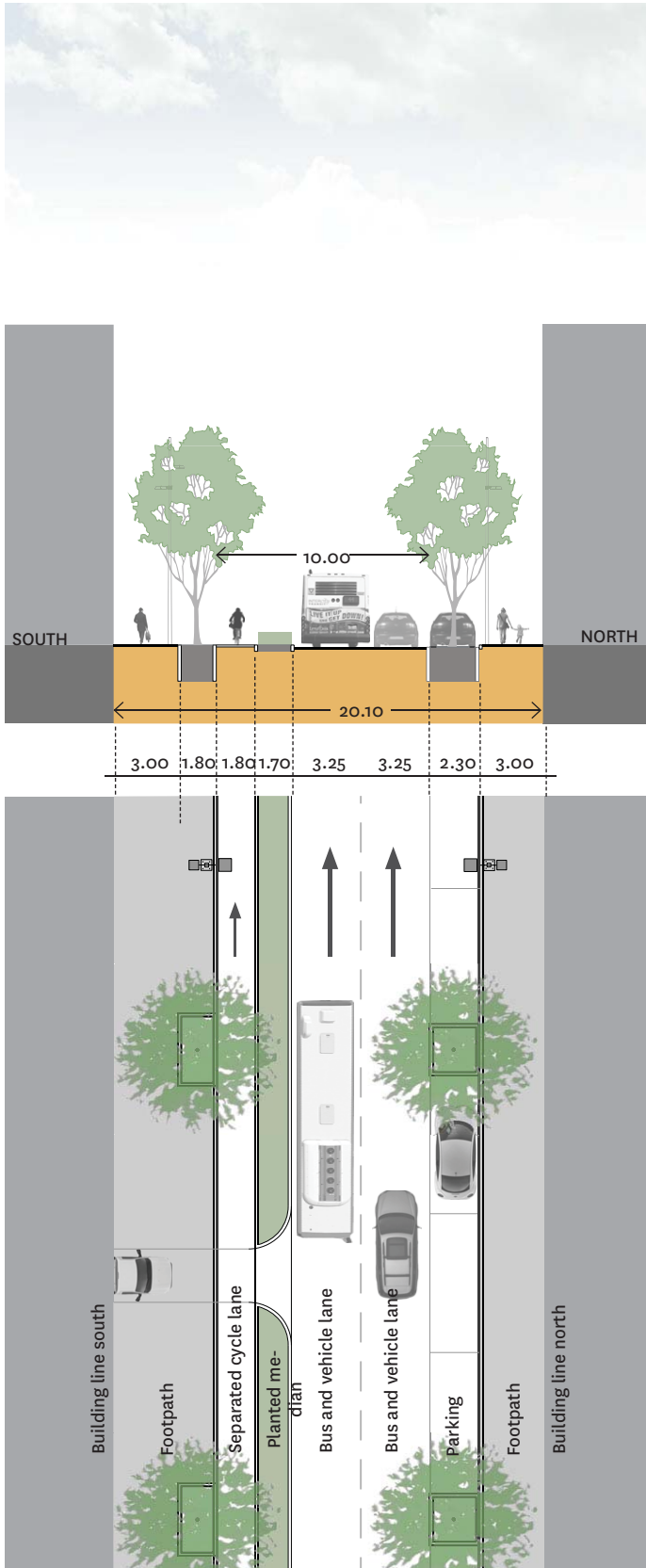


Figure 47 C1- St Asaph Street, west of High Street

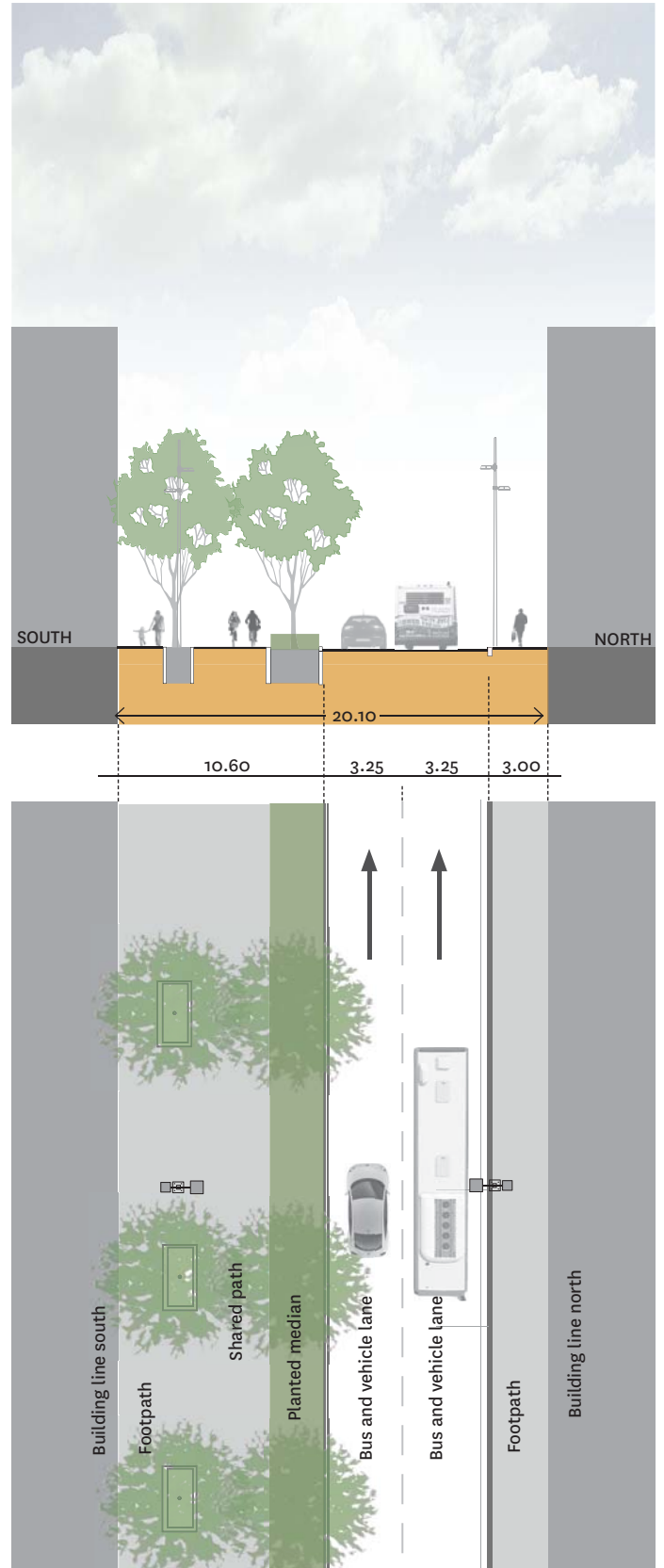


Figure 48 C2- St Asaph Street at Metro Sports Facility

CONNECTING TO THE CYCLEWAY NETWORK

Colombo Street (north), Salisbury Street and Ferry Road



Key features

- Two-way streets
- Cycle priority routes outside the central city low-speed zone, with separated cycle lanes in both directions
- Connect the heart of the city centre with the wider cycleway network to the north, east and west
- Accommodate public transport routes along Colombo Street, Ferry Road and a small section of Salisbury Street
- Colombo Street is a key pedestrian connection to Cathedral Square
- Increased urban amenity through new street trees and some rationalisation of on-street parking

Characteristic trees

Colombo Street: *Quercus palustris*
'Pin Oak'

Salisbury Street: *Tilia platyphyllos*
'Lime'

Ferry Road: existing underground services impede tree planting

Context

Colombo Street is the primary north-south pedestrian and cycling route through the heart of the city. The uses along this section are mainly small-scale commercial, residential and hospitality which contrast with the large civic and retail activity to the south of the corridor. The design concept of the cross-section focuses on integrating separated cycle lanes and on increasing the pedestrian amenity for local land uses.

Salisbury Street connects Hagley Park with Te Papa Ōtākaro/Avon River Precinct and is the main east-west cycle connection in the north of the central city. This street provides access to a range of local hospitality, residential and commercial uses.

The junction with Victoria Street is one of the gateways into the city from the north. Salisbury Street will return to a two-way street and the proposed cycle facilities will be introduced at that time. The new separated cycle lanes will integrate with the improved carriageway of those sections of Salisbury Street that have been repaired since the earthquakes.

Ferry Road provides continuity to the High Street gateway corridor to the southwest. It accommodates key cycle and public transport routes and provides access to the CPIT campus.



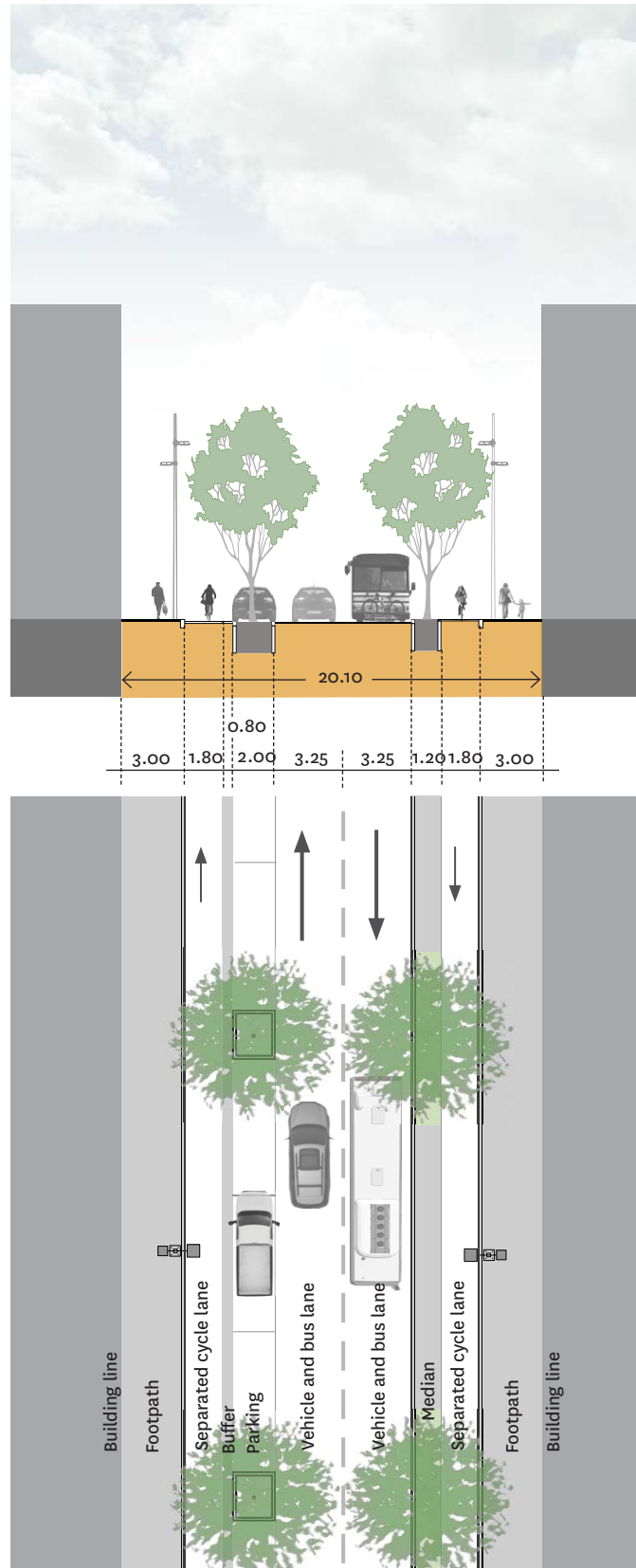
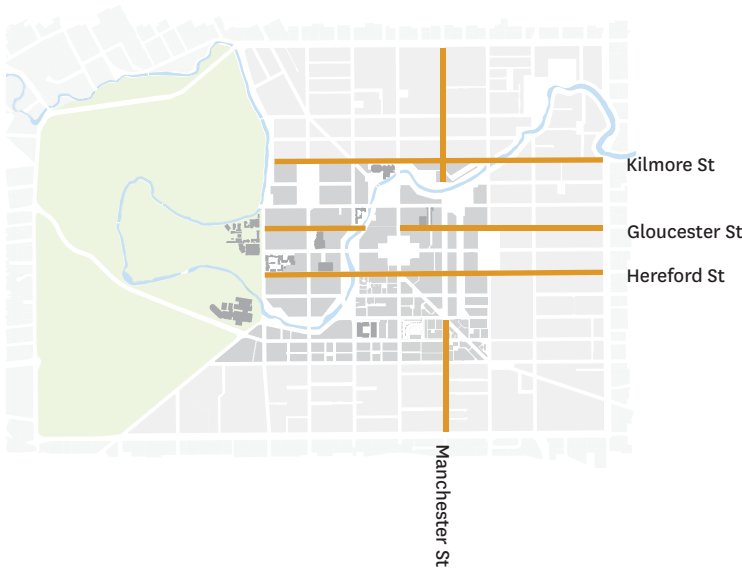


Figure 49 Colombo Street (north), Salisbury Street and Ferry Road

MOVING WITHIN THE CITY

Kilmore, Gloucester and Hereford streets and Manchester Street (outer Core)



Key features

- Two-way streets
- Public transport accommodated in some sections
- Include sections of pedestrian-friendly 'inner zone' slow streets (maximum 30km/h)
- Connect many of the city's cultural, event, retail and residential venues and precincts
- On-road cycle lanes
- Provide vehicular access from the north-south main distributor streets into the finer grain of the city Core
- Increased urban amenity through new street trees and some rationalisation of on-street parking
- Kilmore Street will change to a two-way street

Characteristic trees

- Kilmore Street:** *Tilia platyphyllos* 'Lime'
- Gloucester and Hereford streets:** *Corylus colurna* 'Turkish Hazel'
- Manchester Street:** *Liriodendrum Tulipifera* 'Tulip Tree'

Context

These streets connect established and new areas in the central city including the well-known Botanic Gardens, Canterbury Museum and New Regent Street; the new Te Papa Ōtākaro/Avon River, Retail, Convention Centre and Performing Arts precincts; the future Central Library; and the East Frame residential precinct.

With the range of uses, quality of the amenities and the connectivity these streets offer, pedestrian demands on these spaces will be high. Tourists, city workers, visitors and inner city residents alike will use these streets to move around the city. It is important, therefore, that these streets provide an environment that supports people's enjoyment of the public and private spaces in the city.



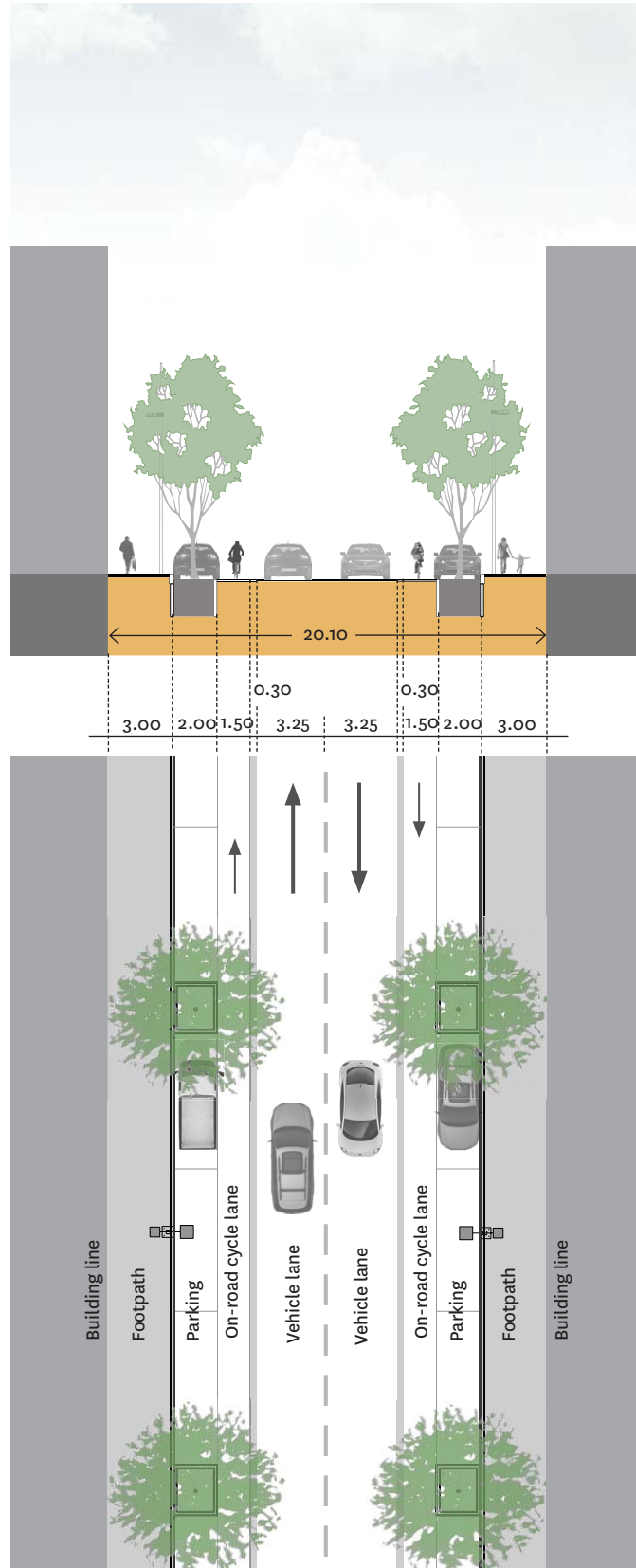


Figure 50 Kilmore, Gloucester and Hereford streets and Manchester Street (outer core)

PUBLIC TRANSPORT ROUTE

Manchester Street



Key features

- Bus priority route into the city with priority bus lanes and a super stop located between Gloucester and Hereford streets
- Tree-lined, two-way street
- Widened road corridor
- Wide footpaths
- Pedestrian-friendly 30km/h 'inner zone' between Kilmore and St Asaph streets

Characteristic tree: *Liriodendrum Tulipifera* 'Tulip Tree'

Context

Manchester Street is the main north-south public transport corridor in the central city. The section between Armagh and Lichfield streets will be widened to create a distinctive tree-lined street. Buses will have priority lanes and signal pre-emption and pedestrians will enjoy wide footpaths

Manchester Street is within the slow core and provides a main address to the new East Frame residential precinct.

The concept cross-section for Manchester Street will have slight variations from block to block to integrate specific site conditions and movement requirements. A new bus super stop will be located between Gloucester and Hereford streets, with easy access to Worcester Boulevard, a main east-west pedestrian and cycling route.



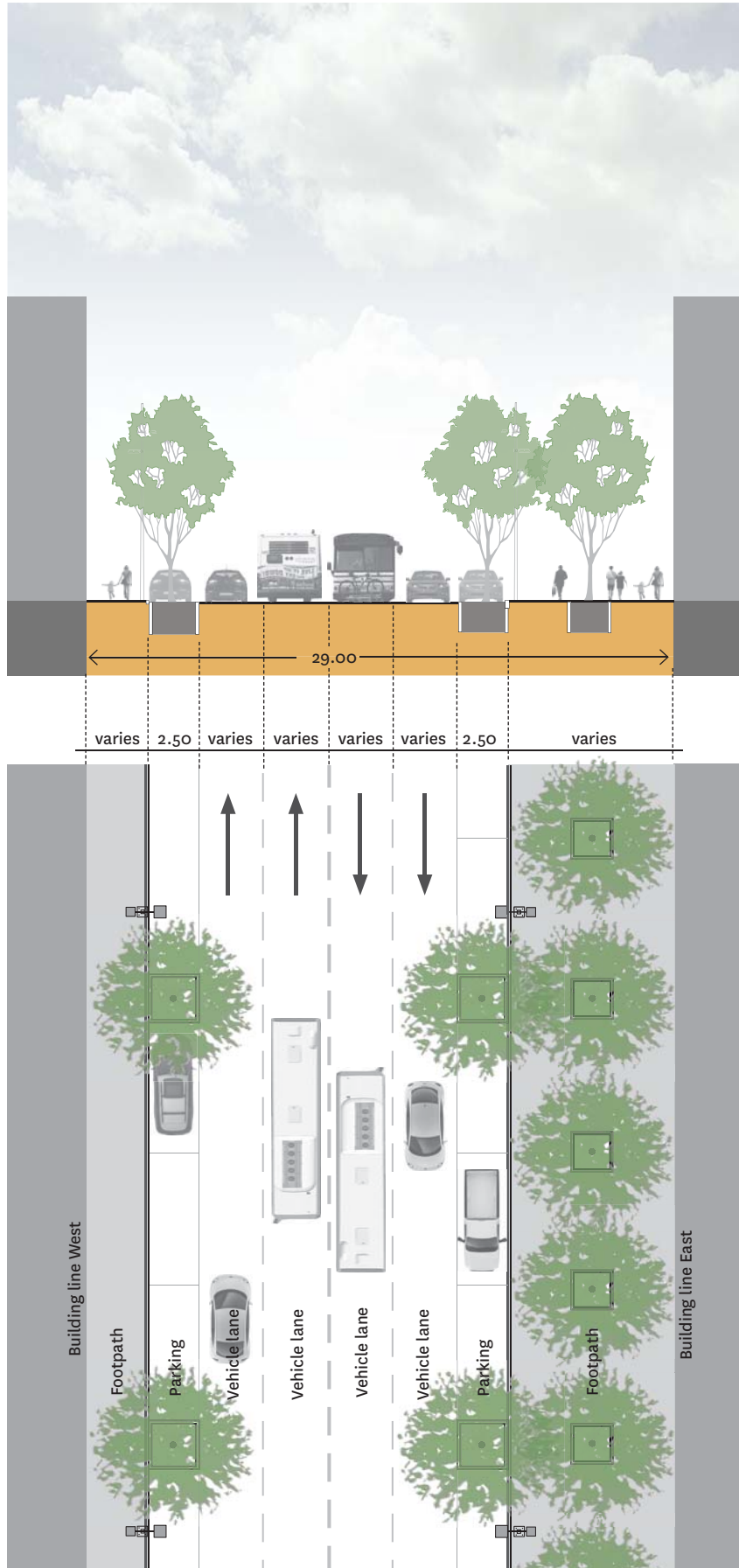


Figure 51 Manchester Street (inner zone)

THE ŌTĀKARO/AVON RIVER PROMENADE

Oxford Terrace



Key Features

- Provides a new interface between the Ōtākaro/Avon River corridor and the city
- One-way, shared street
- Designed for slow speed (maximum 10km/h) to enable pedestrian and cycling priority
- River-side section of the tram route between Worcester Street and Cashel Mall
- Increased urban amenity through new street trees and rain gardens
- Distinctive pavement treatments and materials
- Access for private and servicing vehicles provided

Characteristic trees: *Acer rubrum* 'Red Maple' and *Sophora microphylla* 'Kōwhai'

Context

The Ōtākaro/Avon River Promenade follows the existing alignment of Oxford Terrace and is one of the main components of the design for Te Papa Ōtākaro/Avon River Precinct. The Promenade will redefine the interface between the city and the east side of the river corridor in the form of a shared street. The design for this street emphasises the amenity of the river and prioritises pedestrians and cyclists while maintaining vehicular access. It will offer an attractive, slow-speed environment to enjoy the river's open space along with the retail, cafés, bars and activities on the urban edge of the corridor.

The Promenade is one of the few streets in the central city that meanders alongside the river, off the grid, and enjoys a significant number of established trees. These features will be strengthened and complemented by the Promenade design, new trees, rain gardens and special pavement treatments. The overall design aims to consolidate the Ōtākaro/Avon River as a real asset, attraction and draw-card for the city.

The Promenade will provide a main address to the Convention Centre and Retail precincts and to the Health Precinct in the South Frame. Detailed information on Te Papa Ōtākaro/Avon River Precinct is provided in Chapter 6.



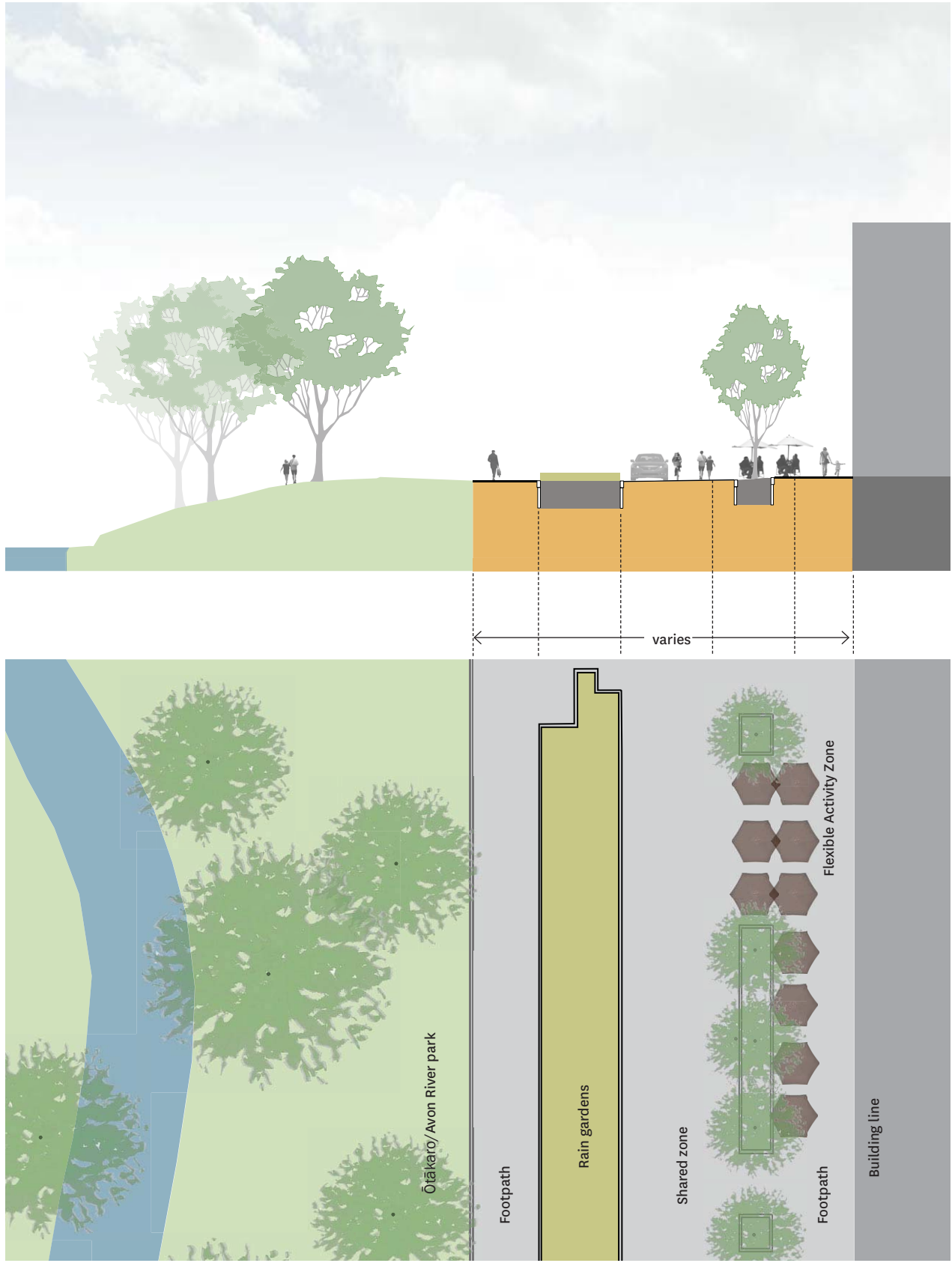


Figure 52 Oxford Terrace - The Ōtākaro/Avon River Promenade

PROVIDING PUBLIC TRANSPORT AND VEHICULAR ACCESS

Lichfield Street (core)



Key features

- Two-way, east–west street within the pedestrian-friendly ‘inner zone’
- Main bus access route from Manchester Street into the new Bus Interchange
- Accommodates main entrances and public space in front of the Bus Interchange and the Justice and Emergency Services Precinct
- Key pedestrian connections across and along the street
- Wide footpath on the south side of the street
- A ‘Barnes Dance’ pedestrian crossing at the Colombo Street intersection
- Integrates location for taxi rank and intercity coaches in front of the Bus Interchange
- Vehicle access route to parking facilities servicing the Retail and Justice and Emergency Services precincts

- For safety, there are no designated cycle lanes on this street
- Increased urban amenity through new street trees
- Some on-street parking on selected locations, together with coach stops and taxi ranks adjacent to the Bus Interchange

Characteristic tree: *Tilia platyphyllos* ‘Lime’

Context

Lichfield Street defines significant street frontages for the new Bus Interchange, the Retail, Justice and Emergency Services and Innovation precincts, and the East Frame. The street is bookended to the west by Te Papa Ōtākaro/Avon River Precinct and to the east by the future Stadium.

Lichfield Street is a key access route to the new Bus Interchange and to a number of off-street parking buildings servicing the Retail and Justice and Emergency Services precincts. Accordingly, the concept cross-section seeks to provide for vehicular

access while ensuring bus movements are unimpeded.

The south side of the street has a widened footpath which provides a congregating space for commuters using the Bus Interchange and visitors to SOL Square and the Justice and Emergency Services Precinct.

A pedestrian priority crossing at the intersection with Colombo Street, along with other secondary crossing points, enables easy pedestrian access to the Retail Precinct to the north of the street.

A taxi rank and the intercity coach pick-up and drop-off points are located in front of the Bus Interchange, making the most of the north-facing frontage.

The section east of Manchester Street provides access to the new East Frame residential precinct and the Innovation Precinct. This section accommodates the tram route and therefore a specific design will need to be prepared to accommodate this feature.



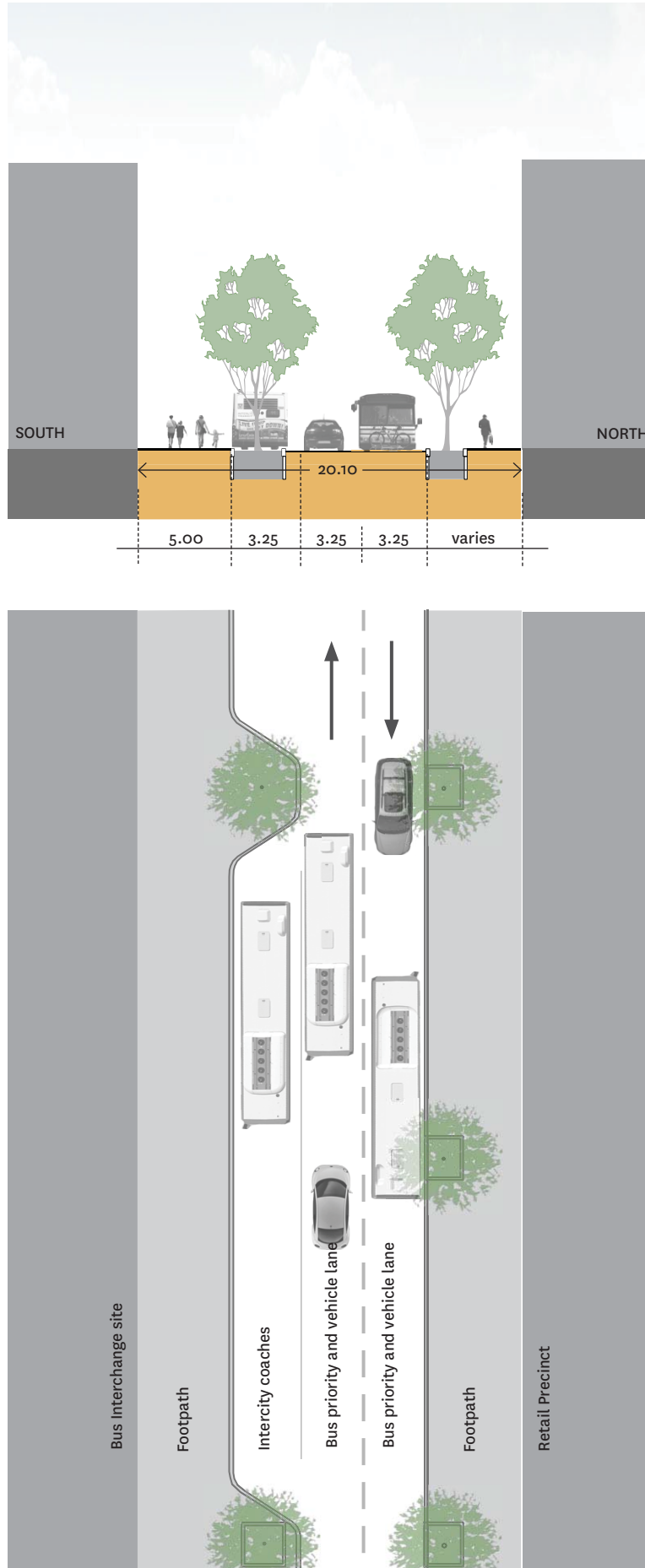


Figure 53 Lichfield Street at Bus Interchange

CONNECTING CYCLES TO THE SOUTH

Antigua Street

(between St Asaph Street and Moorhouse Avenue)



Key features

- Two-way street
- Priority cycle street with separated cycle lanes in both directions
- On-street parallel parking integrated with street trees, including provision for coach drop-off for the Metro Sports Facility
- Key frontage for the Metro Sports Facility
- Wide footpath in front of the Metro Sports Facility
- Increased urban amenity through new street trees

Characteristic tree: *Knightsia excelsa*, 'Rewarewa'

Context

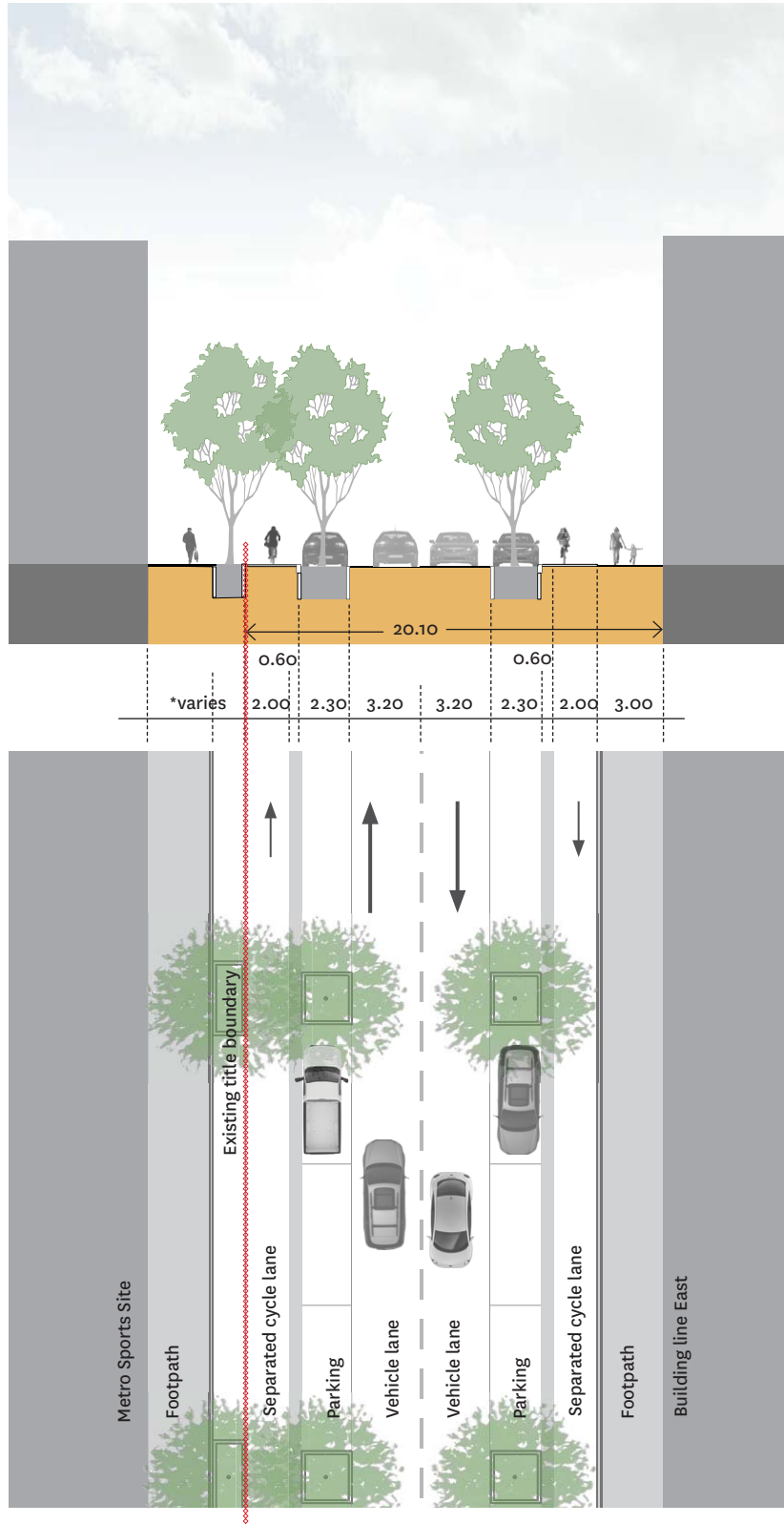
Antigua Street will provide a green frontage to the east boundary of the new Metro Sports Facility.

This street is a priority cycleway linking the cycleway along Park Terrace and the Ōtākaro/Avon River to the north with the major cycleway south of Moorhouse Avenue.

The Metro Sports Facility building along this frontage is set back from the title boundary, allowing for additional space for pedestrians and street trees. The streetscape concept integrates with the proposed landscaped areas in front of the building.

The streetscape and amenity of the street provide a fitting and attractive address for this world-class facility.





*Minimum 4.5m (incl tree) if space permits adjacent to Metro Sports.
 Minimum 3.0m footpath (excl tree) if space is limited adjacent to Metro Sport.

Figure 54 Antigua Street at Metro Sports

STREETS ADJACENT TO OPEN SPACES

Cambridge and Park terraces, Rolleston and Hagley avenues, and Montreal and Madras streets



The cross-sections in this group are streets adjacent to or connecting key green public open spaces; however they differ in their layouts and space allocations

They provide visual and physical integration between the street network and key green public spaces

They are major contributors to the delivery of 'a green city', a key theme guiding the Recovery Plan

Cambridge Terrace interface with the Ōtākaro/Avon River

Characteristic tree: *Liriodendrum Tulipifera* 'Tulip Tree'

This one-way, south-bound main distributor street is adjacent to the Ōtākaro/Avon River.

Between Cashel and Gloucester streets there is a two-way separated cycleway integrated into the design for Te Papa

Ōtākaro/Avon River Precinct. This cycle lane continues to the north (between Gloucester and Armagh streets) as a shared path in front of the Provincial Chambers. No on-road cycle lane is provided along this section.

Street trees and on-street parking are accommodated along the west side of the street.



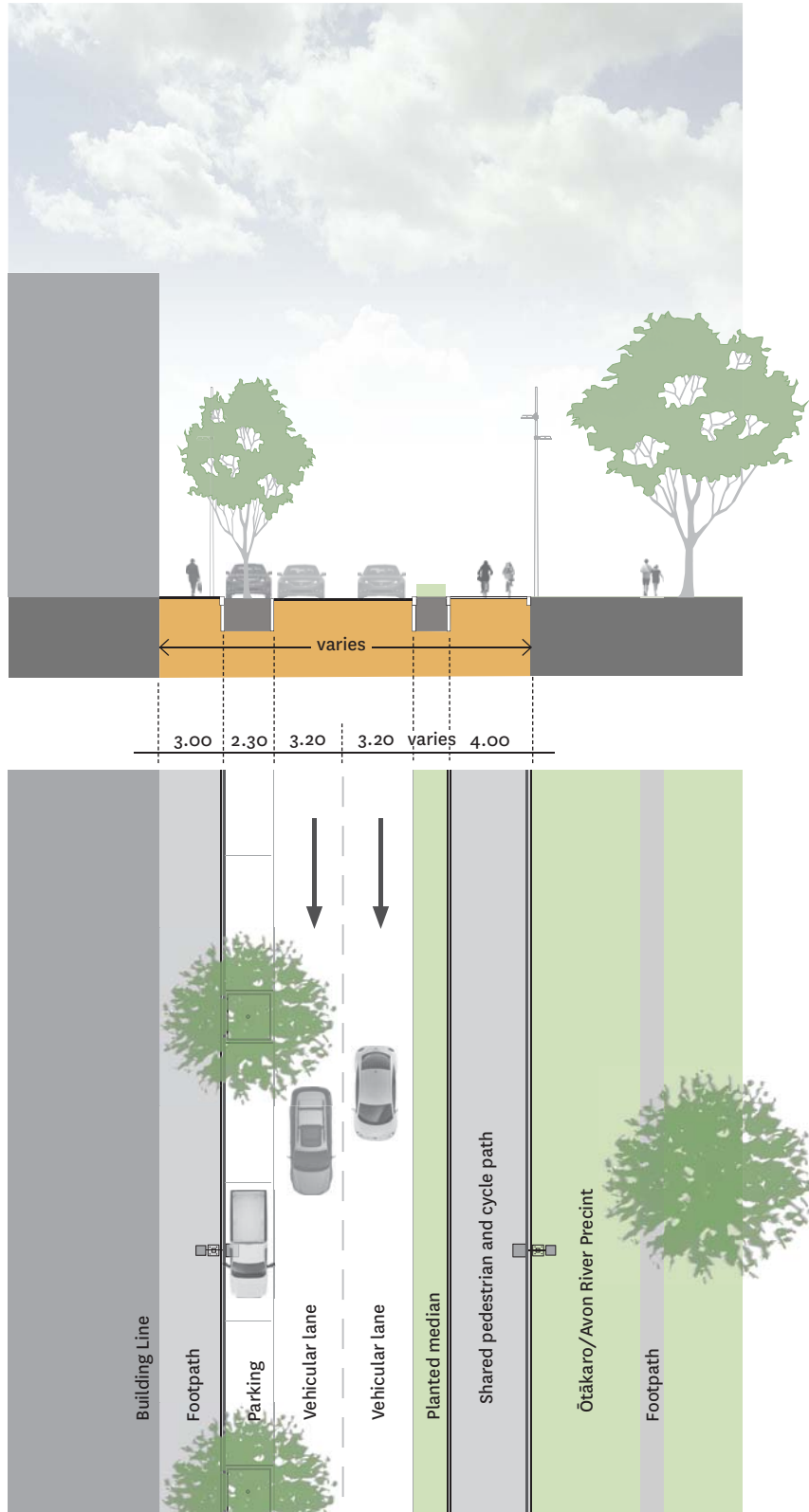


Figure 55 Cambridge Terrace

STREETS ADJACENT TO OPEN SPACES

Cambridge and Park terraces, Rolleston and Hagley avenues, and Montreal and Madras streets



Park Terrace and Rolleston and Hagley avenues interface with Hagley Park

These streets define the east boundary of Hagley Park.

Park Terrace

- Park Terrace is a two-way local access street.
- This cycle priority street has separated, bi-directional cycle lanes on its west side.
- Street trees are integrated with on-street parking on both sides.
- The footpath is integrated into the park area.



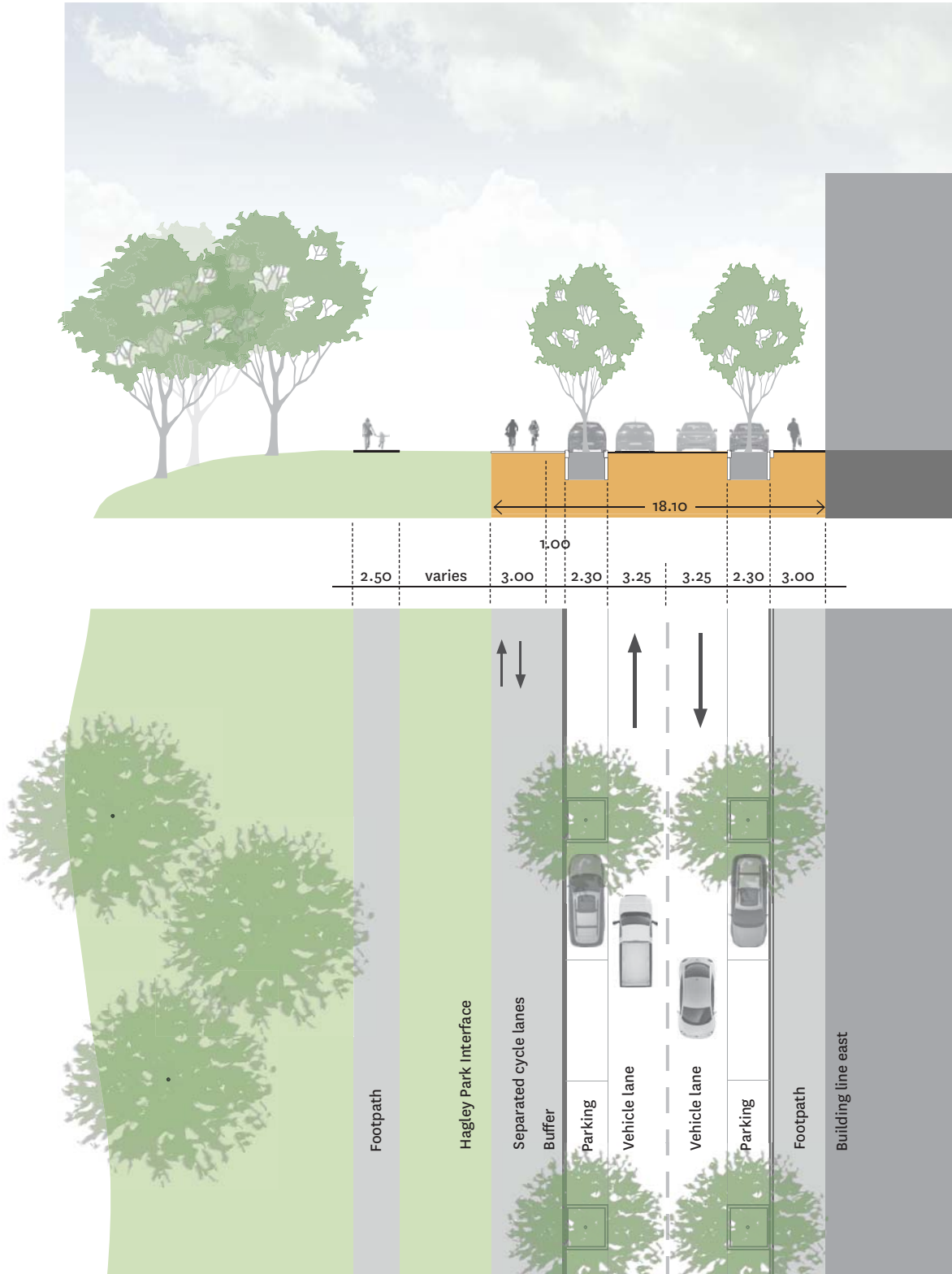


Figure 56 Park Terrace north of Armagh Street

STREETS ADJACENT TO OPEN SPACES

Cambridge and Park terraces, Rolleston and Hagley avenues, and Montreal and Madras streets



Rolleston Avenue

Rolleston Avenue is the continuation of Park Terrace from Armagh Street to the Ōtākaro/Avon River.

This street requires a tailored design to accommodate the existing tram tracks and space requirements for the operation of tourist coaches. In addition, the design should integrate the space in front of the Canterbury Museum and the Botanical Gardens. The concept design is to be developed.

Hagley Avenue

Hagley Avenue has two main sections.

The section between Selwyn Street and Moorhouse Avenue:

- is a one way, south-bound, local access street
- accommodates on-street car parking, angled on the west side and parallel on the east side
- integrates new street trees with on-street parking on both sides.

The section between Tuam and Selwyn streets is:

- a two-way street
- a key bus route.

A widened shared path for cycling and walking will be provided within Hagley Park, parallel to Hagley Avenue, between Moorhouse Avenue and Tuam Street.



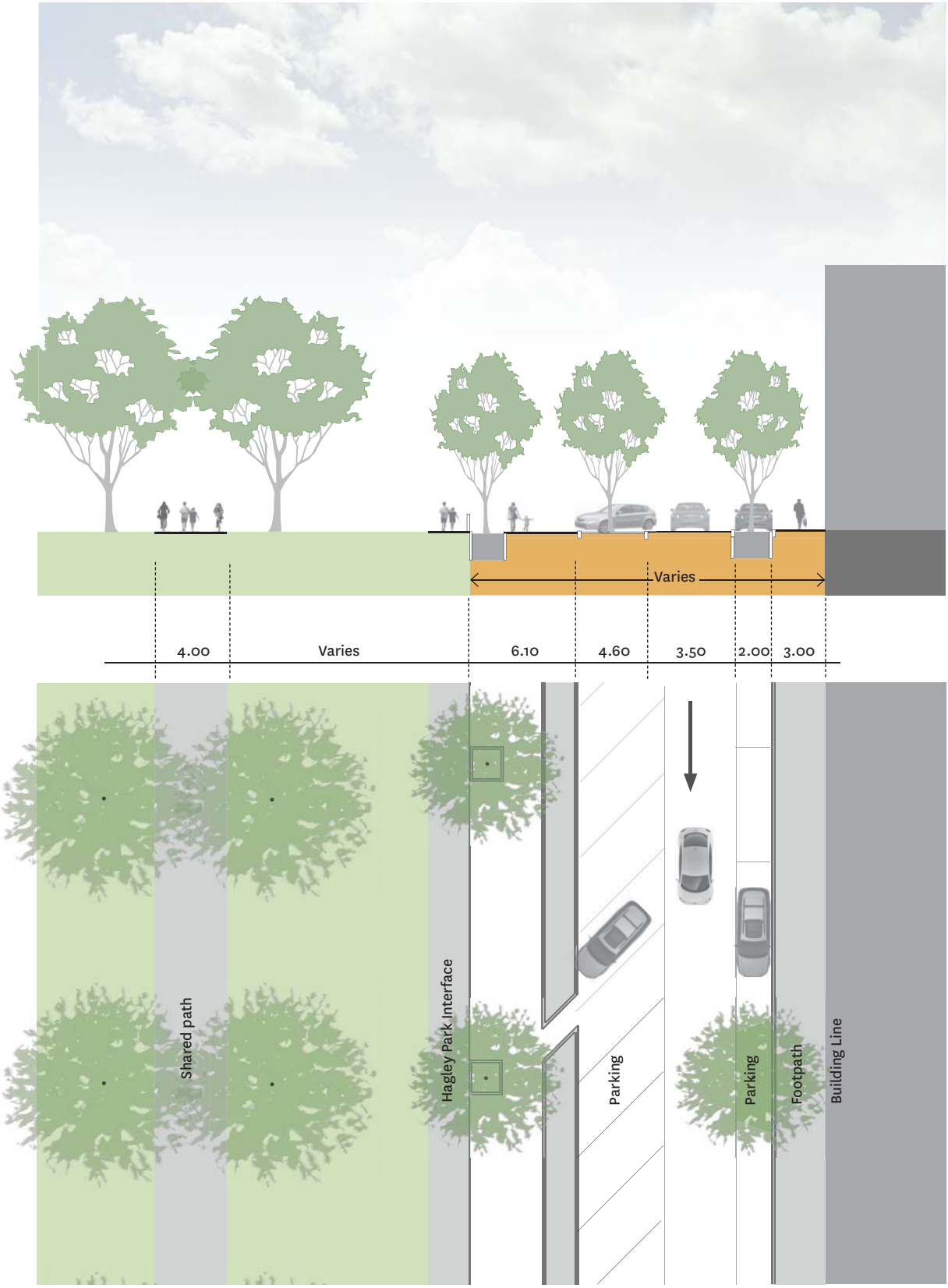


Figure 57 Hagley Avenue - South of Selwyn Street

STREETS ADJACENT TO OPEN SPACES

Cambridge and Park terraces, Rolleston and Hagley avenues, and Montreal and Madras streets



Latimer and Cranmer squares

Cranmer and Latimer squares are bounded by main distributor streets to the east and local access streets to the west.

Latimer and Cranmer squares interface with Montreal and Madras streets.

Features of this boundary are:

- one-way, north-bound, main distributor streets
- on-street parallel parking to both sides
- new landscaping along the eastern footpath, which extends the visual boundary of the squares
- shared path and landscaped strip to the west side.

West boundary of Latimer and Cranmer squares

Features of this boundary are:

- two-way local access streets
- street trees integrated with on-street parking;
- parallel parking along built edge and right-angled parking along park edge
- no designated on-street cycle lane.



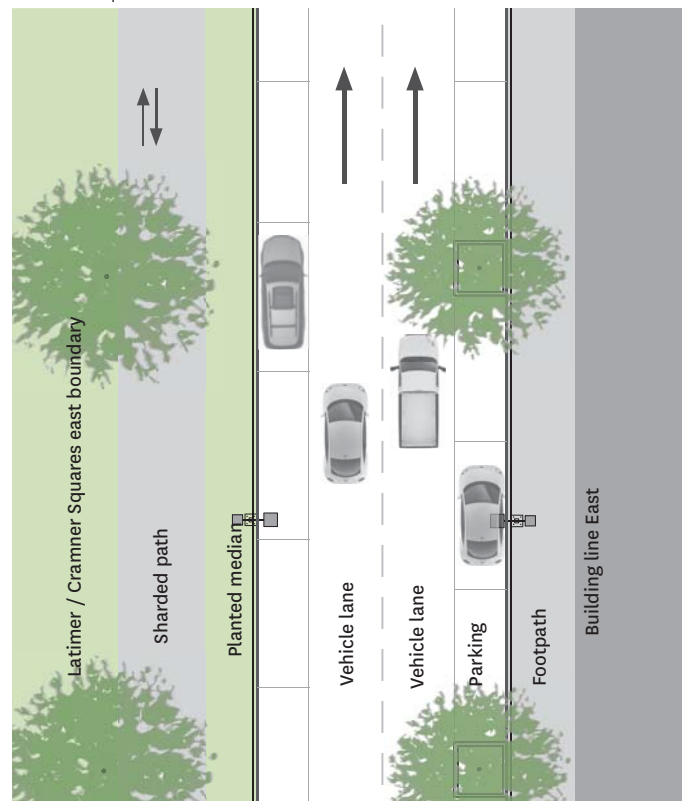
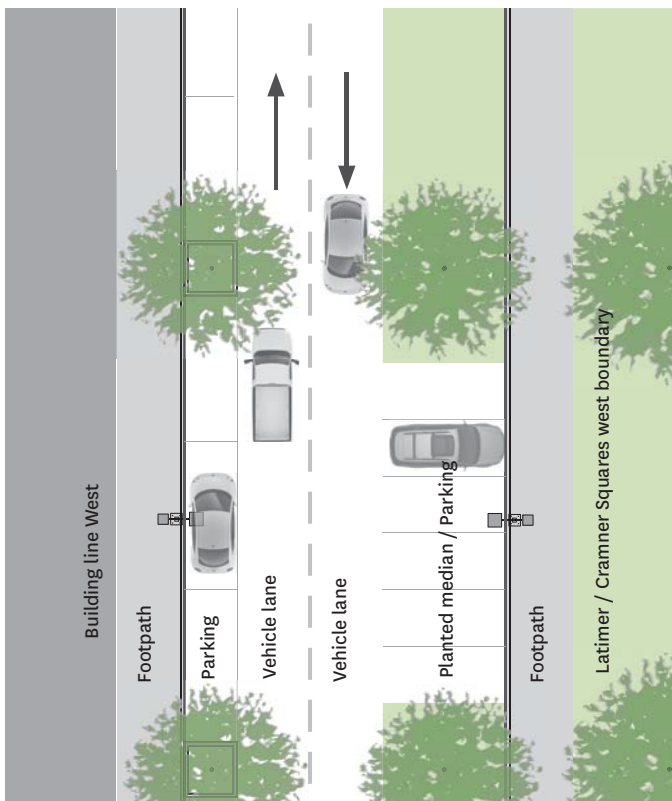
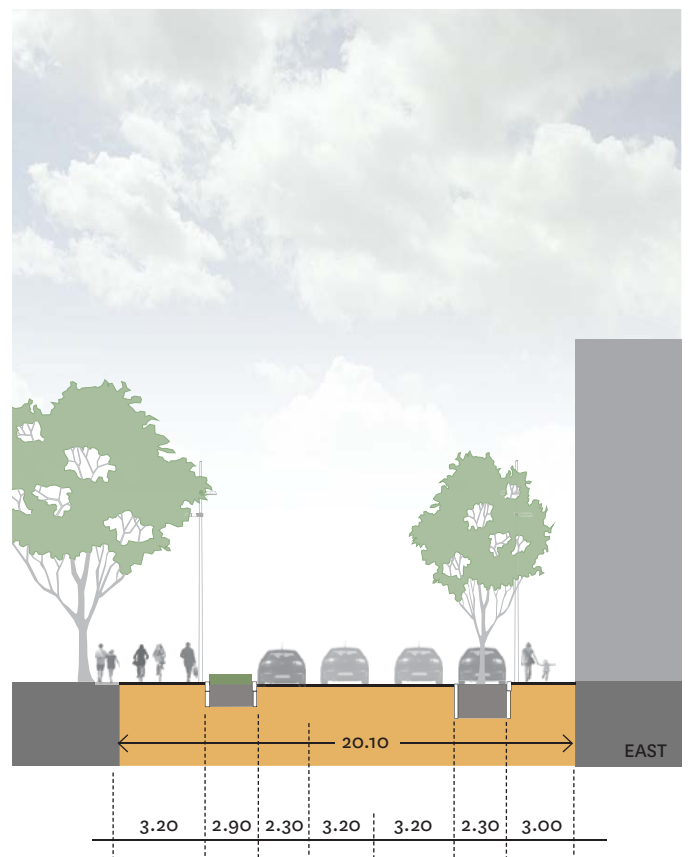
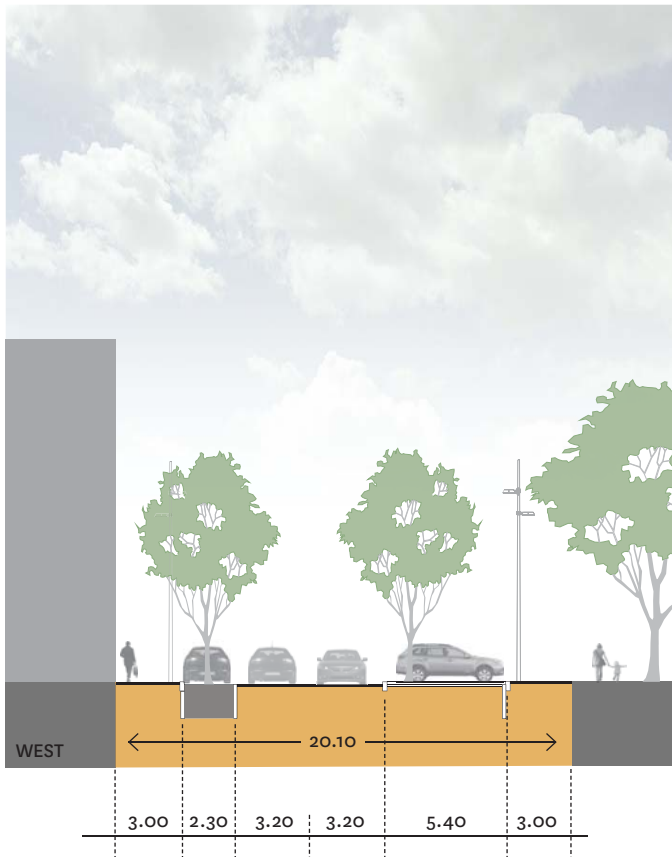
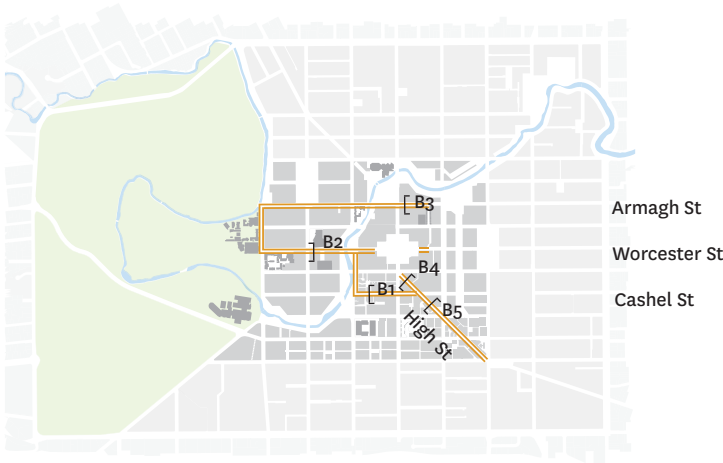


Figure 58 Latimer and Cranmer squares - west boundary

Figure 59 Latimer and Cranmer squares - east boundary (Montreal and Barbadoes streets)

TRAM STREETS

Worcester Boulevard (west), High Street, Armagh Street, City Mall, Rolleston Avenue



A standard concept cross-section for central city streets that accommodate a tram route is not applicable because often the alignment of the tram tracks varies within the block and from block to block. These streets therefore require customised designs to integrate the varying tram alignment and respond to specific site conditions. The illustrations in this section show some of the existing configuration of tram streets.

General key features

- Within the pedestrian-friendly, slow (maximum 30km/h) 'inner zone'; tram operates at a slower speed of 6km/h
- Tourist routes
- A variety of roles and functions as identified in the Accessible City Road User Hierarchy Plan (page 81)
- Worcester Boulevard, High Street and City Mall are key walking routes; Armagh Street (west) is a local access street

Context

Tram streets differ in their roles in the street network, but all benefit from the character and charm the tram brings to the public realm.

The tram route connects a series of streets, open spaces and anchor projects including the Botanic Gardens, Canterbury Museum, Arts Centre, the Ōtākaro/Avon River, Cathedral Square, New Regent Street, and the Performing Arts and Convention Centre precincts.

In general, tram streets should:

- celebrate the trams and related infrastructure as assets for the street and the city
- integrate tram infrastructure to create safe, attractive and functional streets
- accommodate a clear zone of a minimum of 2 metres from the centre of tracks.

City Mall (Cashel Street between Oxford Terrace and High Street)

Characteristic tree: *Acer rubrum columnare* 'Upright Red Maple'

- City Mall is a pedestrian priority street (refer to Chapter 4 for the characteristics of this type of street).
- As the central spine of the Retail Precinct, it connects a new network of laneways and courtyards.
- It is bookended by Te Papa Ōtākaro/Avon River Precinct and the Bridge of Remembrance to the west and the future Stadium Precinct to the east.
- The illustrated cross-section shows the existing configuration.



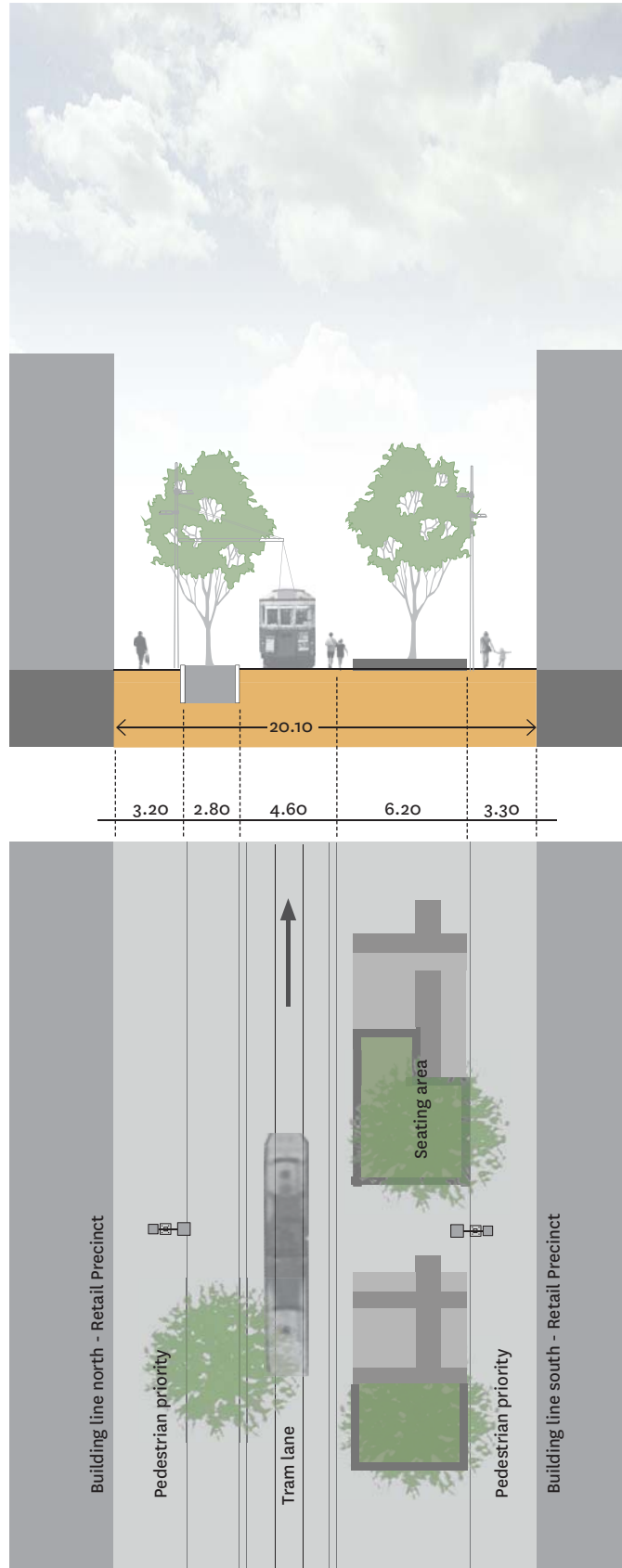
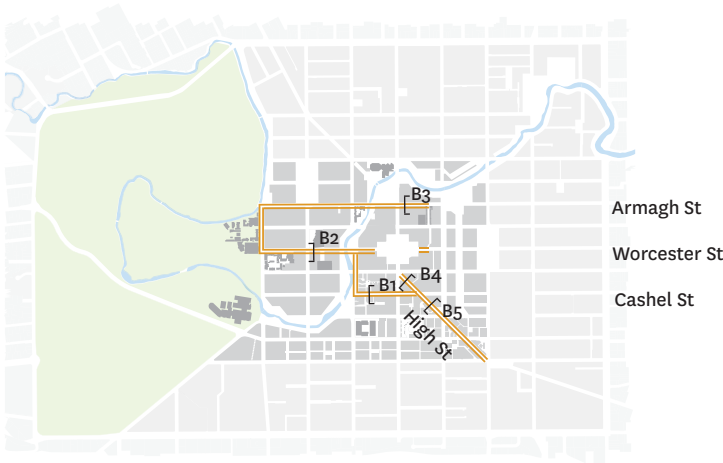


Figure 60 B1 - Existing cross-section City Mall

TRAM STREETS

Worcester Boulevard (west), High Street, Armagh Street, City Mall, Rolleston Avenue



Worcester Boulevard

Characteristic tree:

Tilia platyphyllos 'Lime'

Worcester Boulevard is the main east-west axis of the city grid. This civic spine links Cathedral Square to Latimer Square; the East Frame to the east of the city; and Te Papa Ōtākaro/Avon River Precinct, Council offices, the Art Gallery, the Arts Centre and the Canterbury Museum to the west of the city.

- It is a slow street and key pedestrian route.
- It provides a key cycling connection to the major cycleway network outside the central city.
- The section west of Cathedral Square is one-way, east-bound. This section is in a relatively good state and changes to its layout are unlikely in the short term. A mechanism to allow cyclist to ride westwards will be investigated.
- The illustrated cross-section shows the existing configuration.

Armagh Street

Characteristic tree:

Corylus colurna 'Turkish Hazel'

- Armagh Street is a local access street.
- It connects the anchor projects of East Frame and the Performing Arts, Convention Centre and Te Papa Ōtākaro/Avon River precincts.
- Should provide a green corridor between the green spaces of the Family Playground, Victoria Square, Cranmer Square and Hagley Park
- The cross-section on this page shows the potential to provide a wider footpath in the north-facing frontage of the future Performing Arts Precinct.



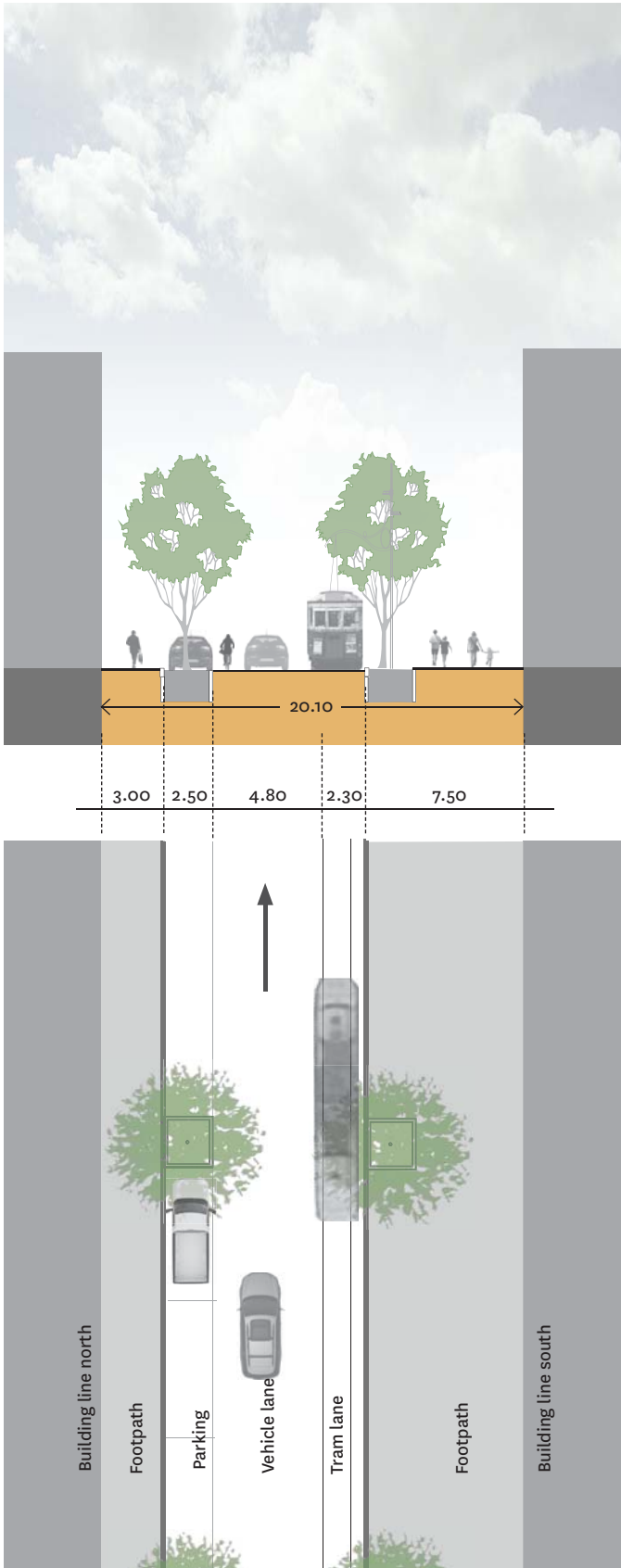


Figure 61 B2- Existing cross-section Worcester Boulevard

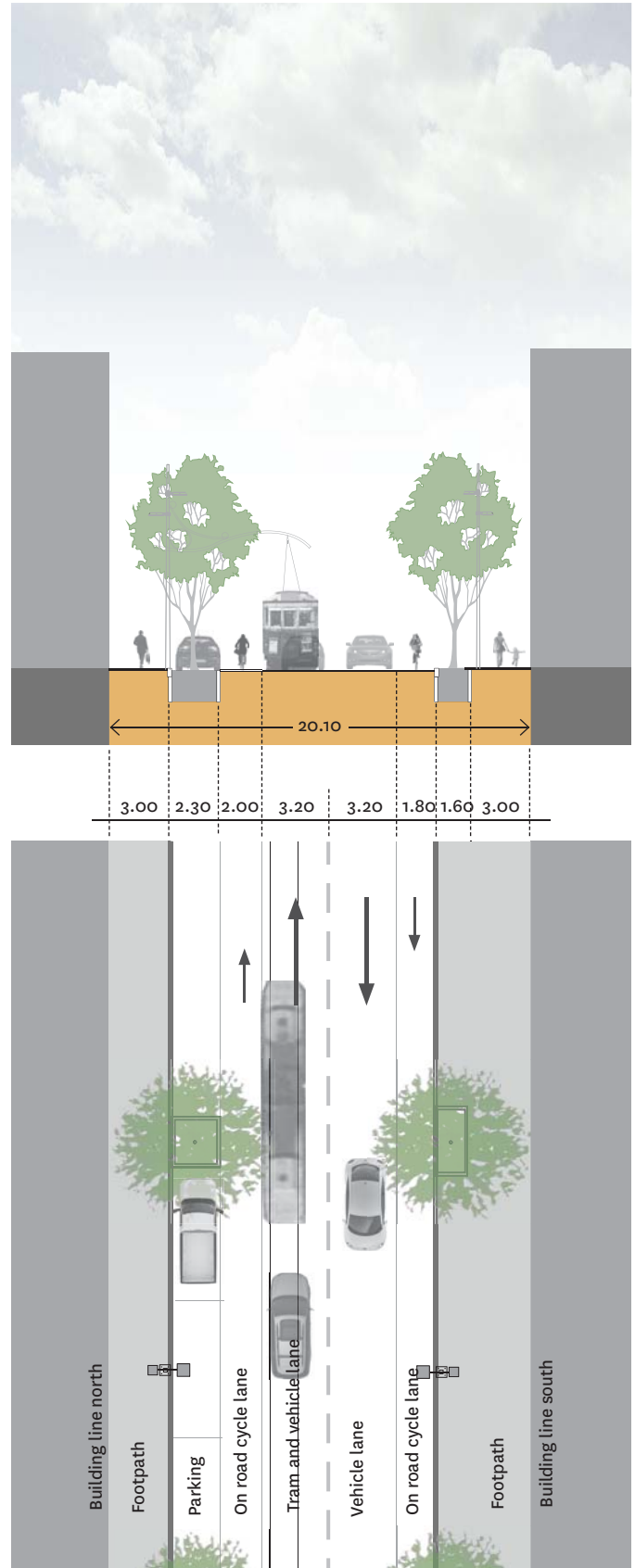
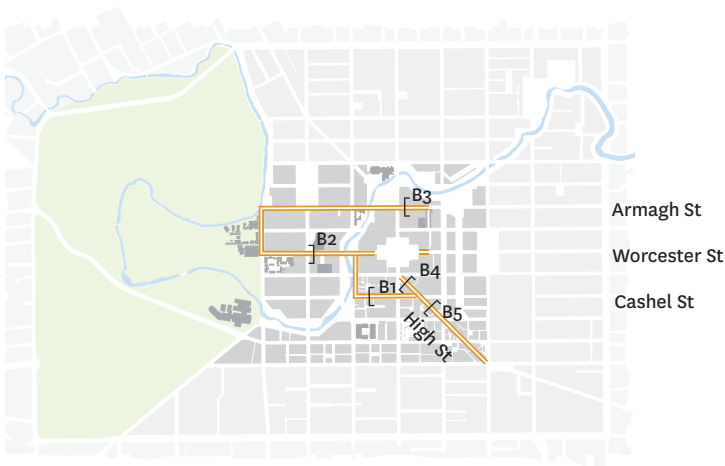


Figure 62 B3 - Proposed cross-section Armagh Street east of Colombo Street

TRAM STREETS

Worcester Boulevard (west), High Street, Armagh Street, City Mall, Rolleston Avenue



High Street

Characteristic tree: *Quercus robur fastigiata* 'Upright English Oak'

- High Street is a key walking and cycling street.
- It is a pedestrian priority street between Hereford and Cashel Streets (refer to Chapter 4 for the characteristics of this type of street).
- It is a traditional shopping destination.
- Its diagonal alignment breaks the city grid and provides a civic spine to the Innovation Precinct.
- Originally established to connect the city to the port, it is a gateway street.
- The view to the south frames the Port Hills.
- It is bookended to the south by the CPIT campus.
- The illustrated cross-sections show the existing configuration.

Other tram streets

Oxford Terrace: refer to page 126

Lichfield Street: refer to page 128

Rolleston Avenue: refer to page 136



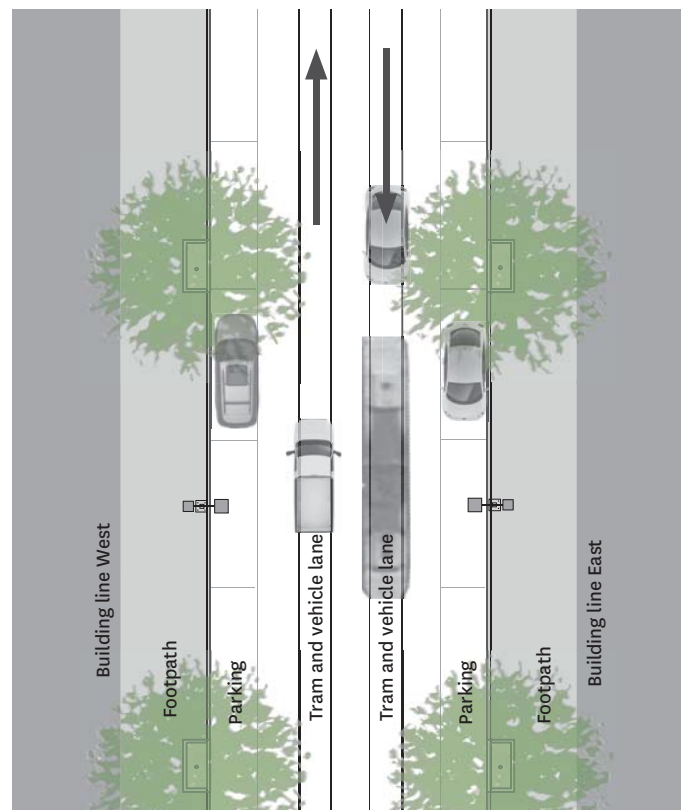
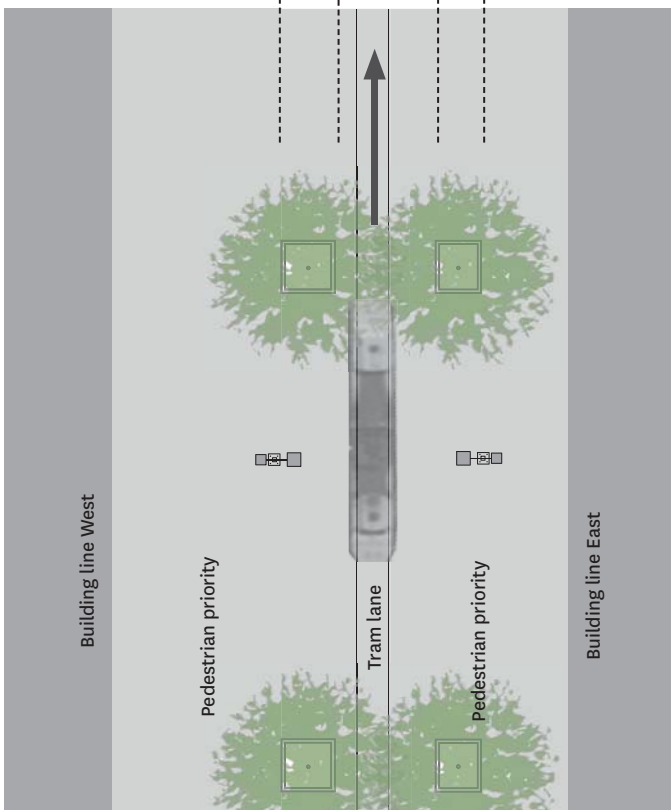
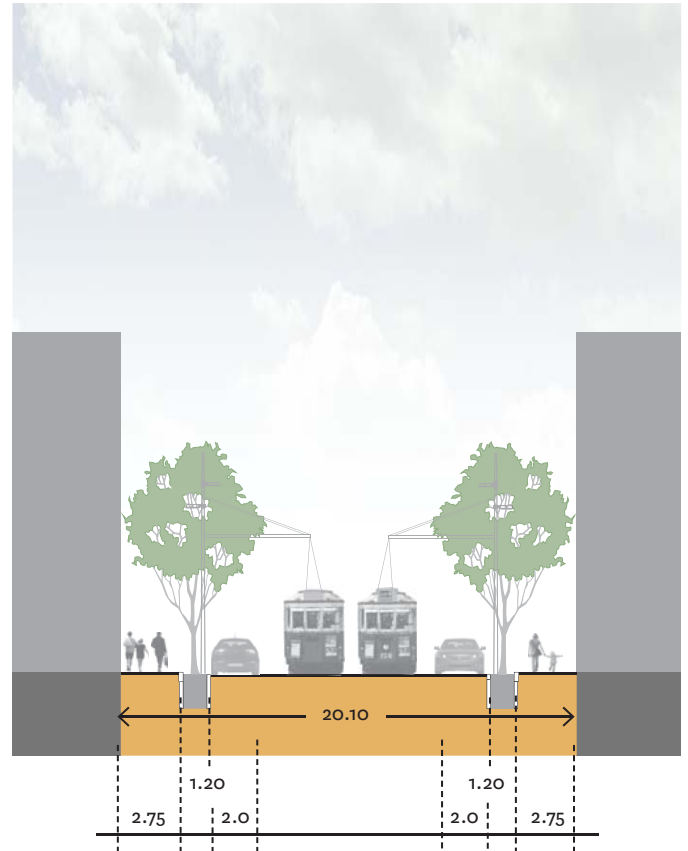
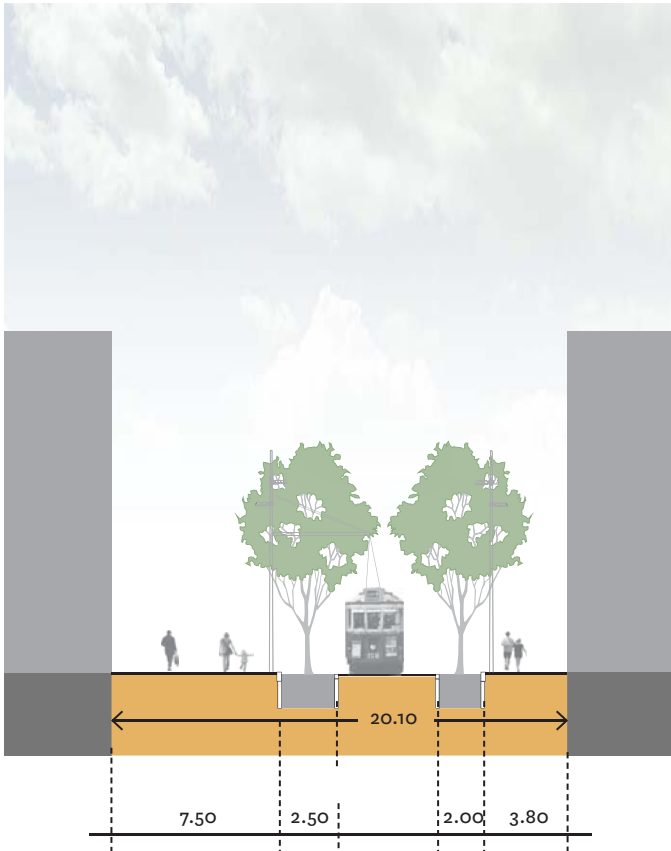


Figure 63 B4- Existing cross-section High St north of City Mall

Figure 64 B5 - Existing cross-section High St south of Tuam Street

SOUTH FRAME

The Greenway



Key features

- New mid-block east-west pedestrian priority or shared streets (refer to page 72 for description of this street type)
- Generously landscaped corridor
- 9 to 11 metres wide

Context

The Greenway is a core component of the new public realm network to be delivered in the South Frame. It will provide an east west green corridor along the South Frame between the Innovation and Health Precincts. The Greenway will provide for onward connections to Hagley Park, Te Papa Ōtākaro Avon River Precinct and the East Frame.

The layout of the Greenway will vary from block to block to reflect each of the block's distinctive features. The cross-section in Figure 65 provides an example of how the corridor may be laid out. The elements that will provide cohesiveness to this entire corridor include:

- a design language and material palette of an industrial aesthetic, referencing the East Frame industrial tradition

- use of horizontal and vertical landscaping elements to emphasise the green character of the corridor
- integrated seating and lighting that accentuate the longitudinal nature of the space
- kerb build-outs at intersections with north-south streets to ease crossing
- active building frontages and courtyards fronting the corridor. Guidance on creating high quality building frontages is provided on pages 54-57



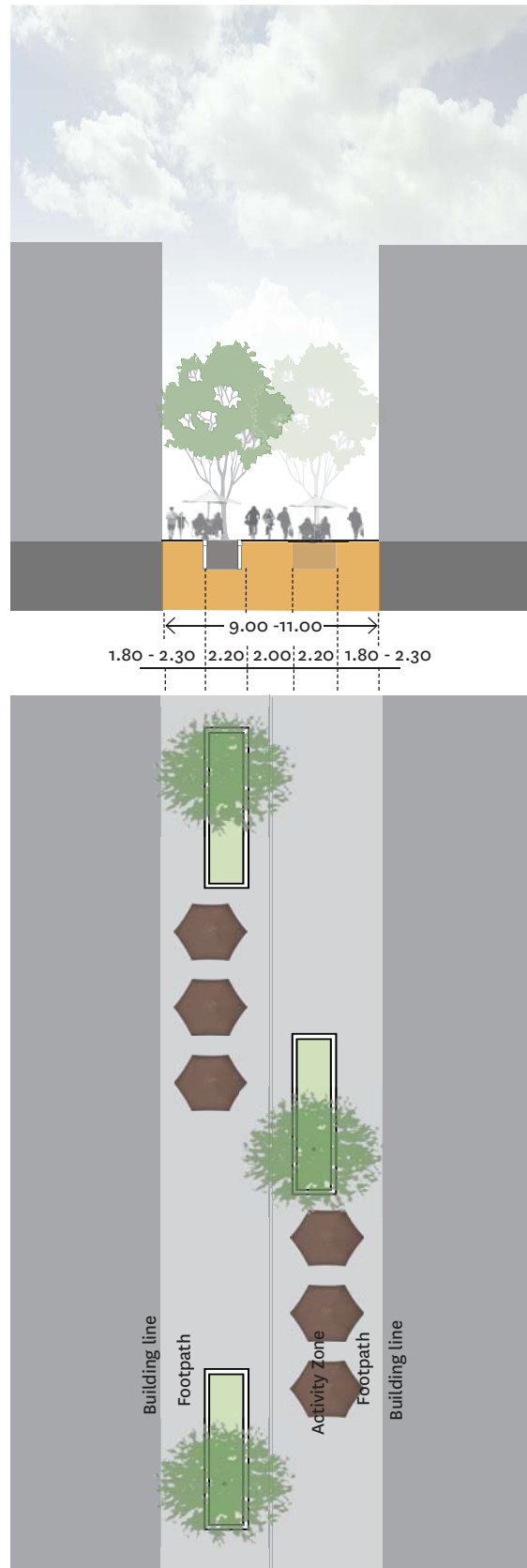


Figure 65 South Frame - Greenway

SOUTH FRAME

South Frame shared streets



Key features

- New mid-block north-south shared streets (refer to page 72 for description of this street type)
- Narrow streets, between 10.5-12.5metres wide.
- Provide integrated seating and landscape strips on either sides of the street corridor
- Parallel parking located within the landscape strips

Context

The shared streets in the South Frame are new north-south streets between Tuam and St Asaph Streets. They will improve permeability and access to the South Frame blocks and provide access to the Greenway. Design elements common to these streets are:

- continuity to the material palette of industrial aesthetic used in the Greenway
- integrated spill-out zones for cafes and other street activities
- designed to give way and prioritise the 'east-west' movement along the Greenway
- intersection design maintain east bound traffic flow along Tuam and St Asaph streets
- well-defined building corners that contribute to the definition of the street and its character. Visibility and safety at the corners is provided through glazed treatments. Building splays should be avoided.



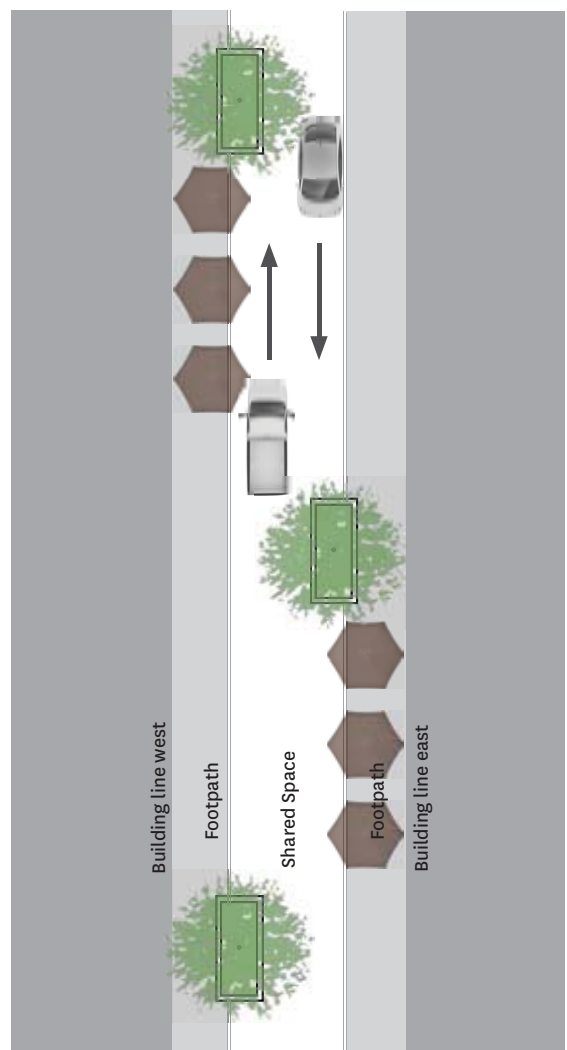
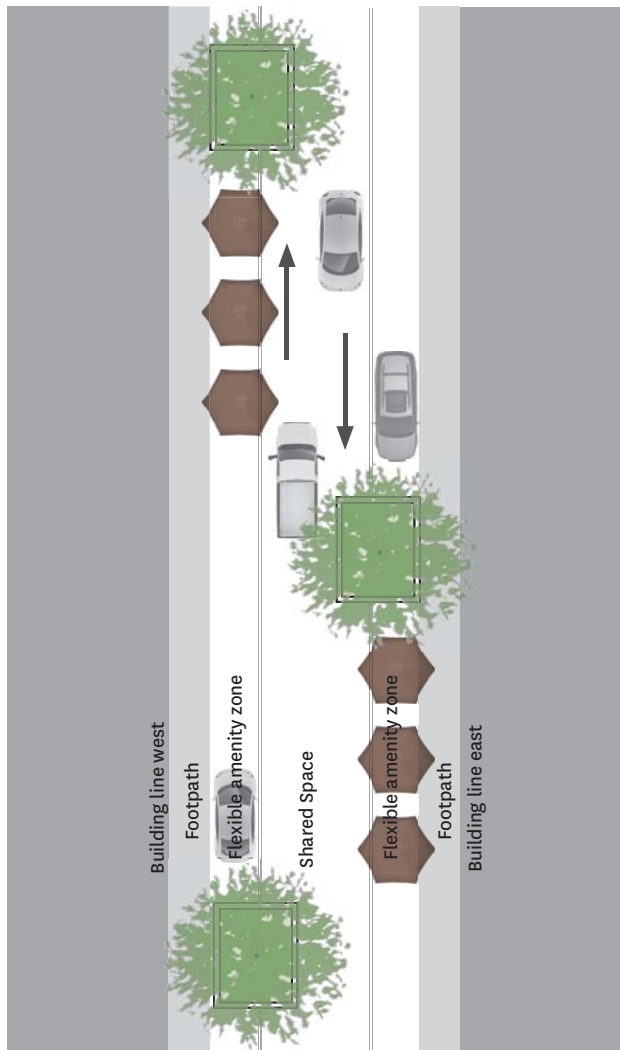
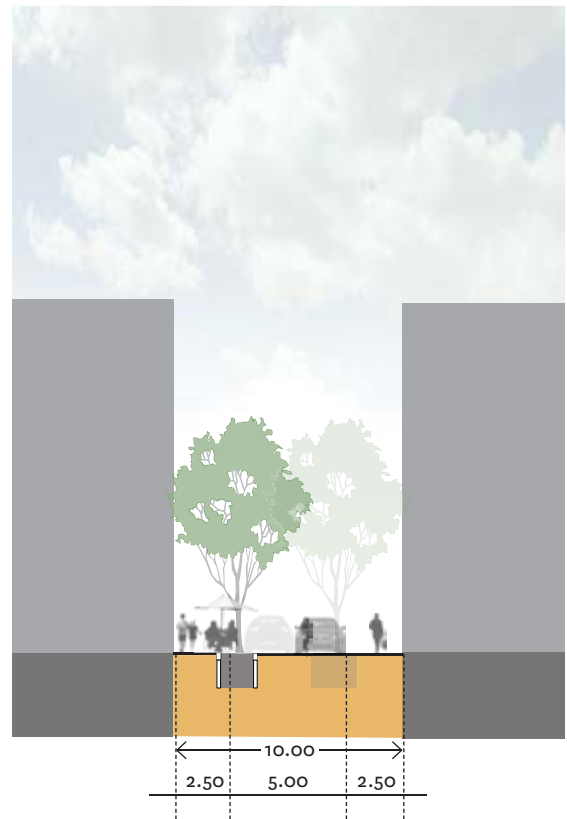
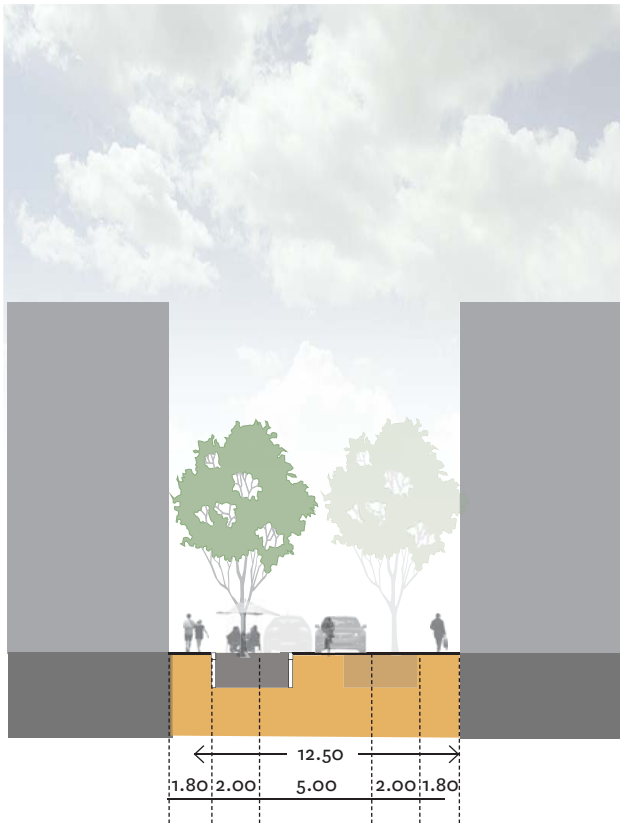


Figure 66 South Frame two way 12.5m shared street

Figure 67 South Frame two way 10m shared street

SOUTH FRAME

Innovation Precinct lanes



Key features

- mid-block connections in the form of a shared street (refer to page x for description of this street type)
- narrow streets, between 6.8 and 7.3 metres wide
- taller than wider with access to the elements and views to the sky

Context

This group of lanes are an important element defining the character and amenity of the Innovation Precinct. They will reflect the higher density of development anticipated in the area, create opportunities for urban life and improve pedestrian connectivity and access. Vertical greening elements will be encouraged as a distinctive design element. These lanes will complement the emerging network of lanes in the central city, which is illustrated on pages 76 and 77.

This guidance should be read in conjunction with the general guidance developed in the Central City Lanes Report, which can be accessed at <http://www.ccc.govt.nz/cityleisure/projectstoimprovechristchurch/urbandesign/urbandesignguides.aspx>



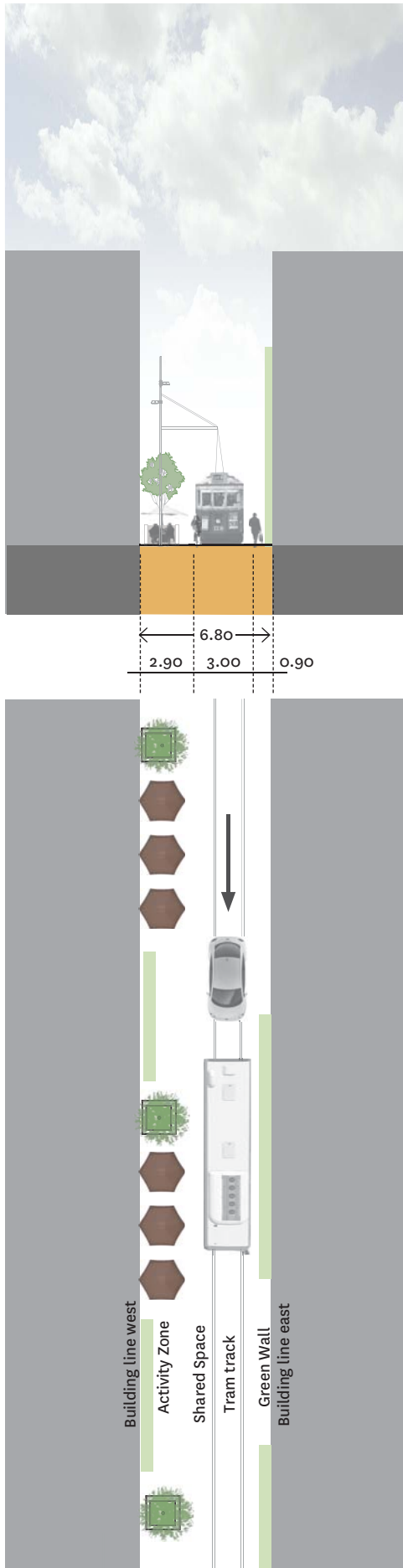


Figure 68 Poplar Street, one-way lane

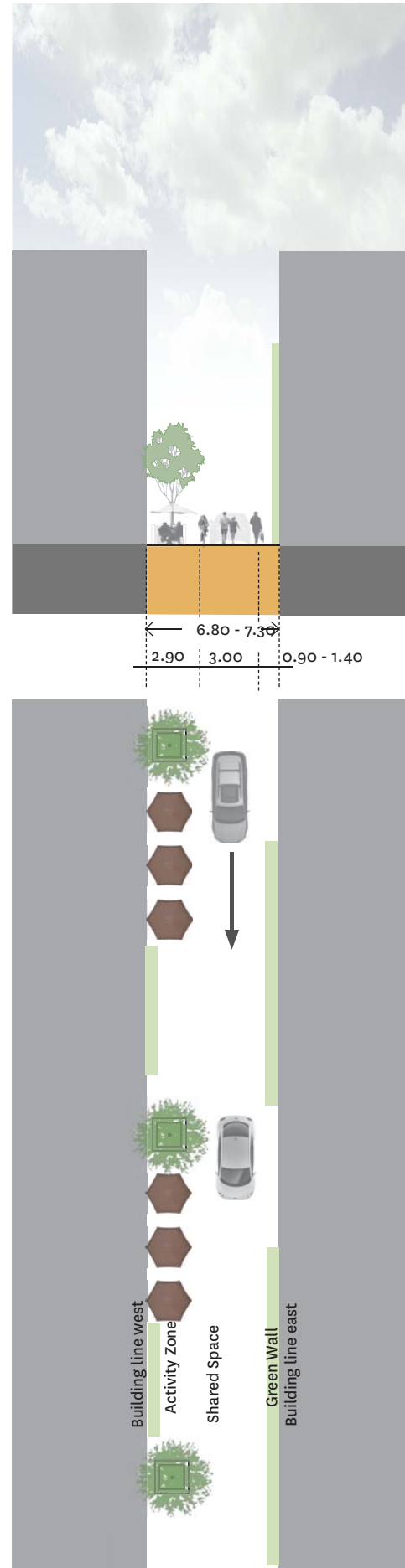


Figure 69 Innovation Precinct, one-way lane

THE AVENUES

Moorhouse, Bealey and Fitzgerald avenues



Key features

- Major arterial routes primarily for vehicle movement around the perimeter of the city centre
- Provide key connections to main distributor streets into the central city
- Two-way streets, mostly three lanes each way
- Key routes for moving vehicles
- Typically 40m-wide corridor, boundary to boundary
- Existing layout allows for on-road cycle lanes
- Large scale trees of varied species

Context

The avenues offer the opportunity to move around the city easily and access central city streets at multiple locations. They have a key role in protecting the pedestrian and cycle amenity of a number of streets in the central city by carrying large traffic volumes that otherwise would go through the city Core. In future, some movement restrictions will be progressively proposed at intersections along the avenues to maximise efficient connections to key distributor streets and manage traffic pressures on other local streets into the central city.

While the avenues should provide for efficient traffic movements, their character and role should not be limited by this important function. As the point of entry to the central city, they also provide the first impression of central Christchurch and should showcase what the city is all about.

Currently these wide streets with significant traffic flows cater well for vehicles, but amenity for pedestrians and cycles is limited. The avenues present a great opportunity to substantially improve the urban amenity for pedestrians, cycles and the uses that front them.

These opportunities can be realised through introducing street trees to create a 'green belt' around the central city and reviewing the space allocation of the existing carriageways. Opportunities to improve key cycle and pedestrian connections across the avenues will inform future enhancements. This is a significant undertaking that requires careful consideration to effectively resolve all the requirements for these streets. The cross-section on this page indicatively illustrates the general existing conditions along these streets.



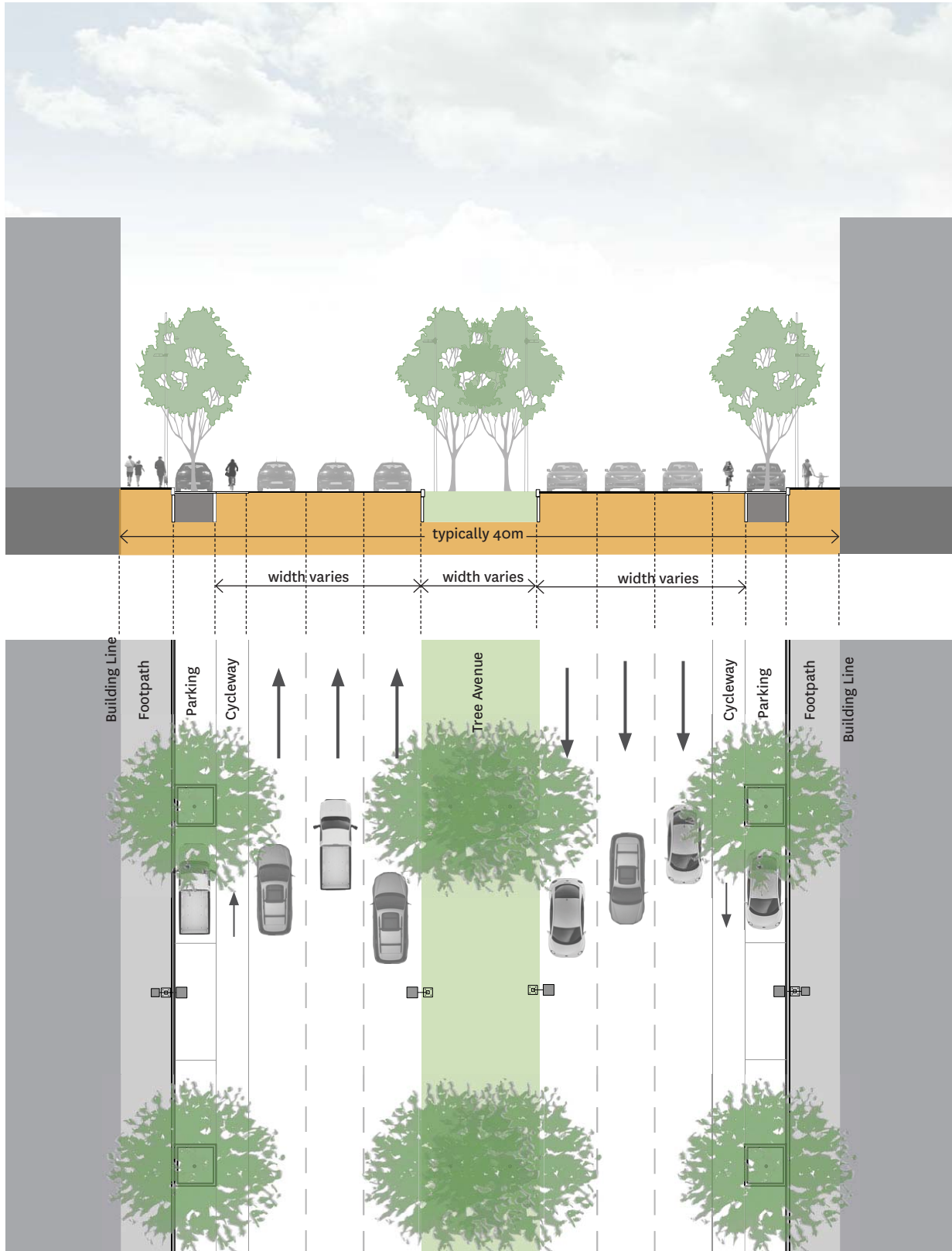


Figure 70 Moorhouse, Bealey and Fitzgerald avenues - typical existing cross-section

*“Architecture is about public
space held by buildings”*

Richard Rogers



06

ANCHOR PROJECTS
He Hinonga Matua

Overview

This chapter focuses on the public realm component of the anchor projects in the central city.

The anchor projects are each at different stages of the delivery process, which covers planning, design, approval and construction. To reflect this divergence, this chapter provides two kinds of information.

- For each anchor project that is at an advanced stage, it describes the main features of the project's public realm.
- For each anchor project that is at an early stage or is yet to commence, it identifies key objectives that will inform the design of public realm areas within the project.

The information has been prepared to:

- explain how the anchor projects relate to existing and proposed public realm areas across the central city, in particular to those areas that are adjacent to each of the anchor projects
- identify ways in which each anchor project will contribute to the vision for the central city public realm network as outlined in Chapter 1.

The information for each anchor project identifies important relationships with:

- adjacent gathering places, as explained in Chapter 4
- the immediate street network, as illustrated in Chapter 5
- other anchor projects, as described in this chapter.

Guidance in this chapter should be read in conjunction with:

- the **design criteria** for public realm projects outlined in Chapter 3
- the **design brief** prepared independently for each anchor project.

For ease of use, references to specific pages are provided throughout the text.





Legend

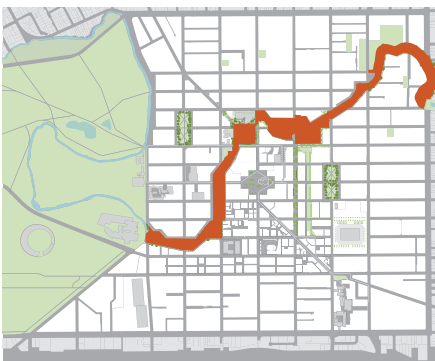
Anchor Projects	8. Innovation Precinct	GATHERING PLACES	Parks	Pedestrian priority streets
1. The Square	9. Retail Precinct	Squares	Shared streets	Lanes
2. Convention Centre Precinct	10. Bus Interchange	Plazas	Courtyards	
3. Performing Arts Precinct	11. Justice and Emergency Services Precinct			
4. Central Library	12. South Frame			
5. Te Papa Ōtākaro/Avon River Precinct	13. Health Precinct			
6. East Frame Residential Precinct	14. Metro Sports Facility			
7. Stadium Precinct	15. Earthquake Memorial			

Figure 71 The Recovery Plan Anchor Projects.

Avon River Precinct

Te Papa Ōtākaro

Te Papa Ōtākaro/Avon River Precinct anchor project aims to help re-establish a healthy river, reconnect people with the river and better integrate the river with the surrounding city centre.



Context

The Ōtākaro/Avon River is a unique feature that traverses the central city.

The visual contrast between its meandering course and the orthogonal grid is a key characteristic of the central city's urban form. Its landscape character and cultural and built heritage are important elements of the cultural and aesthetic identity of central Christchurch.

Te Papa Ōtākaro/Avon River Precinct interfaces with a number of anchor projects including the Health Precinct in the South Frame; the Justice and

Emergency Services, Retail and Convention Centre Precincts; and the East Frame residential development.

The design proposal

The design of Te Papa Ōtākaro/Avon River Precinct builds on Christchurch's 'Garden City' heritage, enhances the ecological values of the river and celebrates the city's Māori and European heritage.

Ngāi Tūāhuriri narratives are woven into the Precinct through varied design strategies including the naming of places, the selection of native aquatic and terrestrial plant species, and interpretative and artistic interventions.

The river is the organising element of the Precinct. The design defines four continuous *journeys* along its length, which are:

The promenade: As the most urban section of the corridor, it provides the interface between the city and the true right side of the river corridor largely in the form of shared streets (refer pages 74-75).

The promenade follows the existing alignment of Oxford Terrace. It provides a major address to the Convention Centre Precinct, the Retail Precinct and the South Frame's Health Precinct.

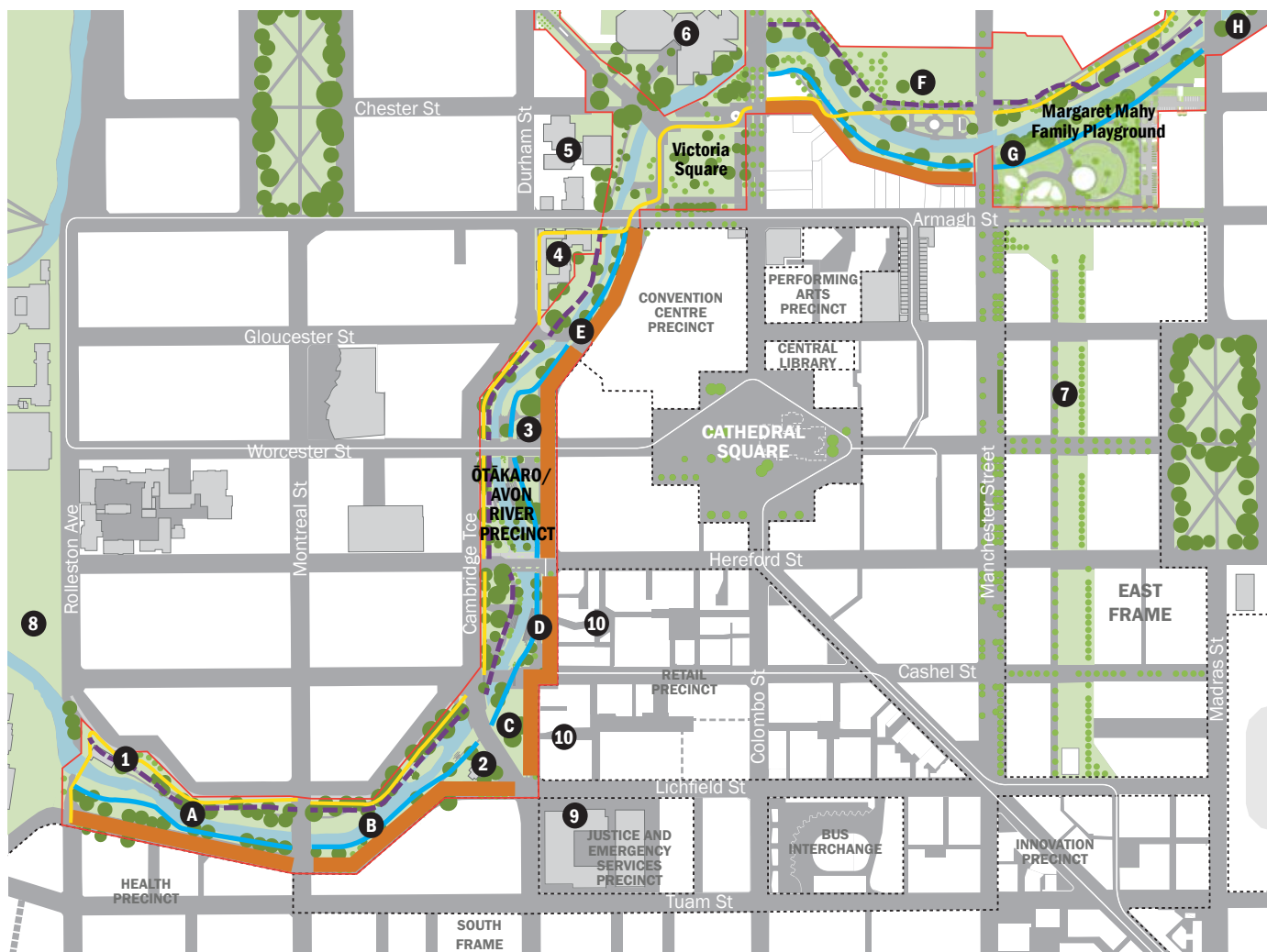
Art by the river walk: This journey follows the river's meandering alignment and topography linking artworks created to highlight the unique histories and features of the city. It provides a less formal route along the east bank, and offers formal and informal opportunities to sit and enjoy the riverbank

The left bank: This journey is the counterpart to the **river walk**. It provides a meandering and informal route for pedestrians to enjoy the lawns, shrub planting and mature trees.

The cycle path: The cycle path is generally located on the external side of the left bank. It provides a continuous and enjoyable recreational cycling route which connects with the city's Major Cycleways network. The Christchurch Major Cycleways Programme is explained on pages 86 to 89.



Figure 72 Artist impression, the promenade.



Legend

JOURNEYS

- █ The promenade
- █ Art by the river walk
- █ The left bank
- █ Shared path

ZONES

- A. Antigua Boatsheds
- B. Earthquake Memorial
- C. Friendship Corner
- D. The Terraces
- E. Convention Centre Precinct
- F. North Frame
- G. Margaret Mahy Family Playground
- H. Avon Loop

EXISTING BUILDINGS

- 1. Antigua Boatshed
- 2. Regatta on Avon
- 3. Our City O-Tautahi
- 4. Canterbury Provincial Council Building
- 5. Law Courts
- 6. Town Hall

RELATED PUBLIC PLACES

- 7. East Frame Central Park
- 8. Botanic Gardens
- 9. Justice and Emergency Services Precinct Plaza
- 10. Retail Precinct lanes

RELATED ANCHOR PROJECTS

OTHER

- Tram route
- Other significant buildings

Figure 73 Te Papa Ōtākaro/Avon River Precinct.

Avon River Precinct (continued)

Te Papa Ōtākaro

The river corridor and its journeys are punctuated by a series of distinct zones:

Antigua Boat Sheds: The area between Antigua and Durham streets extends the park character of the Botanical Gardens and enhances the heritage setting of the Antigua Boat Sheds.

Canterbury Earthquake Memorial:

The Memorial will be located along the stretch between Montreal Street Bridge and Rhododendron Island. It will be the site where small groups or individuals can pay respect to those who lost their lives or were injured in the 2010–2011 earthquakes. It will be a place to reflect, remember, acknowledge and celebrate.

Friendship Corner: Where Cashel Street meets the promenade (Oxford Terrace) and adjacent to the Retail Precinct, the design consolidates a commemorative space that integrates the trees representing Christchurch’s sister cities.

The Terraces: West of the Retail Precinct, this section of the promenade is designed as a hospitality destination. A prime riverfront location, it is set to become a social hub in the central city. The design provides opportunities to touch the water and integrates a refurbished Bridge of Remembrance.

Convention Centre Precinct: The continuation of **the promenade** provides an iconic Christchurch location between Worcester Bridge and Armagh Street for events hosted in the city’s new Convention Centre Precinct.

Victoria (Market) Square: Formerly known as Market Square or Market Place, it was the centre of town life until the 1870s. It sits in a prominent location at the confluence of a number of major existing and proposed movement routes. Victoria Square bookends the south-east end of Victoria Street.

Victoria Square is the Precinct’s poutokomanawa (central pole) where visitors may be first welcomed to the city through the pōwhiri ritual. It will provide a prominent address to the future Convention Centre Precinct along Armagh Street. Victoria Square will continue to be a natural gathering place in the central city, a welcoming green square for relaxation, organised celebration and civic events.

Margaret Mahy Family Playground: The Family Playground is a play space in a regional catchment of approximately 1.5 hectares which will offer child- and family-focused play and recreational activities.

The design is inspired by the Māori name of the river – ‘Ōtākaro’ – and the traditional activity of poi swinging. In te reo Māori (Māori language), ‘tākaro’ is a verb meaning play. Both these elements are manifest in the design as a path in the form of a poi playfully wending through the site. The design references typical Canterbury landscapes including wetlands, coastal dunes and highlands.

The Family Playground connects Te Papa Ōtākaro/Avon River Precinct to the East Frame Central Park.

North Frame: On the true left bank of the river, the North Frame extends from Colombo Street to the east of Manchester Street. The design draws on a collection of traditional elements and historical items located in the area, including the Edmonds Band Rotunda and the Avenue of Poplars.

The Avon Loop: Along this stretch east of Madras Street to Fitzgerald Avenue, the design takes a naturalistic approach. It strengthens the cultural significance of the area through native planting and an enhanced landscape.





Figure 74 Artist impression, the promenade.



Figure 75 Artist impression, the promenade (Retail Precinct).



Figure 76 Artist impression, the river walk (Avon loop).



Figure 77 Artist impression, Margaret Mahy family playground.

Canterbury Earthquake National Memorial

He Whakmaumaharatanga o te Ru Whenua

The Canterbury Earthquake National Memorial will provide a place where people can reflect and honour the people who died as well as those who were injured in the Canterbury Earthquakes.



Context

The Canterbury Earthquake National Memorial will be located along the Ōtākaro/Avon River in the stretch between Montreal Street Bridge and Rhododendron Island. This location was selected because it is easily accessible and can accommodate one person seeking quiet reflection or ceremonial events with many people. It also fits well the wishes from families of people who died in the earthquake and those who were severely injured. Feedback showed they wish for the memorial to incorporate water and greenery.

The Memorial will be integrated with the design for Ōtākaro/Avon River Precinct. A meandering pathway along the left river bank will link the Memorial to the Bridge of Remembrance to the north and to the Botanic Gardens and Hagley Park to the west.

The Design

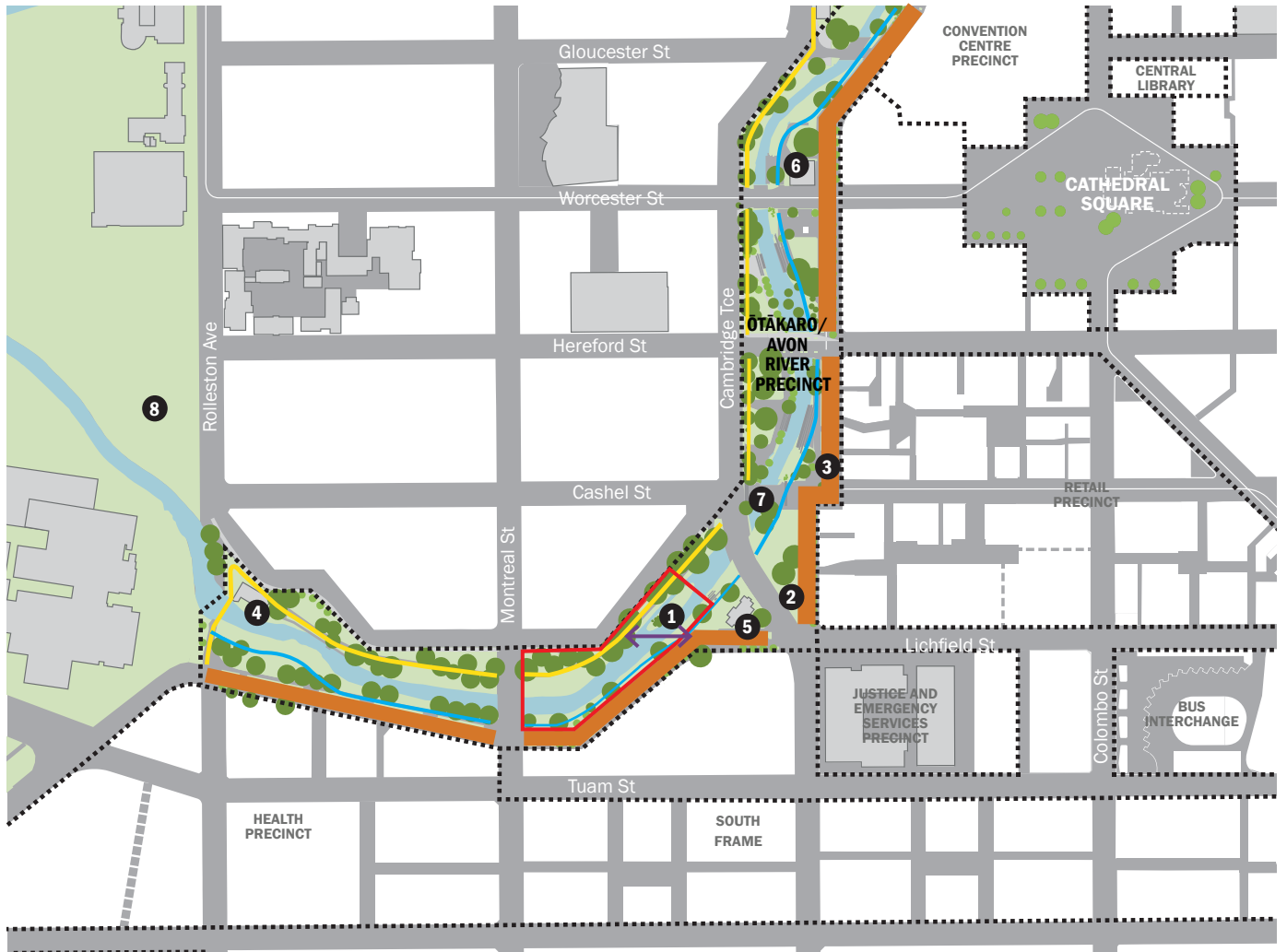
The design of the Canterbury Earthquake National Memorial will be selected through an open call for ideas process named *Ideas to Remember*. The selection process involves feedback from the general public, the bereaved families, the severely injured, recovery leaders and key stakeholders.

Ideas to Remember seeks a memorial design that:

- honours the 185 people who lost their lives, as well as those who were injured in the earthquakes
- remembers and gives thanks to the many organisations from around the country and around the world that assisted in the rescue and recovery

- recognises the shared human experiences of those involved in the events, and the effects of the earthquakes on the city and Canterbury including the loss of many treasured heritage buildings, as well as the familiar everyday cityscape
- provides a space for hosting formal civic events, such as an annual memorial gathering on 22 February
- allows for reflection and contemplation for small groups or individuals on a day-to-day basis
- becomes the anchor point for remembering in the city and Canterbury and part the wider context impact of the earthquakes.





Legend

Earthquake Memorial Site	ŌTĀKARO/ AVON RIVER PRECINCT	EXISTING BUILDINGS	RELATED ANCHOR PROJECTS
1. Rhododendron Island	The promenade	4. Antigua Boatshed	OTHER
Potential link (indicative)	Art by the river walk	5. Regatta on Avon	Tram route
	Shared path	6. Our City O-Tautahi	Other significant buildings
	2. Friendship Corner	RELATED PUBLIC PLACES	
	3. The Terraces	7. Bridge of Remembrance	
		8. Botanic Gardens	

Figure 78 Canterbury Earthquake National Memorial

East Frame Central Park

Ngā Wāhanga

The vision for the East Frame Central Park is to create a contemporary and flexible linear open space that builds on Christchurch’s urban form and Ngāi Tūāhuriri values. The park will function as a connector through the east of the central city.



Context

The Central Park will be the third-largest open space in the central city creating a significant extension of the city’s green spaces to the east of the Core. It will also enable pedestrian and cycle connections between Te Papa Ōtākaro/Avon River Precinct and the Innovation Precinct and beyond.

This linear park will be flanked by new medium-density residential development on both sides, providing an open space spine for the East Frame. The park has an important role in supporting a new model for inner city living that is attractive, convenient and sustainable.

The design proposal

The park extends the Ōtākaro/Avon River corridor into the structure of the city grid. Its design creates an ordered and constructed landscape which contrasts with the organic alignment of the river.

Sustainable design strategies form an integral part of the functional, ecological and visual amenity of the park. They provide a contemporary expression of Ngāi Tūāhuriri cultural values and include stormwater management, natural habitat creation, and food production (mahinga kai). These strategies are expressed in the park through rainwater gardens, the planting selection and spaces for future community gardens.

The linear park has the following distinct components.

North–south links: This group of shared streets located on the western edge of the park provides a pedestrian and cycle link between the Ōtākaro/Avon River and the South Frame. These streets also allow for local vehicular access to the new development parcels on the west side of the park.

Rain gardens: A series of linear swale gardens along the park’s length will collect, clean and hold water from the adjacent catchment area.

Green rooms: These open, flexible spaces will be able to support a variety of recreational activities.

Parkland walks: Slow, north–south paths on the east and west side of the park.

Civic links: These two east–west streets of distinctive character are:

- **Worcester Street**, which will extend the civic route between the Canterbury Museum and Cathedral Square to Latimer Square
- **Cashel Street**, which will extend the character of City Mall to the east, linking Te Papa Ōtākaro/Avon River and Retail precincts to the future Stadium Precinct.

Trees: With various arrangements of exotic and native species, the trees define the spaces along the park and provide bird habitat, shelter, shade and seasonal interest.



Figure 79 Artist impression, the promenade.



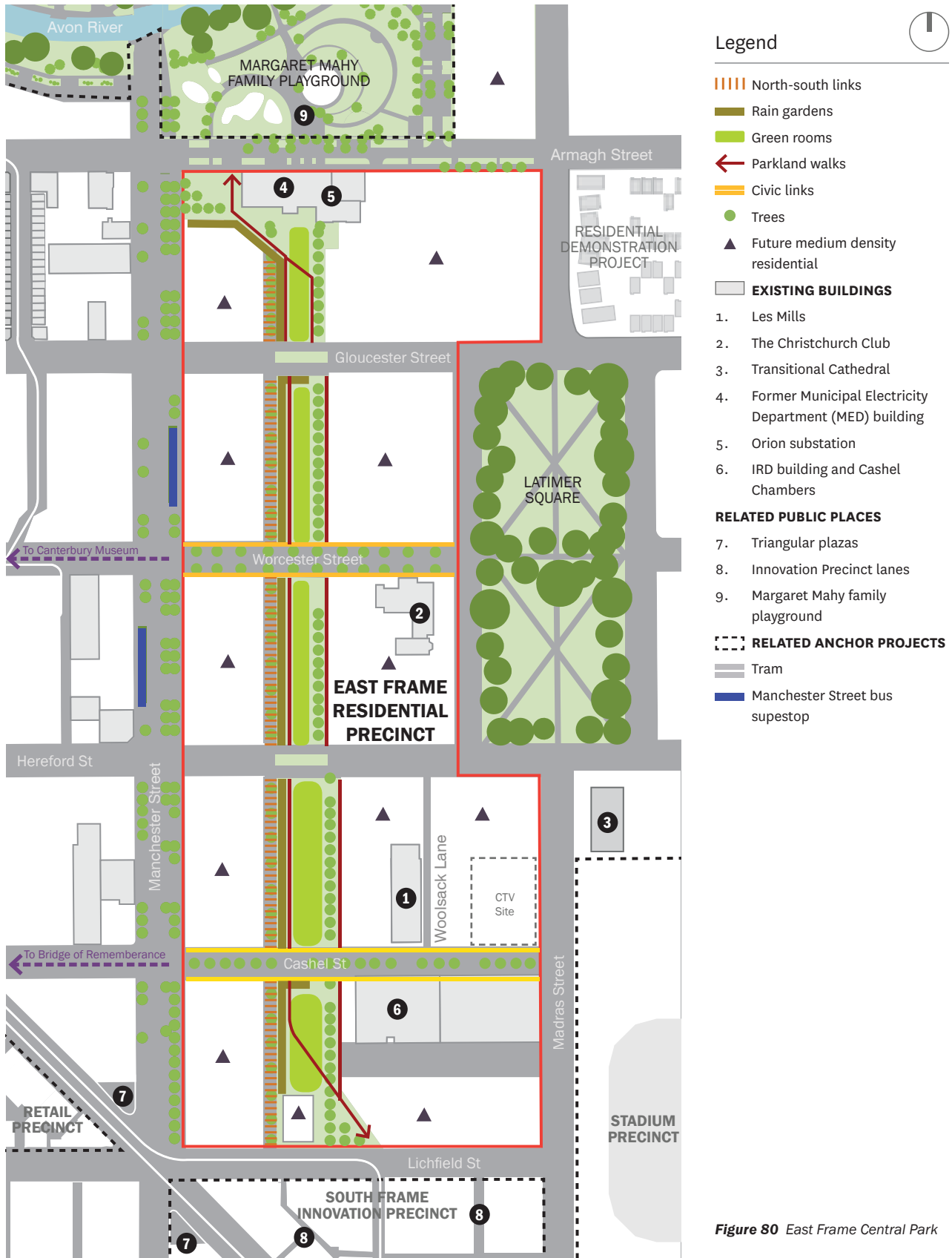


Figure 80 East Frame Central Park

Justice and Emergency Services Precinct

Te Manatū Ture me Te Kāhui Whakamarumarū

The Justice and Emergency Services Precinct will co-house facilities for all justice and emergency services in one innovative, purpose-built complex.



Context

The Justice and Emergency Services Precinct is located in the city block bounded by Lichfield, Durham, Tuam and Colombo streets.

Lichfield Street presents the primary pedestrian entrance to the Precinct and provides a secondary vehicular access route. The Precinct benefits from ready access to the distributor road network for emergency vehicles through Durham and Tuam streets. Its proximity to Christchurch Hospital and the Health Precinct in the South Frame provides the added advantage of supporting the coordination of related acute hospital services.

This Precinct is within walking distance of a number of amenities including Te Papa Ōtākaro/Avon River Precinct, the new Bus Interchange, the Retail Precinct and the future network of public spaces in the South Frame. An estimated 2,000 people will work in or use the Precinct daily, stimulating recovery by supporting retail and commercial activity in the area.

The design proposal

The design of the Precinct comprises three buildings organised around a central courtyard. The pedestrian entries and courtyard are elevated one level above the ground to allow for internal basement connections between buildings.

The buildings are set back from the site's boundary. Receding the buildings enables a smooth transition from the street to the entrance level and creates a special setting for this civic building.

The following are some of the main features of the Precinct's public spaces.

Plaza: A civic plaza at the corner of Durham and Lichfield streets provides the foreground to the Precinct's main entrance. Directly opposite Te Papa Ōtākaro/Avon River Precinct, the plaza will provide a fitting marae atea for formal welcoming ceremonies. The contemporary architecture framing the plaza will contrast with the heritage character of St Michael's Church on Durham Street and the Regatta on Avon restaurant building on the opposite corner. Other plazas in the central city are illustrated on page 70.

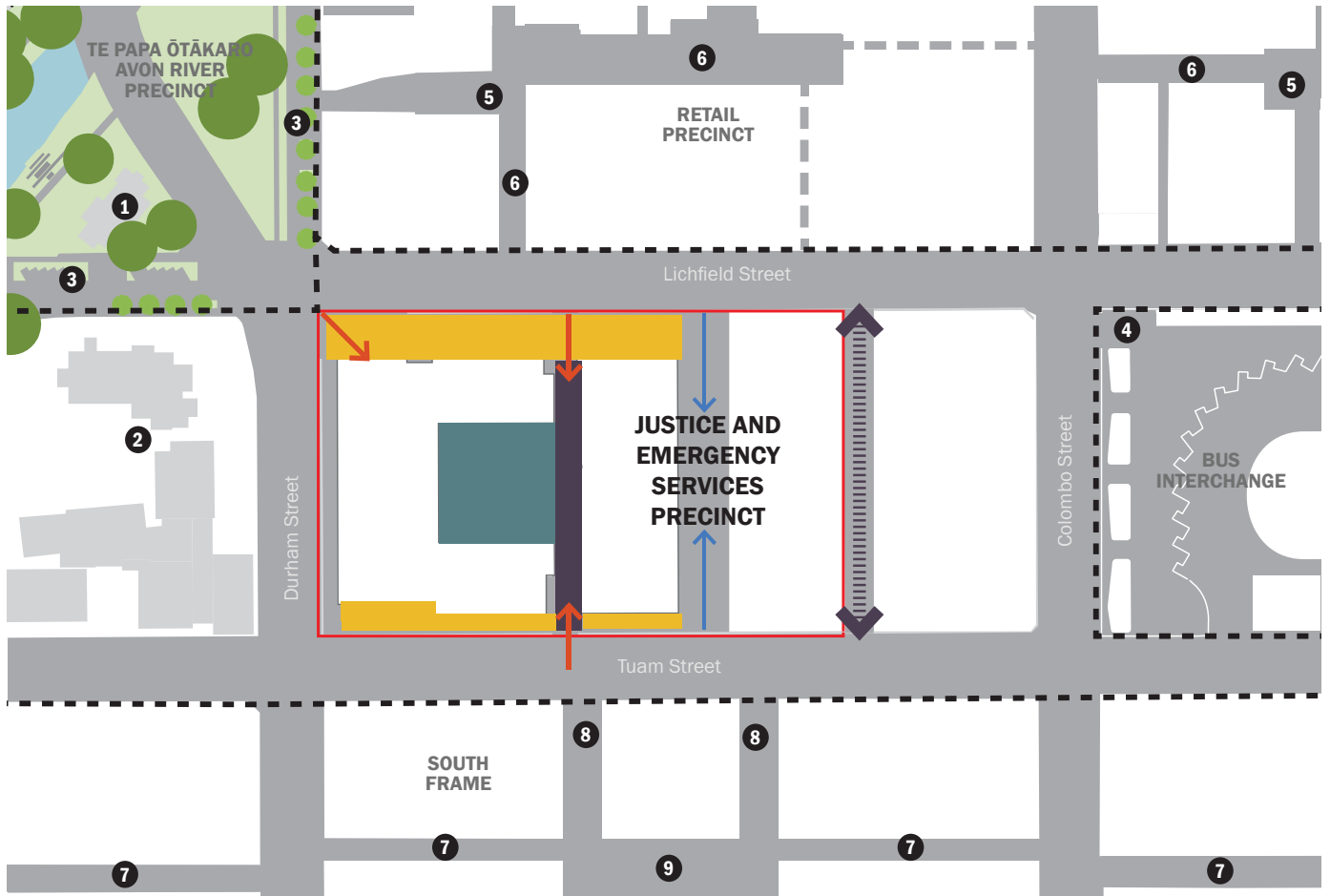
Courtyard: The courtyard will provide an internal open space for employees and visitors to the Precinct. Its design consists of a reticular structure which is softened by natural elements, including trees, planting and water. This combination creates intimate sub-spaces suited for small gatherings or quiet conversations. The use of landscape and materials references elements of the Cantabrian landscape and provides colour, sound, texture and scents. Other courtyards in the central city are illustrated on page 68.

Pedestrian link: A north-south link will provide a pedestrian connection between the Precinct's courtyard and adjacent streets through to the South Frame and the Retail Precinct.



Figure 81 Artist impression, Justice and Emergency Services Precinct plaza.





Legend

<ul style="list-style-type: none"> Plaza Courtyard Pedestrian link Potential lane Pedestrian access Vehicular access 	<p>BUILDINGS OF HERITAGE INTEREST</p> <ul style="list-style-type: none"> 1. Regatta on Avon 2. St Michael's Church 	<p>RELATED PUBLIC PLACES</p> <ul style="list-style-type: none"> 3. Ōtākaro/Avon River Promenade 4. Bus Interchange plaza 5. Retail Precinct courtyards 6. Retail Precinct lanes and arcades 7. South Frame greenway 	<ul style="list-style-type: none"> 8. South Frame shared streets 9. South Frame courtyards <p>[- - -] RELATED ANCHOR PROJECTS</p>
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Figure 82 Justice and Emergency Services Precinct.

Bus Interchange

Whakawhitinga Pahi

Christchurch's Bus Interchange will offer an attractive, safe and efficient transport hub that supports public transport as a convenient and desirable alternative way of travelling to and from the central city.



Context

The Bus Interchange is conveniently located at the edge of the city's Core within walking distance of key destinations including Cathedral Square, the Retail Precinct, the East and South frames and the Stadium Precinct.

The Bus Interchange has direct access off Tuam and Lichfield streets, which are bus priority routes. Lichfield Street provides a key connection to Manchester Street, the major new bus priority street in the central city. Colombo Street, as a slow street and one of the central city civic axes, provides the main address for patrons accessing the Bus Interchange either by walking or cycling.

The design proposal

Inherently, the Bus Interchange is a place of people moving, coming and going. By 2041 it will be used by an estimated 70,000 people per day.

The design of the Bus Interchange consists of perimeter buildings around an internal concourse for passenger pick-up and drop-off. The public realm associated with these buildings will have a significant impact on the quality of the experience of patrons using this facility. It includes the following elements.

Access plaza: At the corner of Colombo and Lichfield streets, the plaza is recessed under the building canopy creating the main access point to the Bus Interchange. The eye-catching roof and façade treatment of this corner will establish an architectural landmark for pedestrians and passengers to get their bearings, meet or socialise.

This intersection will be signalised to give priority to pedestrians, allowing them to cross straight or diagonally at the same time (ie, a Barnes Dance crossing).

Colombo and Lichfield street frontages:

These frontages will provide alternative entry points to the Bus Interchange. They will be lined by passenger services and facilities arranged in an airport lounge style. These include ticketing and waiting areas and convenience and food shops.

Both frontages will have wide footpaths and integrated trees. Inter-city coaches will be provided for along Lichfield Street, where passengers will have convenient access to all the amenities and comforts of the Interchange. A mid-block pedestrian crossing will connect with the Retail Precinct to the north. Covered public bicycle parking will be provided at the corner of Colombo and Tuam streets.

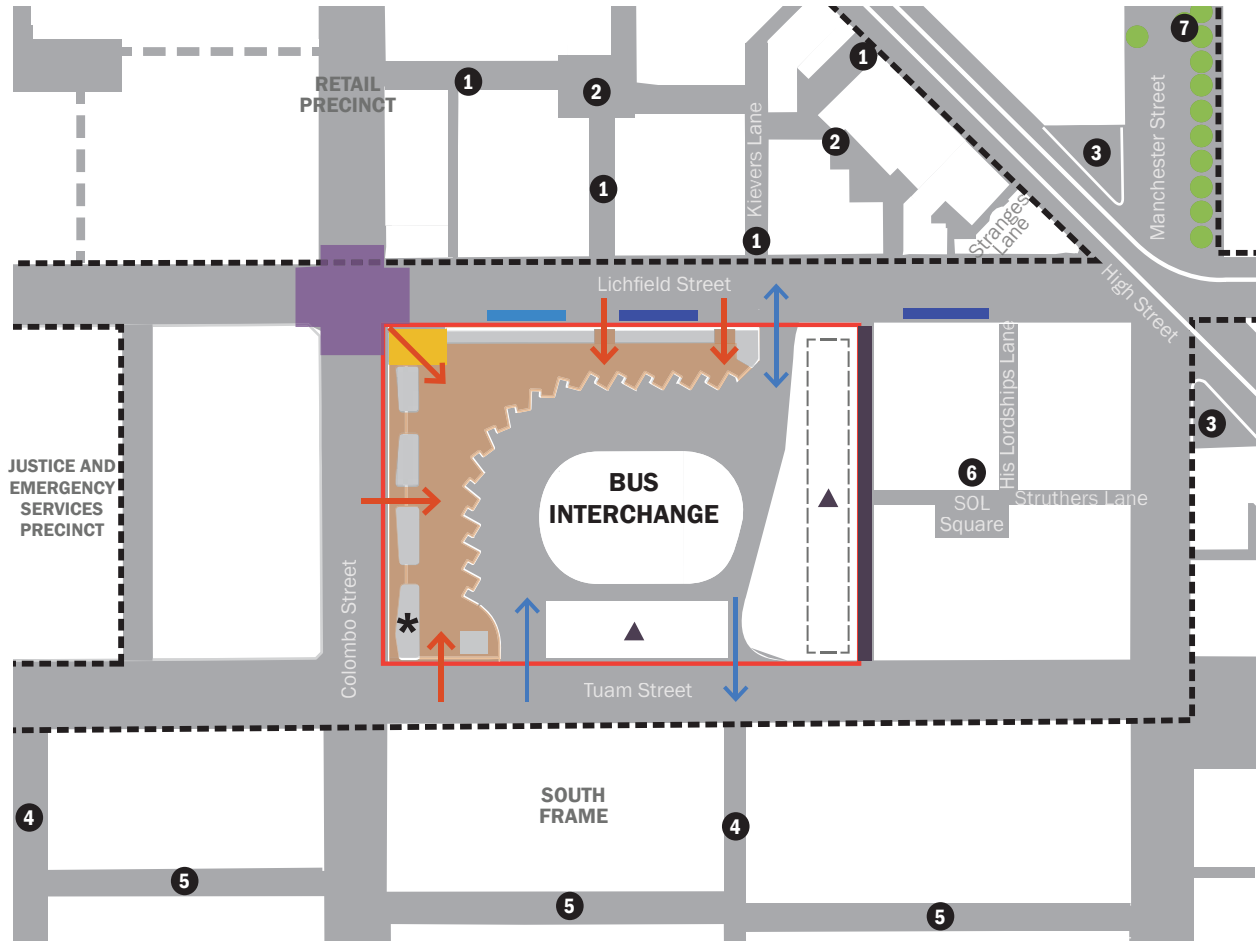
East lane: This north-south lane will link Tuam and Lichfield streets and provide an interface between SOL Square and a new development parcel to the east of the Bus Interchange.

The public character of the Bus Interchange's concourse will generate a connection between the interior and exterior of the building, creating a truly civic building.



Figure 83 Artist impression, Bus Interchange plaza.





Legend

- Plaza and main pedestrian entry
- Bus interchange concourse
- Other pedestrian entries
- Barnes dance crossing
- East lane
- Intercity coaches
- Taxi rank
- * Public bicycle parking
- Bus access points

RELATED PUBLIC PLACES

1. Retail Precinct lanes and arcades
2. Retail Precinct courtyards
3. Triangular plazas
4. South Frame shared streets
5. South Frame greenway
6. SOL Square and related lanes
7. Manchester Street

Future development sites

Tram route

RELATED ANCHOR PROJECTS



Figure 84 Bus Interchange.

Retail Precinct

Wāhi Hokohoko

The Retail Precinct will offer compelling shopping, hospitality and cultural experiences that are distinctively of contemporary Canterbury.

Context

The Retail Precinct is bounded by Oxford Terrace and Hereford, High and Lichfield streets. It has a prominent frontage onto Te Papa Ōtākaro/Avon River Precinct and neighbours the Bus Interchange and the Justice and Emergency Services Precinct.

The Retail Precinct has a strategic central location within walking distance of future major office, employment and entertainment activities. These uses will help generate increased footfall and expenditure in the Precinct.

The Retail Precinct is a privately developed and operated precinct within various ownerships. The ownership pattern provides a great base to create a varied and interesting precinct. It will also require greater levels of coordination and collaboration between stakeholders. The Crown has facilitated the development of a Retail Precinct Plan to provide an option for coordinating the development of the Precinct. The Retail Precinct Plan provides a spatial framework that integrates the various existing development proposals. It also identifies design opportunities and offers design guidance. This section provides an overview of matters in the Retail Precinct Plan related to the public realm.

Overview

Delivering the vision for the Retail Precinct involves creating a precinct that offers a unique atmosphere, a unique retail mix and many compelling reasons to visit.

The Retail Precinct will offer a distinctive central city shopping experience attractive to locals and tourist alike. The shopping offer will be complemented by interesting entertainment, cultural, art and community activities. The retail and hospitality uses at ground level will be complemented by commercial, accommodation and residential uses above. This mix of uses will support activation and variety in the Precinct at different times of the day and night.

The Retail Precinct Plan proposes a precinct of distinctive and vibrant **courtyards, lanes and streets.**

Design objectives

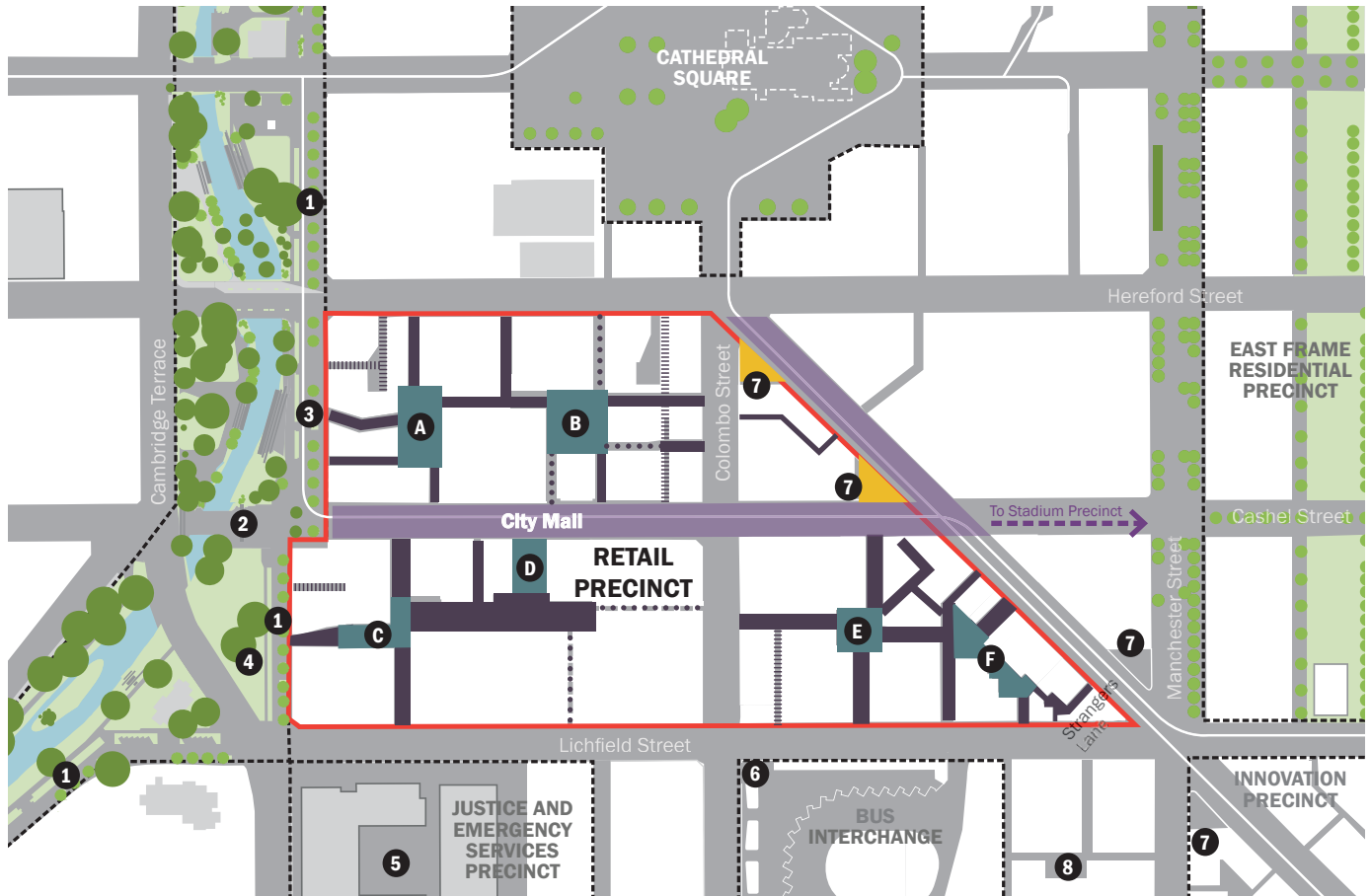
Pedestrian experience

- Promote ground floor frontages that positively contribute to the quality and vitality of the Precinct's public realm.

In general, the design of the ground floor of buildings has a key influence on the vibrancy of a city. In the Retail Precinct, in particular, this aspect is of prime importance. People are more strongly attracted to well-designed, interesting and varied façades and they tend to spend more time in these locations. The **design criteria** on pages 54 to 57 provide helpful guidance on creating attractive ground floor façades.

- Celebrate key views into the Ōtākaro/Avon River and the Precinct's new lanes and courtyards.
- Promote a palette of materials and street elements that strengthens the continuity of the laneway network and contributes to wayfinding.





Legend

LANES

- Lanes
- Arcades
- Service lanes
- Pedestrian priority streets

COURTYARDS

- A. The Terrace – hospitality and retail courtyard
- B. Cashel Square – office and retail courtyard

- C. South West End – garden courtyard
- D. South Central – retail courtyard
- E. South East End – movement/ junction courtyard
- F. South East End – service and hospitality courtyard

RELATED PUBLIC PLACES

- 1. Ōtākaro/Avon River Promenade
- 2. Bridge of Remembrance
- 3. The Terraces
- 4. Friendship Corner
- 5. Justice and Emergency Services Precinct – courtyard

- 6. Bus Interchange – entry plaza
- 7. Triangular Plazas
- 8. SOL Square and arcades
- Related Anchor Projects
- Tram route

Figure 85 Retail Precinct.

Retail Precinct (continued)

Wāhi Hokohoko

The Retail Precinct Plan proposes a precinct of distinctive and vibrant courtyards, lanes and streets.

Design objectives (continued)

Courtyards

- Enhance the Precinct’s shopping and hospitality offer with courtyard spaces of varied and distinct scales and characters. The proposed courtyards and their characters are mapped on page 169

The emerging network of courtyards in the central city and related design guidance are set out on pages 68-69.

Lanes

- Capitalise on the spatial quality of lanes to accommodate a retail offer that is distinctly different from that on the streets. These may be smaller specialty and boutique retailers to be discovered while exploring the Precinct.
- Create lanes with a distinctive character and design from other lanes in the central city. Design considerations that may assist in achieving this objective include:
 - using the design of lighting and business signage to express and reinforce the individual character of each lane. Lighting should be consistent for the full length of each lane. Fixtures should be fixed to walls to minimise clutter and high enough to clear service vehicles
 - using fixed street furniture sparingly and only on wide lanes
 - avoid planting trees in narrow lanes as they will block light
 - ensuring any awnings will allow access for natural light and views to the sky.

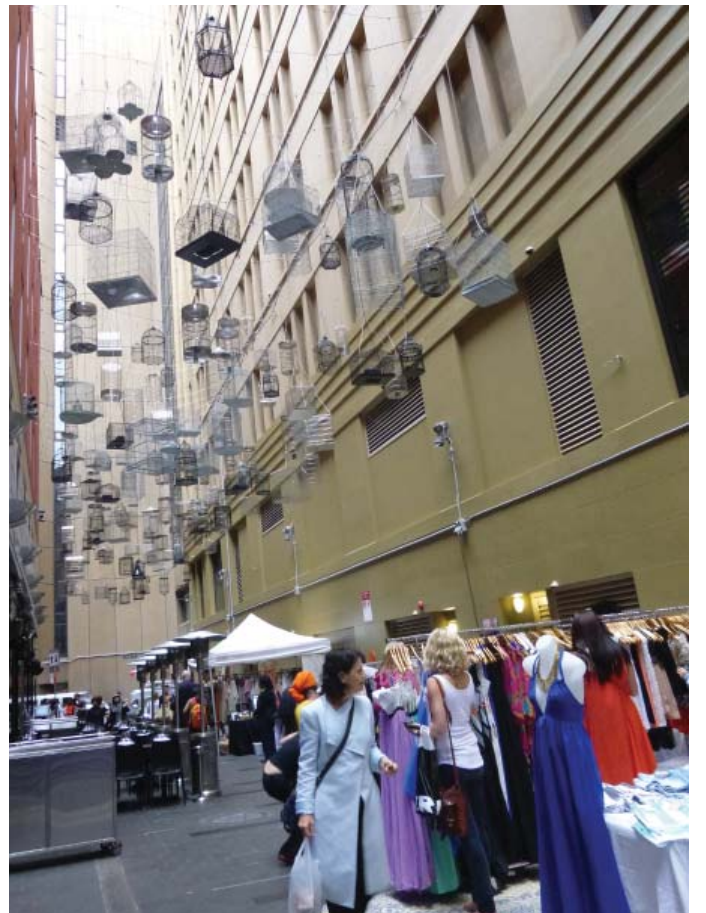
The emerging network of lanes in the central city and related design guidance are set out on pages 76-77.

Streets

- City Mall (Cashel Street) and Colombo and High streets will have high pedestrian flows and therefore will be suitable for the most intensive ‘main street’ retailing. City Mall will continue to be the Precinct’s main street and will connect the new network of lanes and courtyards.
- The Ōtākaro/Avon River promenade (Oxford Terrace) is the Retail Precinct’s riverfront address. The zone in front of the Retail Precinct has been designed as a hospitality and entertainment destination. Promoting these types of uses on this frontage is essential to realise the vision for the area.
- Lichfield and Hereford streets have a greater vehicle and public transport orientation and a closer relationship to other institutional and commercial activities. These street frontages integrate the commercial and residential addresses within the Precinct and provide opportunities for fringe retail.

Design concepts proposed for these streetscapes are set out in Chapter 5.

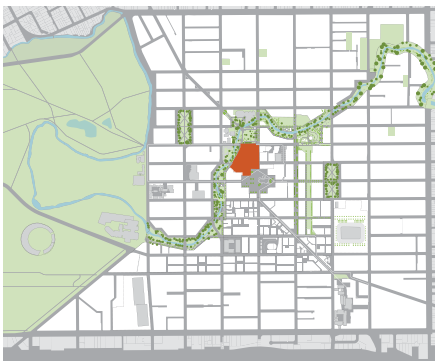




Convention Centre Precinct

Whare Rūnanga

The Convention Centre Precinct will be a world-class venue that attracts business, events and conferences to Christchurch and New Zealand.



Context

The Convention Centre Precinct has a prime location with frontages onto the city's main public places: Cathedral Square, Victoria Square, Colombo Street and Te Papa Ōtākaro/Avon River Precinct.

The Performing Arts Precinct and new Central Library will be located on the opposite side of the Colombo Street address. Together with the Convention Centre Precinct, these venues will define a civic route to Cathedral Square.

Public transport access will be conveniently located approximately 200 metres to the east of the Precinct at the Manchester Street bus super stop. The existing city tram route runs along Armagh and Worcester streets and around Cathedral Square.

The site for the Convention Centre Precinct is bounded by the Ōtākaro/Avon River promenade (Oxford Terrace) and Armagh, Colombo and Worcester streets. The section of Gloucester Street between Oxford Terrace and Colombo Street has been integrated into the Precinct's site. The Isaac House building at the corner of Armagh and Colombo streets has heritage significance.

Overview

The Convention Centre Precinct will consist of a series of venues for small and large conferences, events and exhibitions. It will be designed to host concurrent events. The Precinct will also provide offices, hotel and residential accommodation, retail and hospitality activities.

Design objectives

- Promote an architecture and public realm design that will become an important component of the image of Christchurch as a distinctive, progressive and people focused city.
- Create street frontages that positively contribute to the vitality of the important public places in the surrounds: Cathedral Square, Victoria Square, Colombo Street and Te Papa Ōtākaro/Avon River Precinct.

The location and design of vehicular access points and service areas should minimise any negative effects on the pedestrian amenity of the public spaces around the Precinct.

- Maintain and clearly define the characteristic cruciform shape of Cathedral Square.
- Maintain public access to the river corridor, extending the Ōtākaro/Avon River promenade across the site. Design this interface to create a distinct zone that complements other zones along Te Papa Ōtākaro/Avon River Precinct.
- Provide pedestrian lane(s) between Cathedral Square and Te Papa Ōtākaro/Avon River Precinct. Refer to pages 76-77 for guidance on laneway design.
- Design the Armagh Street frontage to integrate and complement the design and activities envisaged for Victoria Square, in particular pōwhiri (cultural welcome ceremonies) for guests of the Convention Centre.





Legend

- | | | | |
|---|--|--|---|
| <ul style="list-style-type: none"> Indicative future pedestrian link Active frontage Provide continuity to the Ōtākaro/Avon River Promenade Clearly define the cruciform shape of Cathedral Square Former Gloucester St alignment | <p>EXISTING BUILDINGS</p> <ul style="list-style-type: none"> 1. Isaac House (Heritage) 2. Cafe Roma 3. Former Rydges Hotel 4. Our City O-Tautahi 5. New Crown Plaza 6. Canterbury Provincial Council Building | <ul style="list-style-type: none"> 7. Environment Court (Temporary buildings) 8. Novotel Hotel 9. Heritage Christchurch Hotel 10. Former Millenium Hotel 11. Isaac Theatre Royal 12. New Regent Street | <p>RELATED PUBLIC PLACES</p> <ul style="list-style-type: none"> A. Ōtākaro/Avon River Promenade B. Victoria Square C. Performing Arts Precinct lane (indicative) D. Performing Arts Precinct courtyard (indicative) <p>RELATED ANCHOR PROJECTS</p> <ul style="list-style-type: none"> Future development sites Tram route |
|---|--|--|---|

Figure 86 Convention Centre Precinct.

Performing Arts Precinct

Te Whare Tapere

The Performing Arts Precinct will offer a cluster of performing art venues and training facilities where the culture and creative potential of Cantabrians are fostered and celebrated.



Context

The Performing Arts Precinct sits opposite the future Convention Centre Precinct and new Central Library.

The restored Isaac Theatre Royal and New Regent Street define the east boundary of the Precinct. A new bus super stop will be located approximately 100 metres to the east of the Precinct on Manchester Street. The Precinct is within five minutes' walk of Cathedral Square, Te Papa Ōtākaro/ Avon River Precinct and the East Frame residential precinct.

Overview

The Performing Arts Precinct will provide an important venue for Christchurch's calendar of cultural events, drawing local and tourist visitation to the central city. It will offer facilities for theatre, music, dance and other expressive forms.

The Performing Arts Precinct will be the permanent home for the Music Centre of Christchurch and other existing cultural institutions, which could include the Court Theatre and the Christchurch Symphony Orchestra. The co-location of these institutions would create opportunities for collaboration and sharing of ideas and resources, and for art programmes to complement each other.

In a similar way, the Precinct's proximity to the Isaac Theatre Royal, Victoria Square, the Convention Centre Precinct and the new Central Library provides opportunities for cultural activities to extend beyond the Precinct's boundaries. The Precinct will offer a hub and meeting place for the arts community and creative industries of Christchurch.

Design objectives

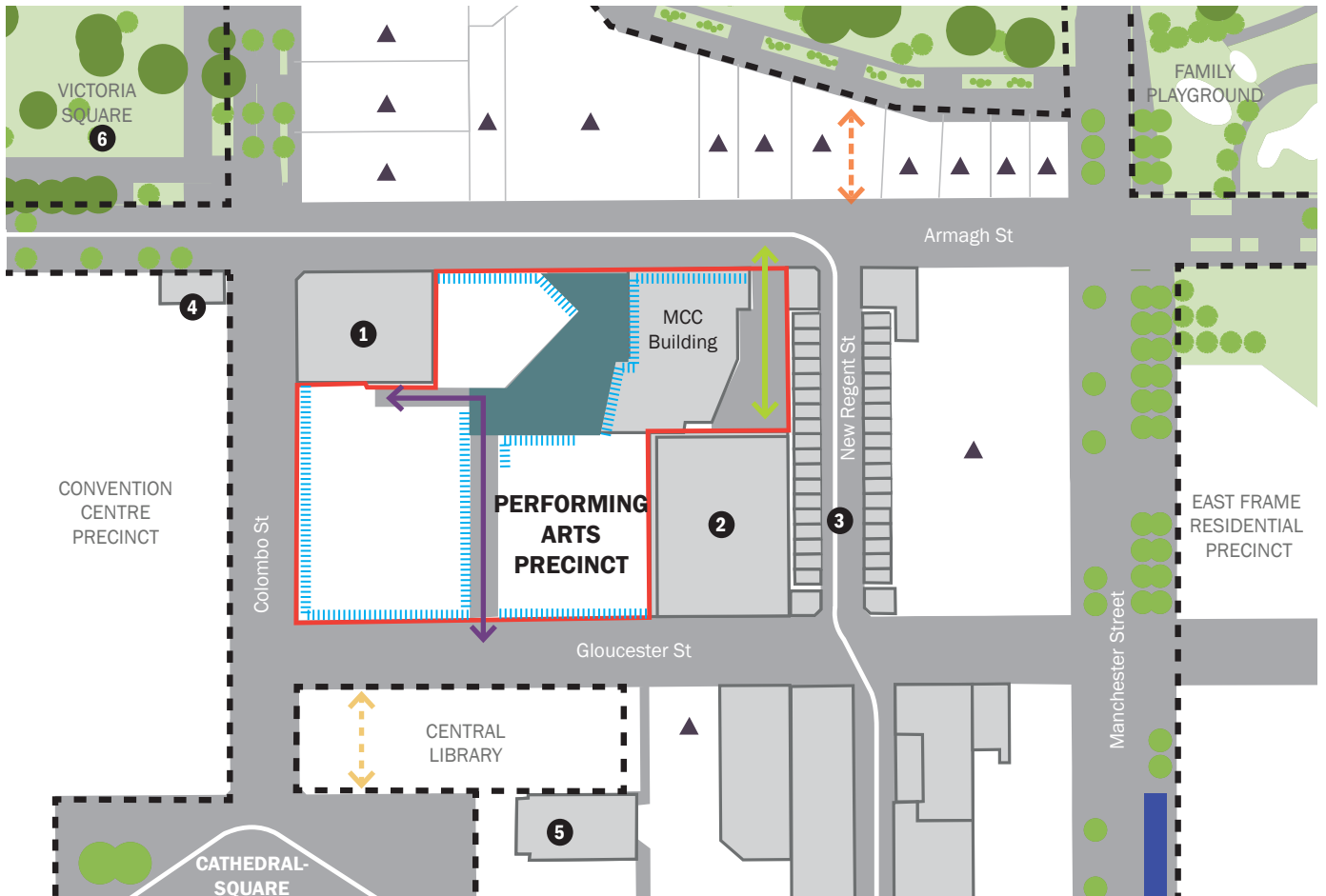
The initial scheme for the Precinct's public realm consists of a north-south lane off Gloucester Street and a shared courtyard. Among the key objectives for these spaces are to:

- create an arts-focused environment that reflects the Precinct's creative nature and where diverse cultural expressions can take place
- contribute to a vibrant precinct by day and night
- integrate infrastructure that supports cultural events – for example, power outlets, chair storage areas, screens, stage trusses, and lighting
- balance the inward nature of some of the uses with strategically located, outward-looking uses and activities that contribute to the vitality and surveillance of the Precinct
- contribute to the vitality and civic role of Colombo Street
- promote Gloucester Street as 'a street of theatres' that supports and complements the Isaac Theatre Royal.

The Performing Arts Precinct has frontages onto Armagh, Colombo and Gloucester streets. The design concepts for these streets are described on Chapter 5.

The wider network of lanes and courtyards in the central city and related design guidance are set out on Chapter 4.





Legend

KEY FEATURES

- Indicative courtyard layout
- Indicative vehicle and pedestrian lane
- Indicative service area
- Active frontage

EXISTING BUILDINGS

1. New Crown Plaza
2. Isaac Theatre Royal
3. New Regent Street
4. Isaac House
5. Novotel Hotel

RELATED PUBLIC PLACES

6. Victoria Square

RELATED ANCHOR PROJECTS

- Potential future link
- Manchester Street bus superstop
- Internal pedestrian link (indicative)
- Future development sites
- Tram route

Figure 87 Performing Arts Precinct.

Metro Sports Facility

Taiwhanga Rēhia

The Metro Sports Facility will be the premium destination for the city’s sporting and recreational activity, accessible to people of all ages and abilities.



Context

The Metro Sports Facility will be conveniently located close to other sport venues in Hagley Park including the new Cricket Oval and the existing netball courts. Its proximity to the new Health Precinct provides a unique opportunity for collaborations in areas such as sports medicine, sports science and research programmes.

The Metro Sports Facility site is bounded by Moorhouse Avenue and Antigua and St Asaph streets. Antigua and St Asaph streets are two of the priority cycling routes in the central city, offering cycle lanes separated from traffic.

The Facility is within walking distance of the new bus super stop on Tuam Street, as well as of Te Papa Ōtākaro/Avon River Precinct and the South Frame.

Overview

The Metro Sports Facility will be a leading destination for recreational, educational and high-performance sport, accessible to people of all ages, abilities and sporting skills. It will provide a range of aquatic and indoor sporting facilities, complemented by retail, food and beverage amenities.

One of the design intents for the Metro Sports Facility is to ‘put sports on display’ by providing visual connections from the street to the internal sporting activities.

The initial scheme for the Facility’s public realm consists of three main elements: **plazas, circuits** and **landscaped areas**.

The **plazas** mark the entries to the Facility, with the northern plaza being the main civic access and the plazas towards the middle of the block providing day-to-day access points.

The **circuits** consist of informal fitness loops around the perimeter of the site, integrating the Facility with its immediate context in a unique and engaging way. They create opportunities for active recreation and additional exercising options.

The **landscaped areas** correspond primarily to the car parking zones. They provide skilfully distributed large- and medium-scale vegetation and also

integrate water management strategies. This treatment helps diffuse the scale of the Facility, break up the extent of car parking areas, and collect, treat and distribute stormwater run-off.

Design objectives

- Contribute to the vitality of surrounding streets and public places.
- Integrate the Facility’s public realm design with the proposed streetscape concepts for adjacent streets. Concepts for St Asaph and Antigua streets are illustrated on pages 119 and 130 respectively.
- Create plazas of civic character that provide a meeting point and a welcoming place for visitors to the facility. Provide flexibility to host sport ceremonies and events. The network of plazas in the central city is explained on pages 70-71.
- Provide opportunities for formal and informal seating areas throughout the Facility’s public realm.
- Articulate the building façades to break up the scale of the building and contribute to the pedestrian scale of adjacent public realm areas.





Legend

KEY FEATURES

- Civic plaza
- Access plazas
- Circuits
- Landscaped areas
- Active frontage
- Future link
- Potential connection
- Coach dropp-off (indicative)

EXISTING BUILDINGS

1. Christchurch Hospital
2. Antiqua Boatsheds
3. Hagley Community College

RELATED PUBLIC PLACES

4. Cricket Oval
5. Ōtākaro/Avon River Promenade
6. Netball Courts

RELATED ANCHOR PROJECTS

7. South Frame – Health Precinct
8. Te Papa Ōtākaro Avon River Precinct
- Tuam Street bus super stop
- Major cycleways

Figure 88 Metro Sports.

Central Library

The new Central Library will be the primary library facility in Christchurch, a 21st century hub of knowledge and research in the heart of the city.



Context

At the intersection of Colombo and Gloucester streets, the Central Library will have a prominent address onto Cathedral Square, the city's main civic place.

The Central Library will be directly opposite the Convention Centre Precinct to the west and the Performing Arts Precinct on the north side of Gloucester Street.

The Library will be within walking distance of the bus super stop on Manchester Street.

Overview

The Central Library will be a distinctive civic building, offering state-of-the-art learning and information services and facilities for metropolitan Christchurch. It will provide a place for ideas and learning where people of all ages, abilities and cultures can be inspired and connected.

The design of the Library is being informed by the community's needs and aspirations, as identified by both 'Share an Idea' (2011) and 'Your Library Your Voice' (2014).

This project aims to attain international standing as a model for a contemporary library. Digital technology will be an integral part of the design along with interactive spaces including performance, exhibition, research, learning and entertainment areas.

The design of the building will make an important contribution to the quality and character of adjacent public spaces.

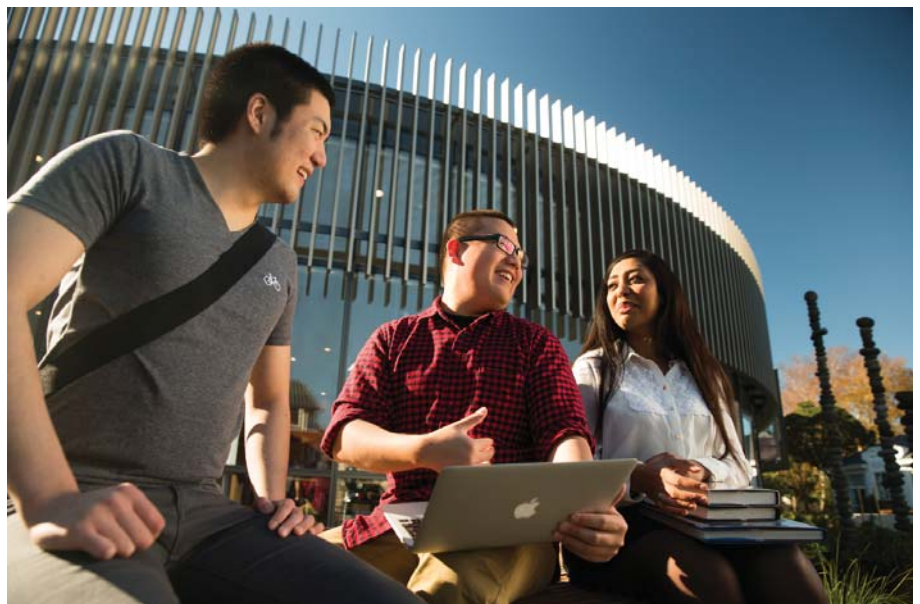
The civic and social nature of the Library provides ideal conditions for integration with adjacent anchor projects and areas of the public realm, in particular Cathedral Square.

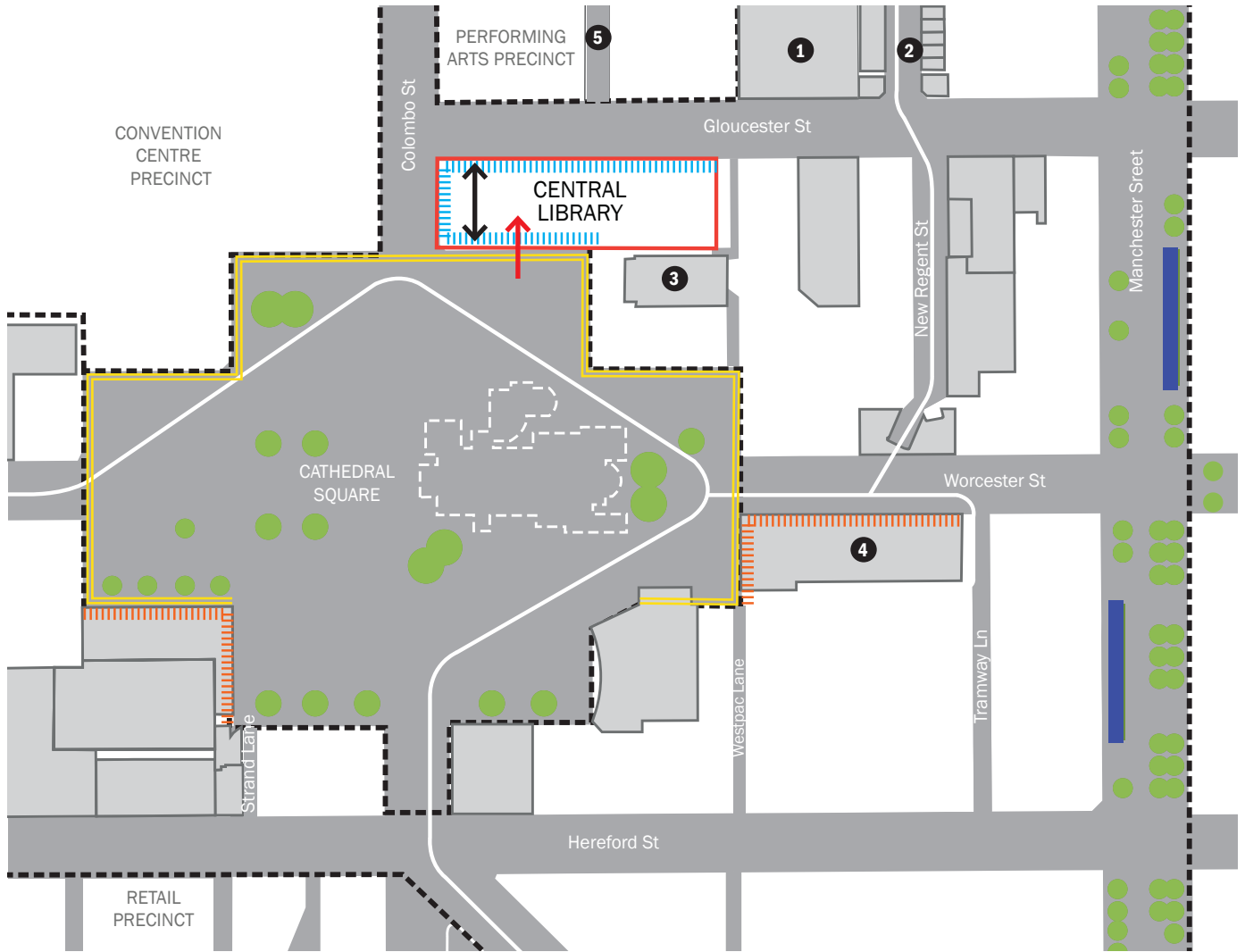
Design objectives

- Design building frontages to enhance the pedestrian amenity and civic character of Colombo Street and Cathedral Square.
- Select and locate uses at the ground and lower levels of the building to contribute to the vitality, surveillance and activation of Cathedral Square and adjacent streets.

- Define the building boundary to maintain the characteristic cruciform shape of Cathedral Square.
- Strategically locate entry points to the building to generate movement patterns that activate Cathedral Square.
- Promote and allow for spill-out of activities in the Library onto Cathedral Square.
- Locate vehicular access points and service areas to minimise any negative effects on the pedestrian amenity of the surrounding public spaces.
- Use façade articulation and material treatments to add to the visual amenity and attractiveness of Cathedral Square.

Design concepts for Colombo and Gloucester streets are illustrated on Chapter 5.





Legend

- ||||| High quality frontage/active uses
- Clearly define the cruciform shape of the square
- ← Preferred pedestrian entrance
- ||||| Fascades of heritage interest
- ↔ Ground floor connection

- EXISTING BUILDINGS**
1. Isaac Theatre Royal
 2. New Regent Street
 3. Novotel Hotel
 4. Heritage Christchurch Hotel

- RELATED ANCHOR PROJECTS**
5. Performing Arts Precinct indicative lane
 - Manchester Street bus superstop
 - Other buildings
 - Tram route

Figure 89 Central Library.

South Frame

Pūtahi Whakatetonga

The South Frame will provide definition to the Core through city blocks with an ‘urban campus’ character organised around a new network of green public spaces.

Context

The South Frame consists of eight city blocks south of the city core between Hagley Avenue and Madras Street. This area is made of sites of varying sizes and shapes held in multiple ownerships.

The existing urban fabric in the South Frame is relatively sparse with a number of vacant sites and remaining buildings dispersed throughout. Existing buildings consist of pre-earthquake warehouse and industrial buildings, small office buildings and car-sales centres.

The South Frame neighbours with a number of the Anchor Projects including the Metro Sports Facility, Te Papa Ōtākaro Avon River, Justice and Emergency Services and Stadium precincts, the Bus Interchange and the East Frame.

Tuam and St Asaph Streets are the major movement and access routes to the area. There will be a bus super stop on Tuam Street between Hagley Avenue and Antigua Street.

Overview

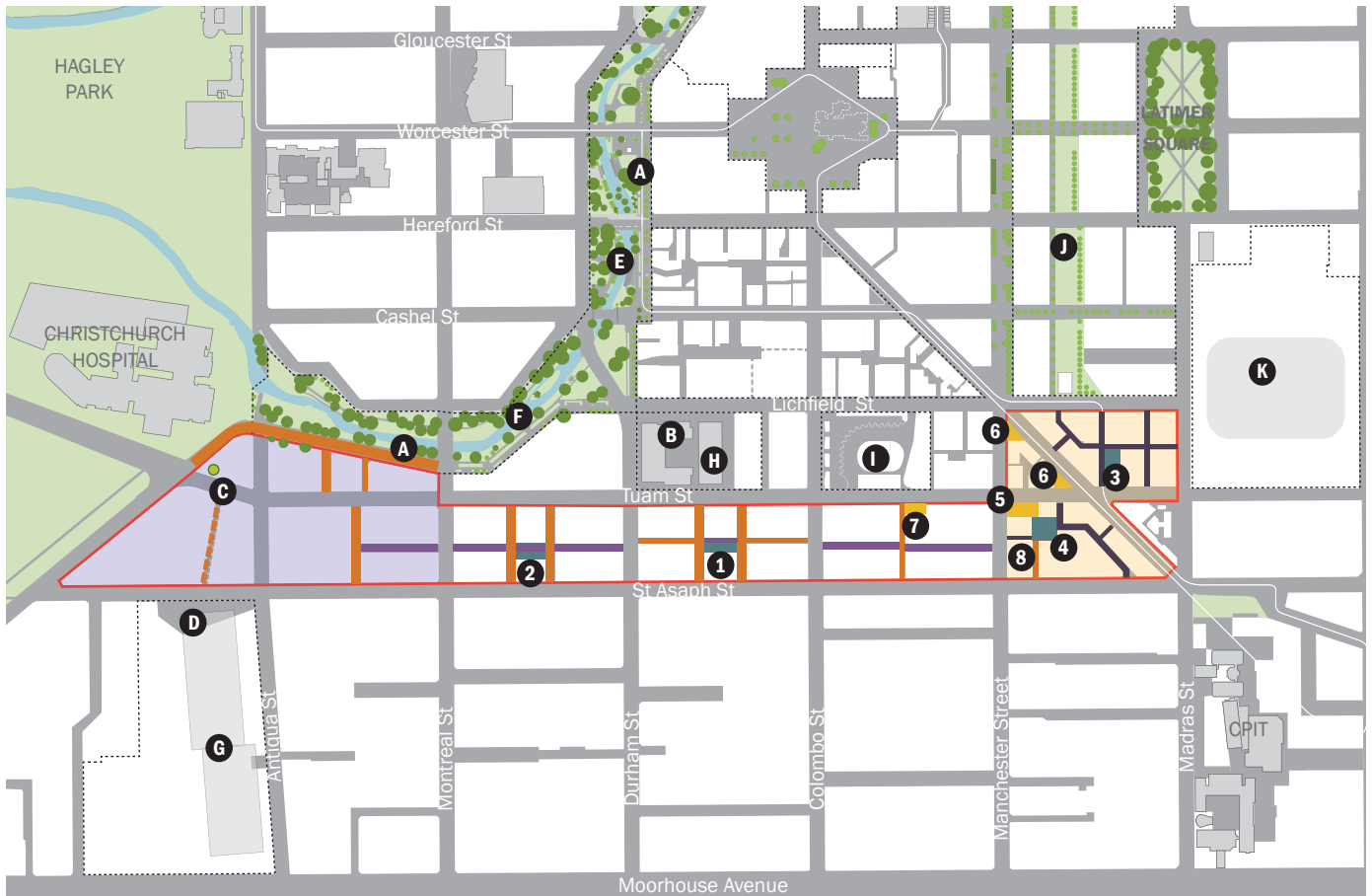
The South Frame Anchor Project consists of creating a new network of public realm in what have historically been large and inaccessible city blocks. This new network will generate a permeable and green urban environment and establish a foundation for private sector redevelopment.

The new public realm is designed to support an ‘urban campus’ character which consists of well-delineated city blocks where buildings define and enclose inner-block open spaces.

The South Frame has three distinct areas as illustrated in Figure 89:

- **The Innovation Precinct** aims to establish a technology-based industry and research precinct to attract new business and employment opportunities in high-value industry sectors. This precinct brings together commercial, creative and entrepreneurial uses such as the information technology hub EPIC (Enterprise Precinct and Innovation Campus).
- **The blocks between Montreal and Manchester streets** will promote residential, educational and small-scale office and studio style spaces and generally activities and uses that do not compete with the uses planned for the city core. These blocks will connect and support the Health and Innovation precincts with a reconfigured bold and green urban fabric that celebrates the areas’ industrial past.
- **The Health Precinct** will bring together key institutions involved in health services, education, research and professional development near Christchurch Hospital. The co-location of these institutions seeks to link more effectively the health system with private research, services and industry to commercialise health technology products and services.





Legend

<ul style="list-style-type: none"> Health Precinct Innovation Precinct NEW PUBLIC REALM The greenway Shared streets Indicative link Innovation Precinct lanes COURTYARDS 1. Mollet Street courtyard 2. South courtyard 3. Poplar-Ash courtyard 4. Innovation courtyard 	<ul style="list-style-type: none"> PLAZAS 5. Innovation plaza 6. Triangular plazas 7. Scoular Park Protected tree 8. Enterprise Precinct and Innovation Campus (EPIC) 	<ul style="list-style-type: none"> RELATED PUBLIC PLACES A. Ōtākaro/Avon River Promenade B. Justice and Emergency Services Precinct plaza and courtyard C. Tuam Street bus superstop D. Metro Sports Facility plaza (indicative) 	<ul style="list-style-type: none"> RELATED ANCHOR PROJECTS E. Te Papa Ōtākaro Avon River Precinct F. Earthquake Memorial G. Metro Sports Facility H. Justice and Emergency Services Precinct I. Bus Interchange J. East Frame Residential Precinct K. Stadium Precinct Tram route
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Figure 90 South Frame Precinct

South Frame (continued)

Pūtahi Whakatetonga

The proposed new public spaces within the South Frame consist of a network of streets, lanes, courtyards and plazas which connect to the city's wider public realm network:

The greenway: a series of generously landscaped east-west pedestrian and low-speed cycling links which create a green corridor between the East Frame, Hagley Park and the Te Papa Ōtākaro/Avon River Precinct .

North-south links: a number of new shared streets between Tuam and St Asaph Streets which improve the permeability and access to the South Frame blocks.

Lanes: pedestrian and cycle connections through the Innovation Precinct.

Further detail on the greenway and the north-south links and lanes is provided on Chapter 5.

Courtyards

- **Mollet Street courtyard:** This courtyard will provide a meeting and socialising place for local office workers, residents and visitors to the city. Key features of the courtyard will be ample formal and informal sitting options and generous vertical and horizontal landscaping. Mixed-use residential development is a desirable use to establish in this area. The courtyard should provide amenity for potential residents including after hours and weekend activities.

- **South courtyard:** This courtyard will be popular as an informal socialising place, especially amongst office workers. Its design will look to accommodate food trucks, street traders and events.
- **Poplar-Ash courtyard:** located at the junction of Poplar Lane and Ash Street, it will provide a fitting entrance to adjacent office buildings. The courtyard will provide an 'outdoor meeting room' for surrounding offices and businesses.
- **Innovation courtyard:** this courtyard will have multiple access points through the extensive and intricate laneways network in the area. The intimate scale of this courtyard is a point of distinction. Its design and activities should emphasise containment. This space will work well with strung installations and projections on the walls. Activities will celebrate innovation, creativity and ideas.

The emerging network of lanes and courtyards in the central city and related design guidance are set out on Chapter 4.

Plazas

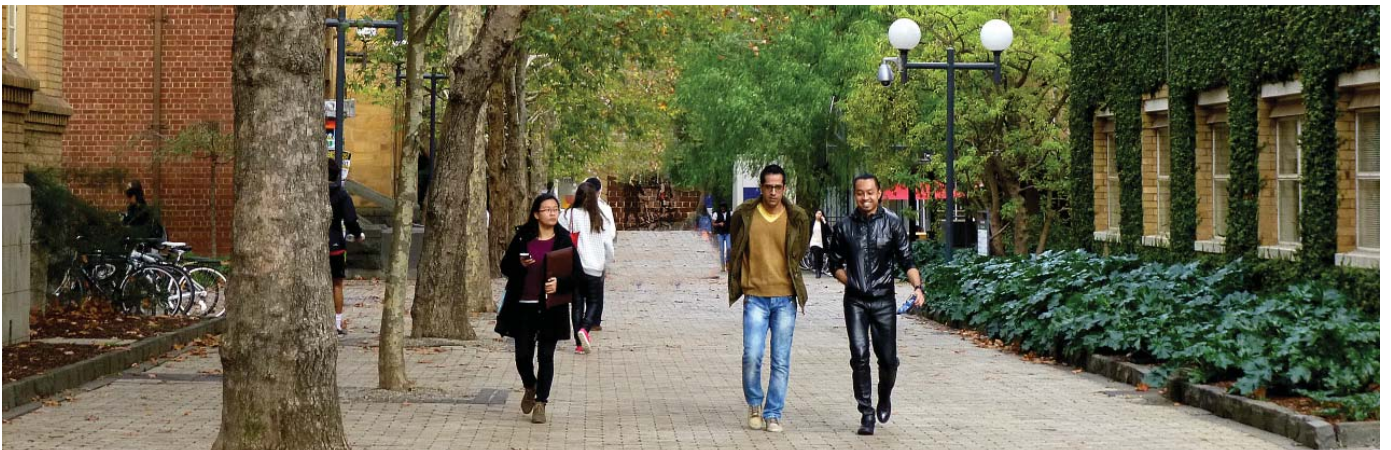
Plazas will signal main entry points to the Innovation Precinct.

- **Triangular Plazas:** these are two of the triangular plazas identified in Chapter 4 which mark the intersection of the city grid with the diagonal 'gateway streets' in the central city, namely High and Victoria Streets. As highly visible places, they are well suited for statement elements and public art. Their design should be flexible to allow for relocatable elements and regular changes to their layout.
- **Innovation Plaza:** a transitional place at the intersection of Tuam and Manchester streets.

The emerging network of plazas in the central city is illustrated on pages 70-71.

Streets: The South Frame interfaces with many of the streets in the central city. The design concepts for streetscapes in the central city are illustrated in Chapter 5.





The Square

Te Rīpeka

Cathedral Square will be re-established as the civic heart of Christchurch. It will be more vibrant, comfortable, accessible, safer and greener.



Context

Located at the junction of Colombo and Worcester streets, the two main axes of the city grid, Cathedral Square is the geographic and civic centre of Christchurch.

Traditionally the buildings around the Square have defined its unique cruciform shape. Only a few of these buildings remain, as illustrated in Figure 90. The new Convention Centre Precinct and the Central Library will redefine part of the northern boundary of the Square.

The Cathedral building, at the centre of the space, has been another distinctive feature of Cathedral Square. It is proposed that the Cathedral will be either rebuilt or replaced and integrated into the Square.

Overview

A specific design proposal for the Square is yet to be developed. The transformation of the most significant civic place in the central city requires a thorough public engagement process to meet the collective expectations for the Square.

Design objectives

- Maintain and strengthen the civic character of the Square, reinstating it as the natural place for the citizens to congregate and celebrate.
- Reflect the ethos of the city, its heritage and culture, and its resurgence as an inclusive, contemporary and progressive city.
- Create a vibrant place for people, by day and night, all year round.

Access and movement

- Create a pedestrian-oriented place, while integrating the various modes of travel that converge at the Square.
- Maintain access to individual properties and businesses and connectivity for travel modes.
- Promote pedestrian links into the Square to improve pedestrian access and activate the corners of the space
- Create a setting for the Cathedral, Central Library and Convention Centre Precinct.

Edges

- Ensure buildings around the Square continue to define its characteristic cruciform shape.
- Promote building frontages that open onto the Square to support increased activity and improved public safety through passive surveillance of the space.
- Promote well-articulated building frontages which use quality materials that contribute to the visual amenity and attractiveness of the Square.

Uses and activities

- Design the Square to support large events such as New Year's Eve celebrations and everyday activities such as outdoor dining, sightseeing, buskers, markets and displays.
- Provide opportunities for adjacent anchor projects to extend their activities into the Square on a regular basis.
- Create a coherent and inspiring place made of a series of sub-spaces that work well individually.
- Integrate facilities that support large and small events, such as storage space and power and water outlets.
- Provide ample formal and informal seating opportunities.
- Consider the addition of small pavilions which activate the space and provide sheltered west facing spaces. For example, food pavilions.

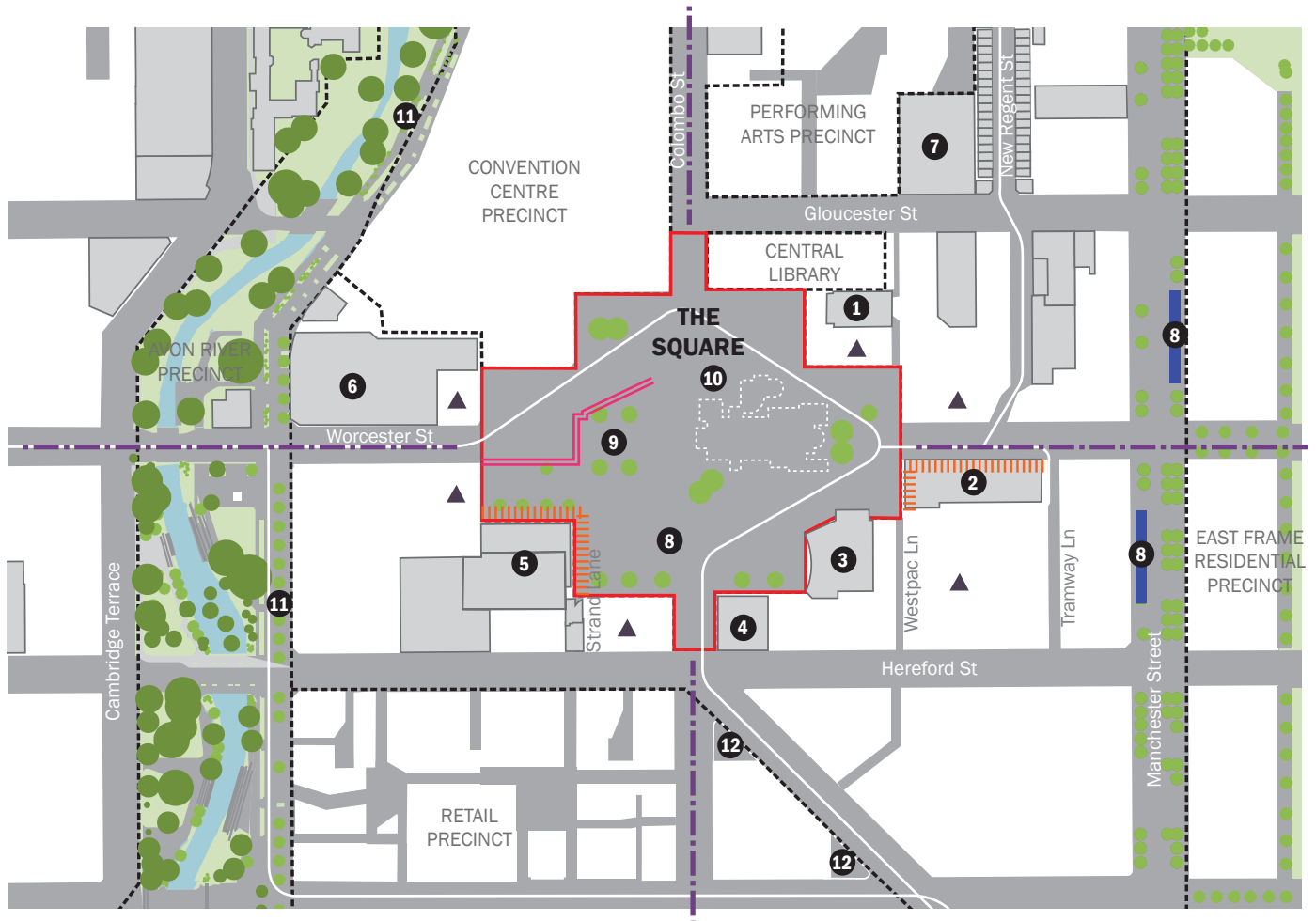
Scale and enclosure

- Ensure surrounding buildings positively contribute to the climatic comfort of the Square, allowing for solar access and avoiding induced wind draughts.

Landscape

- Increase opportunities for greenery, while maintaining the Square's capacity to host large-scale civic events and performances.
- Integrate into the design the long views along Colombo and Worcester streets, and the short views to buildings of heritage interest.
- Allow for sunny, shaded, sheltered and open areas that support activity throughout the seasons.





Legend

EXISTING FEATURES

- Existing level change
- Existing tree
- Tram
- Facades of heritage interest
- Civic axis

EXISTING BUILDINGS

1. Novotel Hotel
2. Heritage Christchurch Hotel
3. Former Millenium Hotel
4. BNZ building
5. Visitors Centre building
6. Former Rydges Hotel
7. Isaac Theatre Royal

EXISTING PUBLIC ARTWORKS

8. Chalice (Neil Dawson, 2000)
9. Godley Statue (Thomas Woolner, 1865)
10. The Centotaph (William Trethewey, 1937)

RELATED PUBLIC PLACES

11. Ōtākaro/Avon River Promenade
 12. Triangular plazas
- RELATED ANCHOR PROJECTS**
- Future development site
 - Manchester Street bus superstop
 - Tram

Figure 91 The Square Anchor Project.

Stadium Precinct

Taiwhanga Hākinakina

The Stadium Precinct will provide a multipurpose, state-of-the-art, sports and entertainment venue for local, regional and international events.



Context

The Stadium Precinct will be located to the east of the Frame over two-and-a-half city blocks between Hereford, Tuam, Madras and Barbadoes streets. It neighbours the South Frame Innovation Precinct and the East Frame residential Precinct. The Transitional Cathedral is located within the same city block.

The location for the Stadium was strategically selected for its proximity to public transport and vehicular access routes. The new Bus Interchange on Lichfield Street and the bus super stop on Manchester Street are both within walking distance of the Stadium. There is opportunity for a local bus stop on Hereford Street. Madras and Barbadoes streets are main distributor streets which have general traffic priority.

The precinct bookends the east section of Cashel Street, providing a civic counterpoint to the Bridge of Remembrance, the Ōtākaro/Avon River and Hagley Park in the west.

Food and entertainment venues along High Street and the Retail Precinct will enhance the overall experience of patrons of the Stadium, offering nearby pre- and post-event activity choices.

Overview

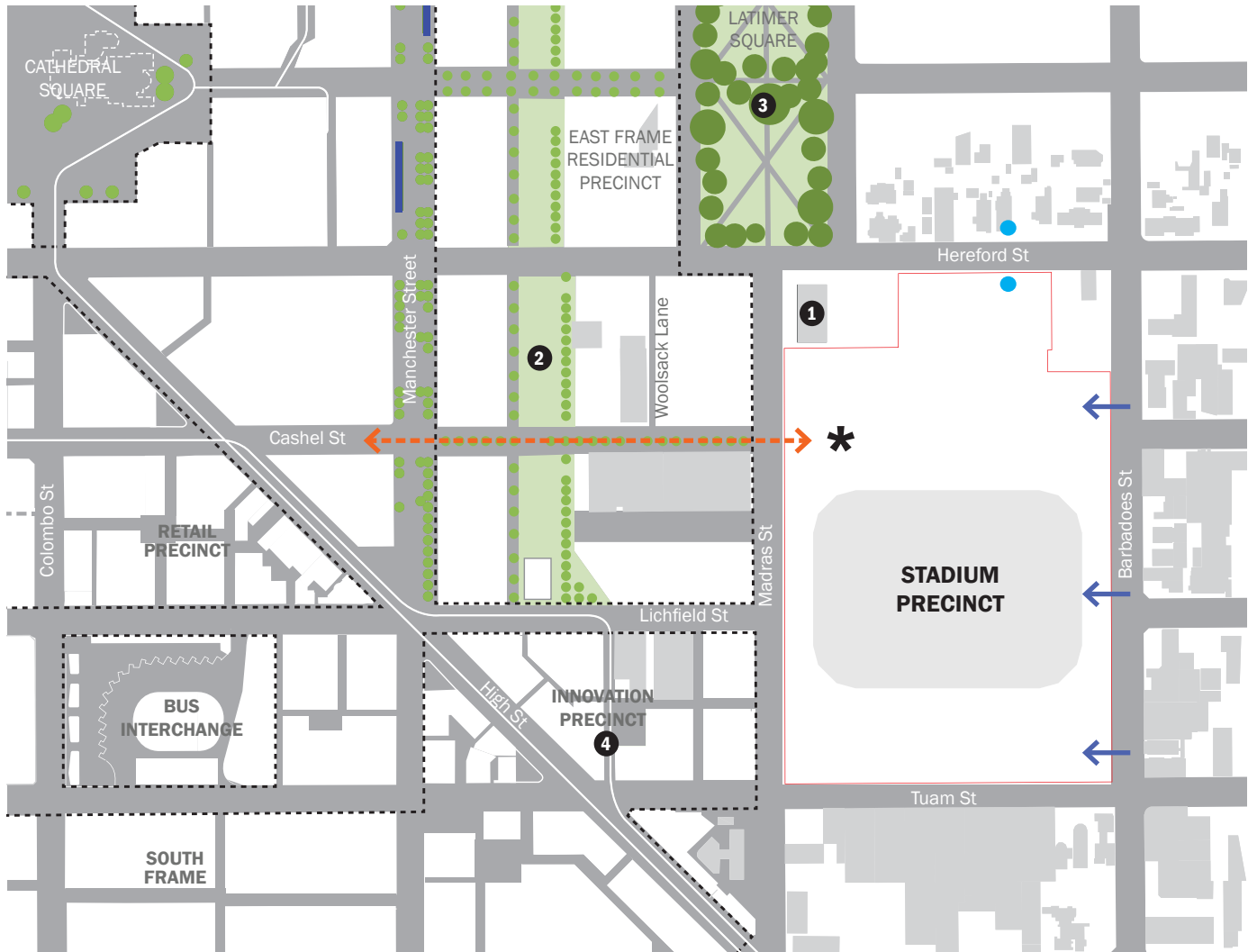
The Stadium Precinct will assist in positioning Christchurch as the number one venue for sporting and entertainment events in the South Island.

Design objectives

- Create a precinct that reflects and integrates with the central city context and is a positive addition to the city's civic infrastructure.
- Create a landmark and civic termination to the Cashel Street axis to the Bridge of Remembrance. This axis forms a waharoa (gateway), signifying a wero (challenge) from past warriors to modern day gladiators.
- Provide a location for pōwhiri (welcoming ceremonies).





- Design the precinct's public realm to be interesting and welcoming during event and non-event modes. The public realm should be able to accommodate large crowds but also be intimate for small events or during off-season periods.
- Provide visible and distinct elements in public realm areas that people can use for wayfinding and as meeting points.
- Consider areas for shelter during inclement weather.
- Provide ample formal and informal sitting options.
- Ensure a seamless transition and integration with the proposed streetscapes for surrounding streets. The streetscape concept designs for adjacent streets are illustrated in Chapter 5.
- Use main distributor roads for vehicular and service access points to the precinct
- Consider compatible uses and activities in the precinct that do not compete with the uses planned for the city core.





Legend

KEY FEATURES

-  Civic termination
-  Indicative carparking entrance (preferred location)
-  Bus stop (potential location)
-  Connection to the Bridge of Remembrance

 **EXISTING BUILDINGS**

- 1. Transitional Cathedral
- RELATED PUBLIC PLACES**
- 2. East Frame Central Park
- 3. Latimer Square
- 4. Innovation Precinct lanes

 **RELATED ANCHOR PROJECTS**



-  Manchester Street bus superstop
-  Tram route

Figure 92 Stadium Precinct.



“The rebuilding of the central city provides an exceptional opportunity to improve the quality of life for the people of Christchurch for generations to come”

Skye Duncan

07

IMPLEMENTATION
Te Whakatinantanga

Implementation

The Public Realm Network Plan is essential to support the successful implementation of the Christchurch Central Recovery Plan, and the economic and social recovery of the central city in general.

The Public Realm Network Plan is a non-statutory document providing strategic and technical guidance for anyone involved in the design and delivery of public realm improvement projects in the central city - both during the recovery phase and into the future.

In the early stages of the central city rebuild this plan will be instrumental in influencing the public realm outcomes of the anchor projects and the first phase of the An Accessible City transport projects.

Christchurch City Council and the Crown have committed to the delivery of the anchor projects and the first phase An Accessible City projects.

Subsequent phases of work required to give effect to the objectives of An Accessible City are subject to Council and Crown Business Case processes which include funding. Funding for eleven First Phase projects has been achieved; these projected have been prioritised to align with the delivery of key anchor projects and essential transport network projects.

Along with Council and Crown funding of An Accessible City projects, the New Zealand Transport Agency also contribute according National Land Transport Fund criteria.

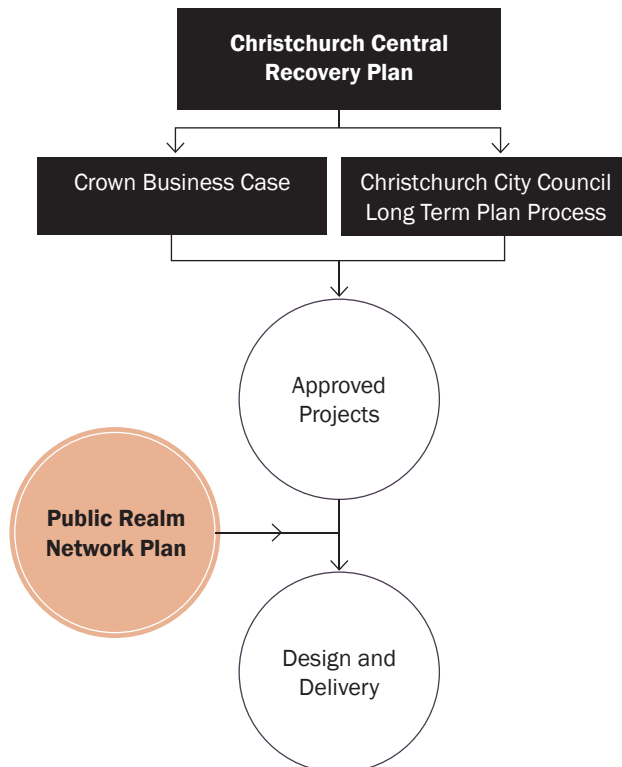
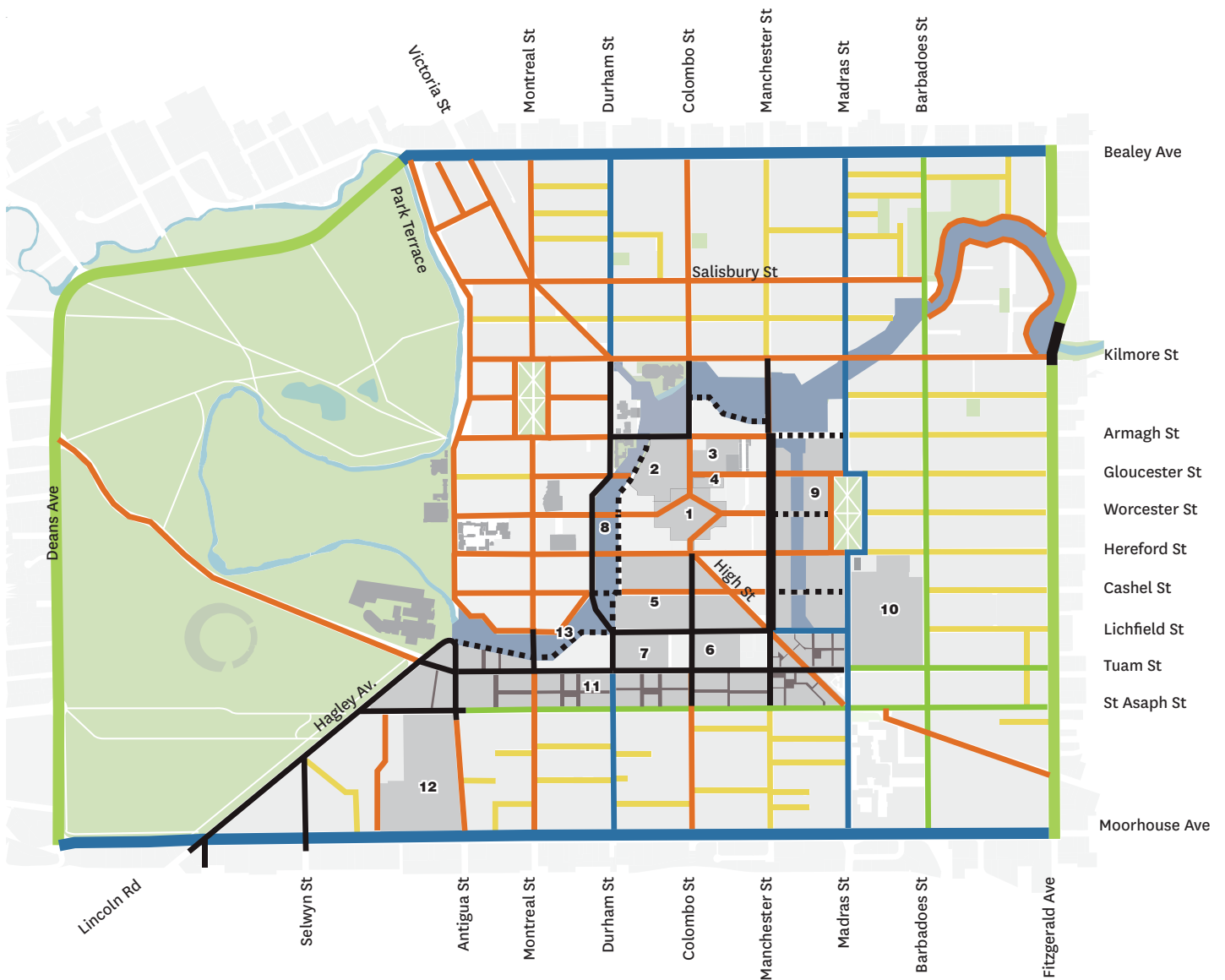


Figure 88 Public realm improvement implementation process



Legend

FIRST PHASE

- AAC Phase 1 Transport Projects
- AAC Phase 2 Projects
- AAC Phase 3 Projects
- AAC Phase 4 Projects
- AAC Phase 5 Projects
- Anchor Project - Ōtākaro/ Avon River Precinct & East Frame Public Realm
- Anchor Project - South Frame Public Realm

ANCHOR PROJECTS

1. The Square Precinct
2. Covention Centre Precinct
3. Performing Arts Precinct
4. Central Library
5. Retail Precinct
6. Bus Interchange
7. Justice and Emergency Services Precinct
8. Te Papa Ōtākaro/ Avon River Precinct
9. East Frame Residential Precinct
10. Stadium Precinct
11. South Frame
12. Metro Sport Facility
13. Earthquake Memorial

Figure 89 Public realm projects - indicative phases of delivery

List of figures

Figure 1	Strategic guidance book chapters. This icon appears in most standard pages, as shown below. It highlights key related chapters.	11
Figure 2	Reference elements in a standard page of the strategic guidance book.	11
Figure 3	Public realm diagram	15
Figure 4	Public Realm Network Plan Application Area	19
Figure 5	Existing and proposed public realm network.	20
Figure 6	Existing public realm network.	21
Figure 7	Proposed public realm spaces.	21
Figure 8	Central city gathering places and street network	23
Figure 9	Illustrative public realm network vision	27
Figure 10	Public realm network plan design principles	29
Figure 11	Pre-earthquake, current and projected resident and worker populations in the central city.	32
Figure 12	Indicative distribution of land uses across the city as expected in the Recovery Plan.	33
Figure 13	Traffic congestion in the central city is likely to increase without Accessible City initiatives.	35
Figure 14	Accessible City seeks to support increased activity and movement without worsening traffic congestion.	35
Figure 15	Indicative diagram showing integration of existing and new infrastructure	37
Figure 16	Example of a typical street in the central city, wide carriage ways, lack of pedestrian scale and amenity.	39
Figure 17	Example of proposed change. Street where trees have been introduced in the carriage way. Improved amenity for all users.	39
Figure 18	Central Christchurch existing and proposed gathering places.	61
Figure 19	Central Christchurch existing squares.	63
Figure 20	Central Christchurch existing and proposed parks.	65
Figure 21	Central Christchurch existing and proposed courtyards.	69
Figure 22	Central Christchurch existing and proposed plazas.	71
Table 1:	Pedestrian-focused street types	72
Figure 23	Central Christchurch existing and proposed pedestrian focused streets.	73
Figure 24	Central Christchurch existing and proposed pedestrian priority and shared streets.	75
Figure 25	Central Christchurch existing and proposed lanes	77
Figure 26	An Accessible City - Central City Road User Hierarchy	81
Figure 27	Spatial area distribution - ONE PERSON	82
Figure 28	Spatial area distribution - ONE STREET, maximum capacity	83
Figure 29	Walking network	85
Figure 30	Illustrates the proposed cycling network for greater Christchurch and how it connects with the key cycle routes in the central city. A key aspect of integration is designing safe cycle crossings at entry points to the central city across the avenues.	87
Figure 31	Cycle network	89
Figure 32	Public transport network	91
Figure 33	Tram network	93
Figure 34	Christchurch major arterial road network	95
Figure 35	Central city general traffic network	97
Figure 36	Central city over-dimensional routes	99
Figure 37	Over-dimensional envelope	99
Figure 38	Proposed street trees	101
Figure 39	Proposed pavement treatments	105
Figure 40	Widths and clearances for street cross sections	107
Figure 41	Recommended street cross-sections	109
Figure 42	Colombo Street (core)	111

Figure 43	Colombo Street south of Lichfield Street	111
Figure 44	Victoria Street	113
Figure 45	Montreal, Durham, Madras and Barbadoes streets	115
Figure 46	Tuam Street west of High Street	117
Figure 47	C1- St Asaph Street, west of High Street	119
Figure 48	C2 - St Asaph Street at Metro Sports Facility	119
Figure 49	Colombo Street (north), Salisbury Street and Ferry Road	121
Figure 50	Kilmore, Gloucester and Hereford streets and Manchester Street (outer core)	123
Figure 51	Manchester Street (inner zone)	125
Figure 52	Oxford Terrace - The Ōtākaro/Avon River Promenade	127
Figure 53	Lichfield Street at Bus Interchange	129
Figure 54	Antigua Street at Metro Sports	131
Figure 55	Cambridge Terrace	133
Figure 56	Park Terrace north of Armagh Street	135
Figure 57	Hagley Avenue - South of Selwyn Street	137
Figure 58	Latimer and Cranmer squares - west boundary	139
Figure 59	Latimer and Cranmer squares - east boundary (Montreal and Barbadoes streets)	139
Figure 60	B1 - Existing cross-section City Mall	141
Figure 61	B2- Existing cross-section Worcester Boulevard	143
Figure 62	B3 - Proposed cross-section Armagh Street east of Colombo Street	143
Figure 63	B4- Existing cross-section High St north of City Mall	145
Figure 64	B5 - Existing cross-section High St south of Tuam Street	145
Figure 65	South Frame - Greenway	147
Figure 66	South Frame two way 12.5m shared street	149
Figure 67	South Frame two way 10m shared street	149
Figure 68	Poplar Street, one-way lane	151
Figure 69	Innovation Precinct, one-way lane	151
Figure 70	Moorhouse, Bealey and Fitzgerald avenues - typical existing cross-section	153
Figure 71	The Recovery Plan Anchor Projects.	157
Figure 72	Artist impression, the promenade.	158
Figure 73	Te Papa Ōtākaro/Avon River Precinct.	159
Figure 74	Artist impression, the promenade.	161
Figure 76	Artist impression, the river walk (Avon loop).	161
Figure 75	Artist impression, the promenade (Retail Precinct).	161
Figure 77	Artist impression, Margaret Mahy family playground.	161
Figure 78	Artist impression, the promenade.	162
Figure 79	East Frame Central Park	163
Figure 80	Artist impression, Justice and Emergency Services Precinct plaza.	164
Figure 81	Justice and Emergency Services Precinct.	165
Figure 82	Artist impression, Bus Interchange plaza.	166
Figure 83	Bus Interchange.	167
Figure 84	Retail Precinct.	169
Figure 85	Convention Centre Precinct.	173
Figure 86	Performing Arts Precinct.	175
Figure 87	Metro Sports.	177
Figure 88	Central Library.	179
Figure 89	South Frame Precinct	181
Figure 90	The Square Anchor Project.	185
Figure 91	Stadium Precinct.	187
Figure 88	Public realm improvement implementation process	190
Figure 89	Public realm projects - phases of delivery	191

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Cover	City Mall, Christchurch (New Zealand) CERA 2012
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Page 74	City Mall, Christchurch (New Zealand) Melizza Morales-Hoyos, 2013
Page 76	Sydney (Australia) Melizza Morales-Hoyos, 2014
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Page 103	<p>Turkish Hazel. http://www.plantoregon.com/images/products/CoryluscolumnaTREE.jpg</p> <p>English Oak. http://s0.geograph.org.uk/geophotos/04/03/89/4038950_17e2bd23.jpg</p> <p>Red Maple. CERA 2014</p> <p>Rewarewa. http://upload.wikimedia.org/wikipedia/commons/thumb/1/1f/Knightia_excelsa_11.JPG/220px-Knightia_excelsa_11.JPG</p>
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Page 174	<p>Ballerina Mural (Owen Dippie) Christchurch (New Zealand) Melizza Morales-Hoyos, 2014</p>
Page 178	Christchurch (New Zealand) CERA 2014
Page 180	New York USA Melizza Morales Hoyos, 2009
Page 183	<p>Left to right</p> <p>Sydney (Australia) Sophie Connell, 2012</p> <p>Wellington (New Zealand) Sophie Connell, 2011</p> <p>Melbourne (Australia) Melizza Morales-Hoyos, 2014</p> <p>New York (USA) Skye Duncan, 2013</p> <p>Melbourne (Australia) Melizza Morales-Hoyos, 2014</p>
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Streets and Spaces Design Guide

Schedule of Changes 2015.03.11

Page	Change	Requested by
Whole Document	Title of document changed - PRNP references replaced for Streets and Spaces Design Guide or this plan for this design guide	Councillors
Page 5, 26	Added 'creative' under vibrant key theme	Councillors
Page 28, 29, 50	Added 'creative and inviting' to design principles	Councillors
Page 48	Guidance in relation to night sky included: Protect the night sky and reduce lighting pollution. Avoid unnecessary light at night. Protect and promote the cultural, educational, scientific and recreational value of Christchurch nightscape.	Councillors
Page 50	Text amended to be specific to children: Provide active play and recreation opportunities for childhood children development and senior enjoyment	Councillors
	Added criteria: <ul style="list-style-type: none"> • Promote a child-friendly city. Improve the accessibility, quality and quantity of structured and unstructured play spaces and play opportunities in the central city. • Support the Transitional City Programme 	Councillors
Various Pages	Other detailed changes: <ul style="list-style-type: none"> • Minor text and plan amendments to ensure consistent use of language and correct inaccuracies; • Inclusion of Te reo equivalent titles/ headings; • Web links and references added for the wider bus network and CCC Lanes Design Guide; • Updates to the tree species; and, • Earthquake Memorial added to Anchor Projects chapter 	-

In relation of comments from Council public workshop, note:

In relation to **lighting**, related guidance already in the document:

- Provide lighting to create safe and attractive spaces for people at night. (page 46)
- Use lighting to contribute to the character of the public realm network. (page 49)
- Apply Crime Prevention through Environmental Design (CPTED) principles. Ensure spaces are overlooked, well lit and maintained. (page 53)

In relation to **creativity, art and temporary uses**, related guidance already in the document:

Streets and Spaces Design Guide

Schedule of Changes 2015.03.11

- Promote temporary activation of space. (page 49)
- Use lighting to contribute to the character of the public realm network. (page 49)
- Permit non-standard treatments where appropriate to reinforce identity, distinctiveness and character.(page 49)
- Encourage creative designs that engage and stimulate people of all ages. (page 50)
- Promote well-integrated and cultural and place-responsive public art including collaboration with and engagement of Ngāi Tahu artists (page 50)
- Design the public realm network as a safe system for all users, particularly more vulnerable groups (children, the elderly, those with disabilities) as well as the more vulnerable transport modes (walking, bicycling) – by day and by night. (page 53)

In relation to **play and children** in the central city, related guidance already in the document:

- Provide opportunities for people to engage with natural processes and for children to learn about nature through observation. For example, safe areas to investigate in stream habitats, boardwalks, bird watch areas, contemplative seating, nature play spaces, community orchards, areas to harvest and work harakeke and other fibre plants. (page 49)
- Create meaningful and inclusive places that provide safe and easy access for all user groups including; children, youth, elderly and people with disabilities or limited mobility. (page 50)
- Design streets and gathering places for a variety of functions including commuting, relaxation, play, social interaction, whānau gathering, recreation, business, art and architecture. (page 50)

INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE - 2. 4. 2015

8. DRAFT CHRISTCHURCH CENTRAL PARKING PLAN

		Contact	Contact Details
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1. PURPOSE AND ORIGIN OF REPORT

- 1.1 The purpose of this report is to seek approval of the draft Christchurch Central Parking Plan (Parking Plan), **Attachment 1**, and to note that this is a live document and that staff will regularly monitor parking as the rebuild progresses. The report seeks approval for Council to delegate authority to the Infrastructure, Environment and Transport Committee to approve any recommended changes to the Parking Plan following quarterly monitoring by staff. This report provides a summary of feedback and recommendations from the public workshop, held in September 2014, on the draft Parking Plan, **Attachment 2**. The report also provides a brief overview of previous Council resolutions on the Lichfield and the Crossing car parks.
- 1.2 The draft Parking Plan forms part of the An Accessible City work programme. At the Council Meeting of 12 December 2013, Council received an update on An Accessible City and on two of its key parking facilities, the Crossing and Lichfield Street car parks. A Council Report provided an update to Council on parking in the Central City on 27 February 2014 (Agenda item 23). The Council were briefed on the draft Parking Plan on 19 May 2014 and requested that the plan is reported to the Earthquake Recovery Committee of the Whole for endorsement. At the 7 August Earthquake Recovery Committee, it was resolved that:
- "This report is referred to the Environment Committee meeting on 26 August with a view to set up a public workshop to discuss the plan with key stakeholders before it is endorsed by the full Council."*
- 1.3 A public workshop was held with the Environment Committee (the predecessor of the Infrastructure, Transport and Environment Committee) and key stakeholders on 9 September 2014. The draft Parking Plan was revised and the Infrastructure, Transport and Environment Committee were briefed on the draft Parking Plan on 5 March 2015.
- 1.4 The decision to be made on this report is considered to be of low to medium significance in relation to the criteria in the Council's Significance and Engagement Policy. The decision to approve the draft Parking Plan would have a low level of cost and impact on the community, however there is a medium level of community interest already around parking and the draft Parking Plan could be used to inform further Council decisions on the Council's strategic parking assets in the central city.
- 1.5 In accordance with section 76 of the Local Government Act 2002, this report also contains information on the community engagement undertaken to determine and consider, the views and preferences of interested parties and about the options considered as result of this consultation.

2. EXECUTIVE SUMMARY

- 2.1 The draft Parking Plan is a non-statutory, live document which is supported by a parking model. The draft Parking Plan forecasts the current and likely future (to 2041) parking demand and supply for the central city. This is based on the Urban Development Strategy projected land use scenario which shows the expected increase in the number of people living, working and visiting the central city. The data is used to estimate parking demand and supply for a range of activity types. Using this information, the draft Parking Plan identifies the likely locations of parking facilities needed to support the central city.

8 Cont'd

- 2.2 Short stay parking encourages people to visit the central city and helps to support people accessing the business, hospitality and retail sectors. The recommended priority for the Council is to focus on the delivery of short stay (visitor) parking rather than long stay (commuter) to encourage visitors and to support businesses. This may be through the rebuild of Council owned parking buildings, and provision of other parking areas and / or by working with the private sector to deliver parking. Long stay parking, as before the earthquakes, can be delivered through both private developments, shared public / private parking and by encouraging people to use other transport options.
- 2.3 The draft Parking Plan is intended to provide the key source of information for the Council, Crown and the development and business communities alike in gaining a shared understanding of ongoing parking needs and supply across the central city as it recovers. This information also enables the private sector to make informed decisions about their own parking provision and opportunities to be involved in the provision of private and public parking facilities.
- 2.4 The public workshop on the draft Parking Plan showed general support for the overall approach taken. Four key themes emerged for improvements. These were to: review the assumptions in the parking model; to urgently progress on the rebuild of Lichfield Street parking building; to provide more certainty around the role of the Council in parking and provision being provided by the Council and the Crown, especially in Anchor Projects; and for ongoing engagement with the business community on parking. In response, the assumptions in the parking model have been reviewed and the draft Parking Plan updated. The Council are also progressing demolition of Lichfield Street parking buildings, have released an Expression of Interest to gather information on options from the market on public parking provision in the central city and will be consulting with the public on whether the Council's off-street parking should remain a strategic asset for the Council.

3. BACKGROUND

- 3.1 The draft Parking Plan forms part of the An Accessible City work programme, shown in Figure 1. An Accessible City is the transport chapter contained within the Christchurch Central Recovery Plan. The draft Parking Plan plays an important part in the larger plan for An Accessible City by helping to make it easier for people, cars, bicycles and public transport to get to central Christchurch and move around. Development of the draft Parking Plan has been led by Council staff with input from the Christchurch Central Development Unit (CCDU) and key stakeholders.

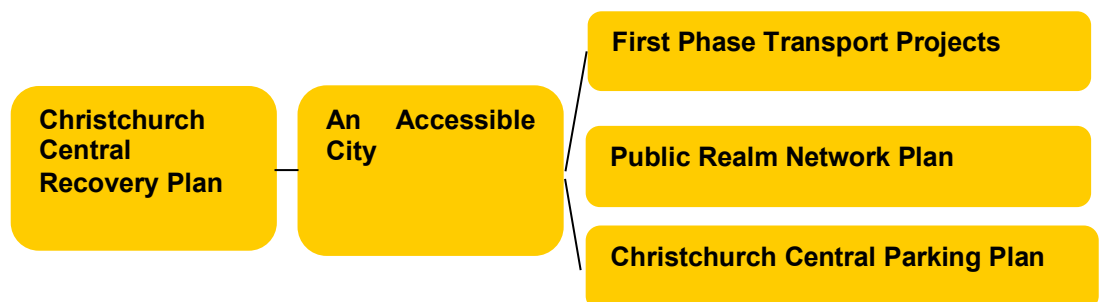


Figure 1: An Accessible City work programme.

Public workshop

- 3.2 A public workshop was held with the Environment Committee and key stakeholders on 9 September 2014. There was a good response to the workshop with around 75 participants, shown in **Attachment 2**. At the workshop an overview of the draft Parking Plan was given, this was followed by a workshop session, facilitated by Chris Mene. The process applied to the workshop gave the group an opportunity to co-create the frame of the workshop, giving them ownership over the issues discussed. The issues covered included the key topics within the draft Parking Plan. A summary of findings from the public workshop is in **Attachment 2**. Overall, there was general support for the approach taken, however four key themes emerged for improvements. These were:

8 Cont'd

- Parking in the context of the rebuild is a complex issue. There is ambiguity and uncertainty around demand and supply. The parking plan starts to address this. However there are questions over the underlying assumptions for the demand and supply rates. The information should therefore be used to guide, not limit parking supply.
 - There is a desire for more certainty around the Council's role in parking and parking provision being provided by the Council and the Crown, especially in Anchor Projects.
 - There is an urgent need to provide for parking in the short term and to rebuild Lichfield Street parking building. Short term parking (from now to 2017/18) is needed to meet the needs of the retail precinct, government departments, returning organisations and the emergency services, health and justice precincts.
 - There needs to be ongoing engagement on parking, especially with the business community, which would support more effective planning and decision making on parking.
- 3.3 In terms of reviewing the assumptions and parking numbers in the model. This has been progressed, there is now an ongoing process to 'ground truth' the parking model assumptions against development as it occurs. A process has been established to review resource consents regularly and monitor actual parking supply rates in private developments compared to those in the model. This information can be used to understand if enough parking is being supplied. Much of the parking demand is generated by anchor projects. Staff are working with CCDU to obtain more certainty around how much parking is being supplied as part of these developments and how much of this will be available for public use.
- 3.4 To address the other key areas for improvement identified in the workshop staff have:
- Undertaken quarterly parking surveys on current parking provision.
 - Updated the Council's parking webpage, in particular 'how to find a park'.
 - Ongoing engagement with the business community on parking (through existing forums, meetings, website and email communication).
 - Progressed the demolition of Lichfield Street parking building.
 - Released an Expression of Interest to the market on public central city parking.
 - The role of Council in parking will be considered in future consultation on the Council's list of Strategic Assets in the Significance and Engagement Policy.

Lichfield Street and The Crossing parking buildings

- 3.5 There is urgency around the replacement of parking buildings, especially to support the Retail Precinct. The Lichfield Street parking building sustained considerable damage from the sequence of earthquakes between September 2010 and June 2011, but especially the February 2011 earthquake, after which it was vacated. The replacement of the Lichfield Street and The Crossing parking buildings are recognised as key priorities in the draft Parking Plan. Work on these is being progressed as separate programmes of work.
- 3.6 The Council committed to providing car parking at Lichfield Street and in the central city, on 12 December 2013 it was resolved that the Council:
1. *Re affirm its commitment to providing at least pre-earthquake levels of carparking in these two key Central City areas, and consider enhancing capacity where this does not impact on the wider network, or Council's ability to financially support this investment, on a case by case basis.*
 2. *Confirm its commitment to providing at least its pre-earthquake level of off street carparking in Lichfield Street and at the Crossing, on the sites that it owns, noting that it will consider opportunities for enhancement to support retail and business redevelopment in the blocks on a case by case basis.*

8 Cont'd

3. *Note that the future size and configuration of its car parks will need to ensure they integrate well with the network and land uses proposed in the Central City Recovery Plan, in a long term sustainable manner.*
 4. *Instruct Council staff to actively pursue resolution of the insurance claims on its car parks with its insurers, noting that the settlement of these, and the options, that flow from settlement have a significant ability to influence the speed of Central City recovery.*
 5. *Request that staff work with BCA to draft a Heads of Agreement in respect of car park facilities at The Crossing site and to provide a further report to Council in the New Year."*
- 3.7 On 22 May 2014 the Council entered into an agreement with Carter Group Ltd who will build a 534-space public car park on The Crossing site and operate and maintain it for 50 years as a public car park.
- 3.8 At a meeting on 12 June 2014 it was resolved that the Council establish a Sub-Committee mandated to make a decision on the Lichfield Street car park demolition. The Council established a Sub-Committee and on 3 July 2014 a resolution was passed to demolish the building. Tenders for the demolition of the building closed late last year. CCDU released the Retail Precinct Plan in December 2014 which outlines two development options to integrate the rebuild of Lichfield Street parking building with the Retail Precinct development. In February 2015 Council released an Expressions of Interest (EOI) process to the market to gather information on options for public parking provision in the central city.

4. COMMENT

- 4.1 Increased certainty about the current availability and future provision of parking in the central city is important for providing confidence in the rebuild of a thriving city. It is important for those working in the city, those wishing to shop and visit attractions, and developers wishing to invest.
- 4.2 The draft Parking Plan enhances certainty by providing information on the current availability of parking within the central city, along with information on future provision where this is known. Parking for vehicles both on and off street is included. Information on future cycle parking is also provided.
- 4.3 There are six components to the draft Parking Plan:
- a set of parking principles
 - a short term forecast tool
 - a long term parking model
 - an operations plan
 - a cycle parking forecast; and
 - a delivery plan.
- 4.4 The findings of each of the six components have helped inform the development of the draft Parking Plan. The draft Parking Plan sets out the Council's intention for monitoring and assessing car parking demand and supply and sets out those principles that should guide future car parking provision. The draft Parking Plan assists in the coordination of information to encourage early investment in parking to support the recovery of the Central City.
- 4.5 Short stay parking encourages people to visit the central city and helps to support people accessing the business, hospitality and retail sectors. The recommended priority for the Council is to focus on the delivery of short stay (visitor) parking rather than long stay (commuter) to encourage visitors and to support businesses. This may be through the rebuild of its own parking buildings, and provision of other parking areas and / or by working with the private sector to deliver parking. Long stay parking, as before the earthquakes, can be delivered through both private developments, shared public / private parking, park and ride and by encouraging people to use other transport options.

8 Cont'd

Parking Principles

- 4.6 The parking principles have been developed to help guide the design and location of new parking facilities. The parking principles are to:
- provide parking to support economic vitality
 - prioritise public short stay parking (visitor) to support businesses
 - ensure there is safe and easy access to all parks
 - design all forms of parking to integrate with the surroundings
 - manage all forms of parking to achieve high utilisation and incorporate smart technology where appropriate (such as electric charging)
 - minimise the on-street effects of servicing by providing service lanes
 - taxi and coach parking to support key precincts
 - cycle parking is provided in addition to vehicle parking to support travel choices.

Parking model

- 4.7 The parking model aims to monitor parking to inform provision in the right quantity and location. The model includes both short term (one to three years) and long term (2041) parking forecasts. The short term forecasts are based on quarterly parking surveys and include construction timing to understand the immediate demand and supply for parking. Whereas the long term forecast uses the Urban Development Strategy land use forecast which projects the number of jobs and activities in the central city. This is used to estimate future parking demand and likely supply to year 2041.
- 4.8 This information tells us that generally there is currently sufficient car parking capacity to cater for existing demand. However, there are some "hot spots", such as around the hospital and retail precinct areas, where demand exceeds supply on certain days and at certain times. In terms of future demand the next few years will see an increase in parking demand as construction and rapid land use change within the central Christchurch occurs. Some of this increasing demand, especially from commuters, will be able to be met through mode shift. However, some will also need to be met through the provision of public and private car parking facilities. The draft Parking Plan identifies potential locations for providing parking and sets out a delivery plan of priority actions.

Delivery and communication

- 4.9 The draft Parking Plan and parking model are intended to be living documents that will be updated as new information comes to hand as the rebuild continues. The delivery plan highlights ten priority actions for early implementation. One of the first actions is to communicate and share the information on parking demand and supply with the community. The Council's parking webpage has been updated to make it easier to find parking information such as 'How to find a park'. A parking dashboard, which summarises key information on parking trends, is also being developed to easily communicate the model information to the development community.
- 4.10 Further work is being developed in parallel to the draft Parking Plan. An Expression of Interest (February / March 2015) has been released to the market to gather information on options for public parking provision in the central city. The role of Council in parking will be reviewed through consultation on Council's list of Strategic Assets in the Significance and Engagement Policy.

5. FINANCIAL IMPLICATIONS

- 5.1 The draft Parking Plan provides information on parking supply and demand. It summarises the preferred locations for future parking facilities, which could be provided by either the Council or commercial sector. Adoption of the Parking Plan is not a commitment to the delivery of any particular project. The detailed achievement of the plan will be determined through the Long Term Plan and work with the commercial sector.

8 Cont'd**6. STAFF RECOMMENDATION**

That the Infrastructure, Transport and Environment Committee recommend that the Council:

- 6.1 Approve the Christchurch Central Parking Plan.
- 6.2 Note the feedback and recommendations from the public workshop.
- 6.3 Note that the information within the Parking Plan will be monitored and communicated to the development community and other key stakeholders.
- 6.4 Delegate authority to the Infrastructure, Environment and Transport Committee to approve any recommended changes to the Parking Plan following quarterly monitoring.



Christchurch Central Parking Plan

2015

Executive summary

Increased certainty about the current availability and future provision of parking in the Central City is important for providing confidence in the rebuild of a thriving Central City. It is important for those working in the city, those wishing to shop and visit attractions, and developers wishing to invest.

This Christchurch Central Parking Plan (the Parking Plan) enhances certainty by providing information about the current availability of parking within the Central City, along with information on future provision. Both on-street and off-street vehicle parking is included. Information on future cycle parking needs is also provided.

The Parking Plan is a non-statutory document and forms part of the *An Accessible City* (the transport chapter of the Christchurch Central Recovery Plan) work programme, shown in Figure E.1. An Accessible City will contribute to a greener, more people friendly and welcoming central city. The Parking Plan plays an important part in the larger plan for An Accessible City helping make it easier for people, cars, bicycles and public transport to get to Christchurch Central and move around. Further information on An Accessible City is available at:

<http://ccdu.govt.nz/the-plan/an-accessible-city>

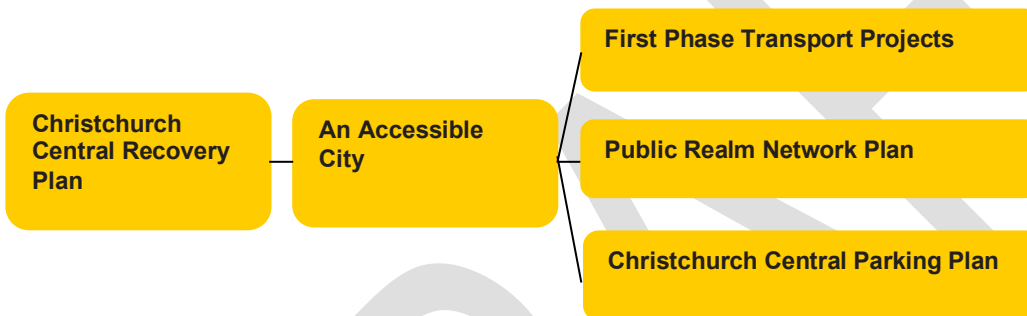


Figure E.1: An Accessible City work programme.

There are six parts to the Parking Plan:

- A set of parking principles to guide the design and location of new parking facilities
- A short-term parking forecast tool (current to three year forecast)
- An operations plan
- A long-term parking model (forecast to year 2041)
- A cycle parking forecast
- A delivery plan

The findings of each of these six components have helped inform the development of the Parking Plan. What this information tells us is that currently there is sufficient car parking capacity to cater for existing demand (as at early 2015). However, there are some “hot spots”, such as around the Christchurch Hospital area, where demand exceeds supply on certain days and at certain times. This Parking Plan sets out the measures that are being taken to ensure current adequate supply.

The long term parking model referred to above, uses the anticipated Christchurch Central Recovery Plan land uses in the Central City and wider Urban Development Strategy land use forecasts to project likely parking demands out to year 2041. The projected number of jobs and activities from the land use modelling are used to estimate future parking demands and map these against likely supply. In terms of future demand the next few years will see an increase in parking demand as construction activity and rapid land use change within central Christchurch occurs. Some of this increasing demand, especially from commuters, will be able to be met through increased use of walking, cycling and public transport infrastructure. However, some demand will also need to be met through the provision of new and replaced public and private car parking facilities. The parking principles in this Plan have been developed to help guide the design and location of new parking facilities.

Short stay parking encourages people to visit the Central City and helps to support access to business, hospitality and retail sectors. The recommended priority for the Council is to focus on the delivery of this short stay (visitors, up to three hours duration) parking rather than long stay (commuter, three or more hours) parking, to encourage visitors and to support businesses. This may be through the rebuild of Council’s own parking buildings, the provision of other new parking areas, and / or by working with the private sector to deliver parking infrastructure or services. In the short term, while construction is underway, the development of temporary car parks on vacant sites remains the single most effective mechanism for increasing parking supply through to 2018.

The greatest demand for short stay parking is expected within the Core, particularly around the Retail Precinct, and the Health Precinct, shown in Figure E.2. To support these areas, the Council have already committed to replacing off-street parking at Lichfield Street to at least pre-earthquake levels (either by Council or by private investors) and The Crossing car park is now owned and to be constructed by the Carter Group. Council's Draft Long Term Plan includes funding for the replacement of parking which is recommended to support the anchor projects north of Cathedral Square. The Council and the Crown are also considering the parking and servicing needs of the individual Anchor Projects in the Central City.

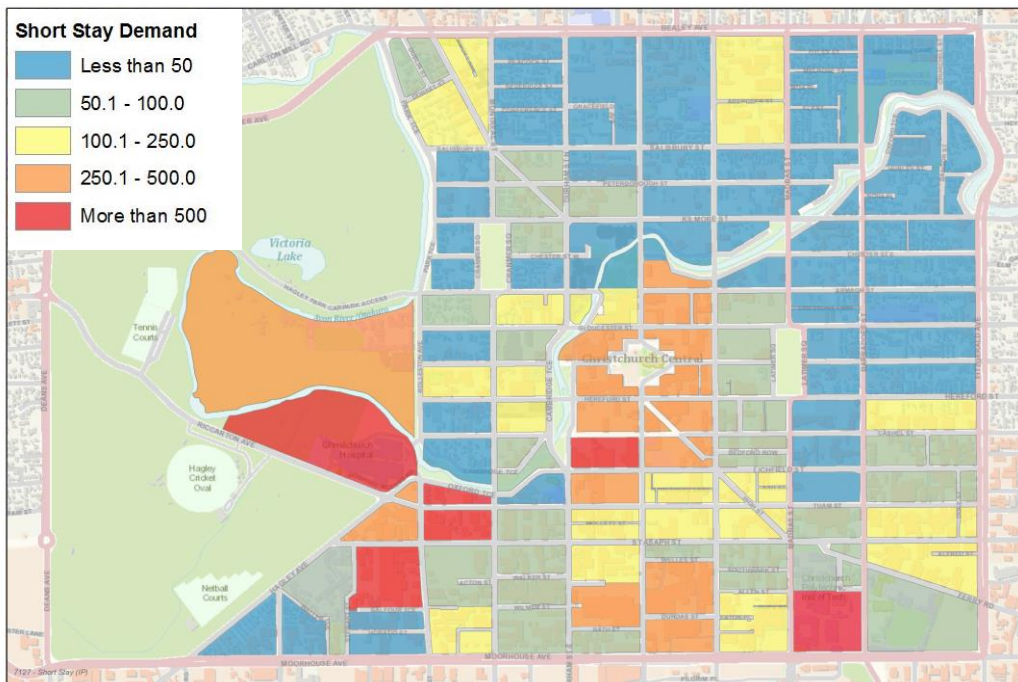


Figure E.2: Forecast short stay (visitor) demand by 2041.

This Parking Plan sets out the Council's plan for monitoring and assessing parking demand and supply and sets out those principles that should guide future parking provision including the proposed focus on short stay provision. The Council will continue to work closely with the private sector to facilitate opportunities to deliver short stay parking facilities, especially at the priority locations identified in Figure E.3. As before the earthquakes, the majority of long stay parking to meet the needs of commuters and business will continue to be met within commercial developments. An Accessible City and the Recovery Plan contain provisions for this to be the case. There are also opportunities for developers who wish to build their own separate parking facilities for either long stay or short stay users.

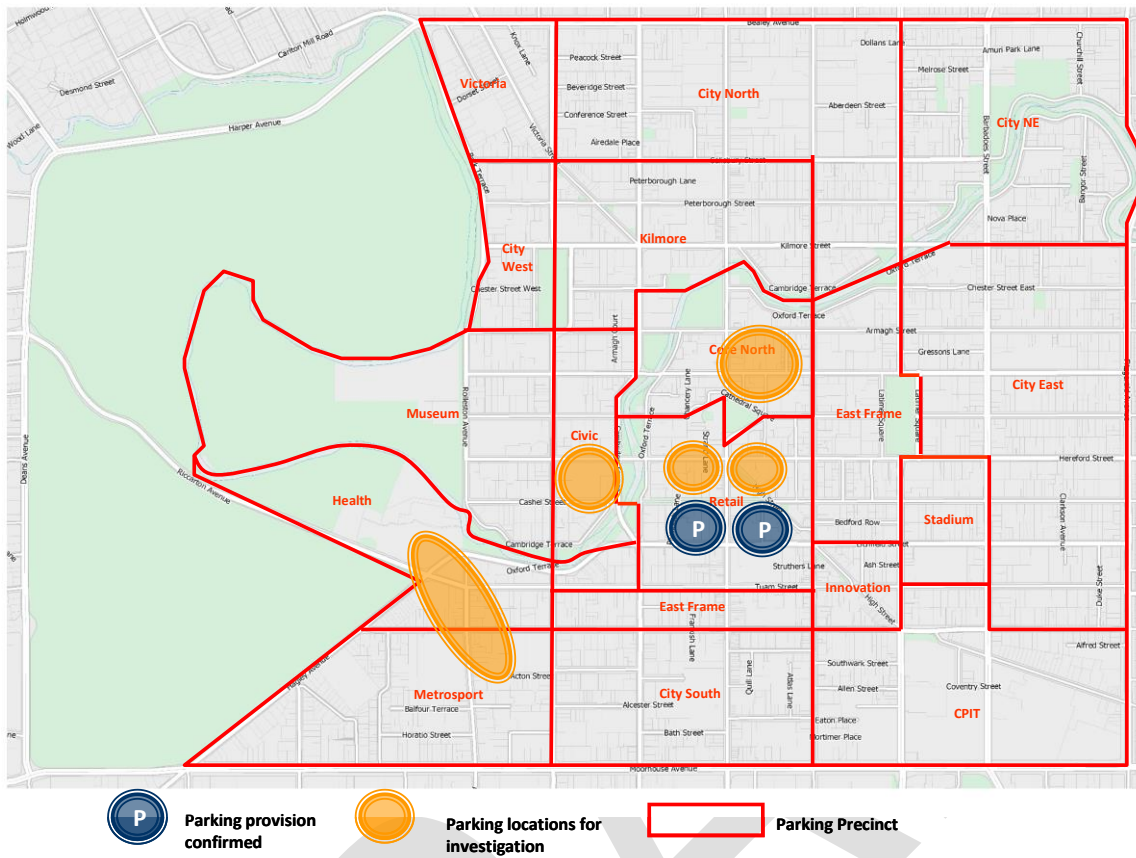


Figure E.3: Priority locations for short stay parking supply.

The intention is that this Parking Plan will be of assistance to those wishing to access and invest in the city both now and in the future. The Parking Plan is a living document that will be updated as new information comes to hand. One of the aims of the Parking Plan is to improve the flow of information on parking. Up-to-date information will be provided on parking at the following Council website:

www.ccc.govt.nz/parking

Table of contents

Executive summary	1
Table of contents	4
1. Introduction	5
1.1. Purpose	6
1.2. Background	6
2. Parking Plan	8
2.1. Parking principles	8
2.2. Short term parking forecast tool	9
2.3. Operations plan	11
2.4. Long term parking model	11
2.5. Cycle parking	18
3. Delivery plan	20
3.1. Council and the Crown's provision of public parking	20
3.2. Private provision of public parking	21
3.3. Priority actions	22
3.4. Governance and management	23
3.5. Communication of information and engagement	24
Appendices	25
Appendix A: Parking principles	26
Appendix B: Cycle parking approach	28

1. Introduction

The Christchurch Central Parking Plan (Parking Plan) provides information on existing and future parking provision within the Central City.

The Parking Plan is intended to help the Council, the Canterbury Earthquake Recovery Authority (CERA), the Christchurch Central Development Unit (CCDU) and the development and business communities alike, in gaining a shared understanding of ongoing parking needs and supply across the Central City during the recovery phase.

The Parking Plan summarises and brings together five key components of parking into one plan, these are illustrated in Figure 1.1.

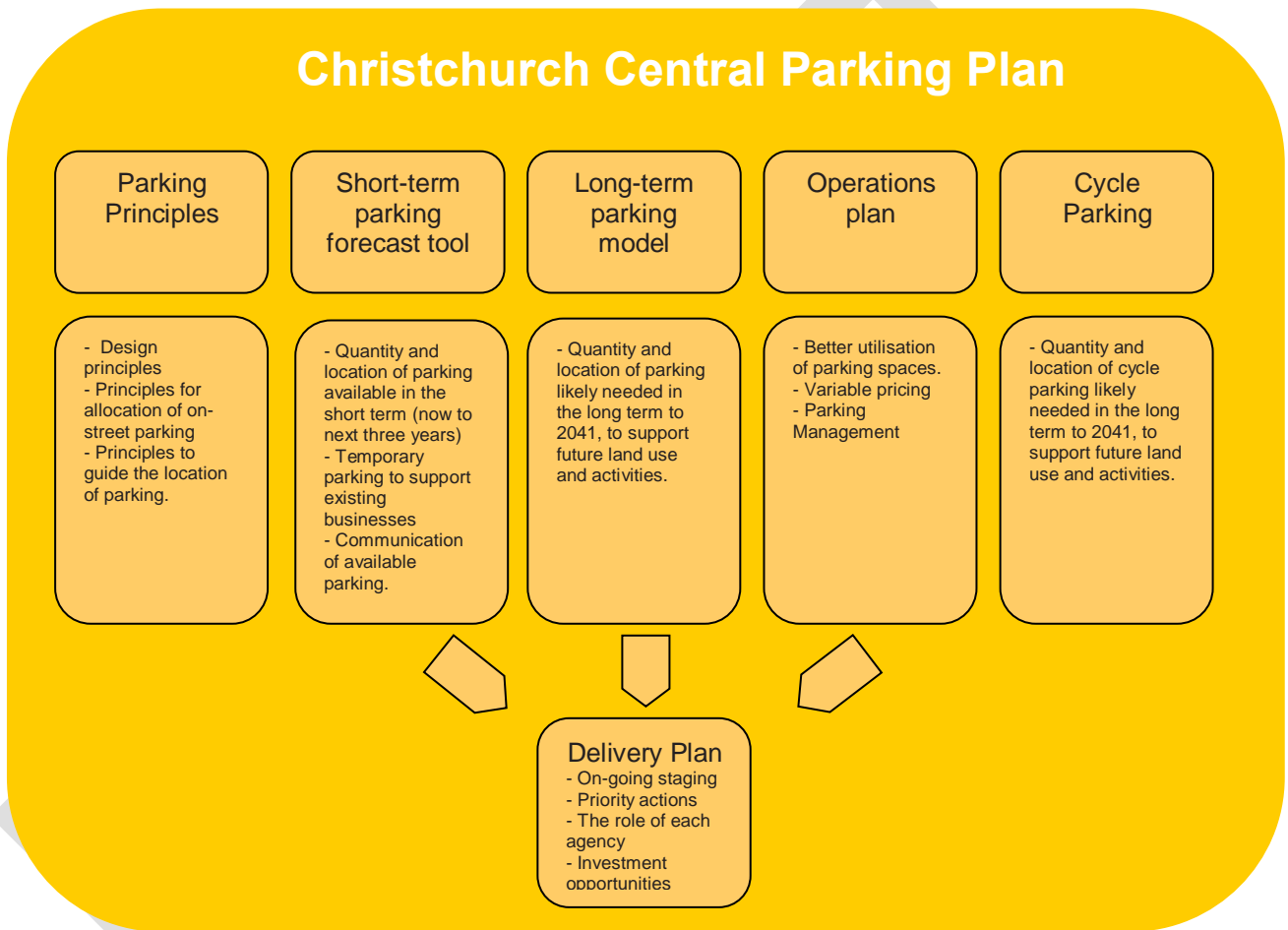


Figure 1.1 Components of Christchurch Central Parking Plan.

The Parking Plan is a live document with supporting tools (models and maps) which identify the likely short stay (less than three hours) and long stay (three or more hours) parking demands, preferred locations and broad quantity of parking facilities needed to support key destination areas, and the Central City as a whole.

The Parking Plan and supporting information will be made available and kept live on the Council parking website at:

<http://www.ccc.govt.nz/parking>

1.1. Purpose

The Parking Plan provides clear information on expected parking demand and likely supply.

The purpose of the Parking Plan is to:

1. Provide the key source of information for the Council, Crown and development and business sector alike to coordinate the delivery and monitoring of off and on street parking provision (in both the short term and long term) throughout the Central City. This includes the provision of parking through anchor projects, private development and Council capital asset and operational programmes.
2. Provide clear information on parking demand and likely supply to the private sector, development and business community alike. The aim is to enable informed decisions about development and management of parking provision, and opportunities to be involved in the provision of private and public parking facilities within the Central City.
3. Coordinate communication and information to the Minister for Canterbury Earthquake Recovery, Councillors, the development and business sector and the community about policy setting and development opportunities in the Central City for parking.
4. Inform the An Accessible City Implementation plan over the delivery of parking projects to ensure good integration with the implementation of transport projects, the Public Realm Network Plan, Retail Precinct Plan and Anchor Projects.

1.2. Background

The Parking Plan forms part of the An Accessible City.

An Accessible City is the transport chapter contained within the Christchurch Central Recovery Plan and supports the vision of central Christchurch becoming the thriving heart of an international city. An Accessible City provides for a transport system that will be flexible and resilient and will accommodate future population and travel growth. The An Accessible City work programme illustrated in Figure 1.2. Further information on An Accessible City is available at: <http://ccdu.govt.nz/the-plan/an-accessible-city>

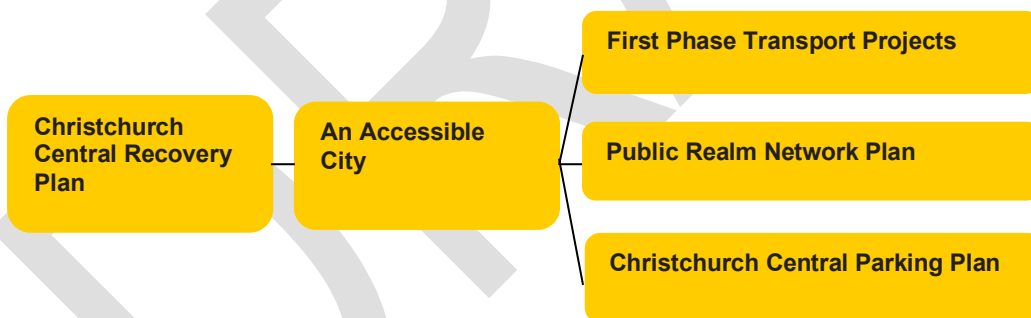


Figure 1.2: An Accessible City work programme.

Accommodating travel growth and access to central destinations without worsening traffic congestion is a significant challenge for the successful implementation of An Accessible City. Increases in bus patronage and those choosing to cycle to the Central City, along with associated growth in pedestrian movement, are being encouraged. However, people will continue to travel into the Central City by vehicle (car, taxi, truck) by necessity or by choice. Therefore, taking account of servicing needs, including for emergency services vehicles, means that parking and servicing provision is essential to support the transport needs of the new Central City.

Increased certainty around current and future parking and servicing provision is therefore important for those who need to travel to the Central City by vehicle and is particularly important for those developers and businesses who want to invest in the Central City.

Prior to the Canterbury earthquakes there were more than 36,000 car park spaces within the avenues.¹ More than 26,000 of these were off-street car parks and were mainly provided by the private sector as part of their business, or were residential parking. The Council managed a total of around 10,000 on-street car parking spaces.

¹ Traffic Design Group (2014) Long Term Parking Technical Report pg. D2

Of the 26,000 off-street car parking spaces, 5500 were in public off-street car parks. The Council managed 3000 of these and commercial operators managed the remaining 2500. The pre-earthquake supply is summarised in Table 1.1.

Parking type	Council managed	Privately managed
On-street	10,000	0
Off-Street	3000	23,000*

*Some of these privately managed car park will have been available for public visiting shops/businesses (e.g. South City) and included 2500 publically available parking spaces managed by private operators.

Table 1.1: Parking supply before the Canterbury earthquakes.

Most of the 5500 public off-street car park spaces (Council and privately provided) have been lost due to earthquake damage. In their place a number of temporary public parking facilities have been established by both the Council, the Crown and third-party providers. Many of these temporary parking sites will be lost as buildings are constructed on these temporary parking sites. Therefore this loss of available temporary parking is a risk to confidence in, and the pace of, Central City recovery.

The significant rebuilding activity occurring in the Central City over the next few years does however provide a unique opportunity to look afresh at the Central City's parking needs. It also provides the chance to ensure parking provision is easily accessed and equally matched to business and visitor need and achieving the vision of the Christchurch Central Recovery Plan. The An Accessible City proposals for the transformation of Central City streets and the establishment of anchor projects will also reduce pre-earthquake levels of on-street parking, and so planning for future supply on and off street must take this into consideration. At the same time there is an urgent need to understand the long-term parking requirements of the Central City to help inform the design of the Anchor Projects and early private developments.

2. Parking Plan

2.1. Parking principles

Parking principles will help to guide the design and location of parking facilities.

To assist with implementation of parking in the Central City and to guide the expected outcomes of the Parking Plan, parking principles have been developed. The parking principles are to:

- Provide parking to support economic vitality.
- Council to prioritise public short stay parking (visitor and shopper) to support businesses.
- Ensure there is safe and easy access to all car parks.
- Design all forms of parking to integrate with the surroundings.
- Manage all forms of parking to achieve high utilisation and incorporate smart technology where appropriate (such as electric pricing, electric vehicle / cycle charging, wayfinding and occupancy monitoring systems).
- Minimise the on-street effects of servicing by providing service lanes.
- Taxi and coach parking to support key precincts.
- Cycle parking is provided in addition to vehicle parking to support travel choices.

These principles are discussed in more detail in Appendix A. Figure 2.1 illustrates how the parking principles can be applied to influence the design and location of parking facilities.

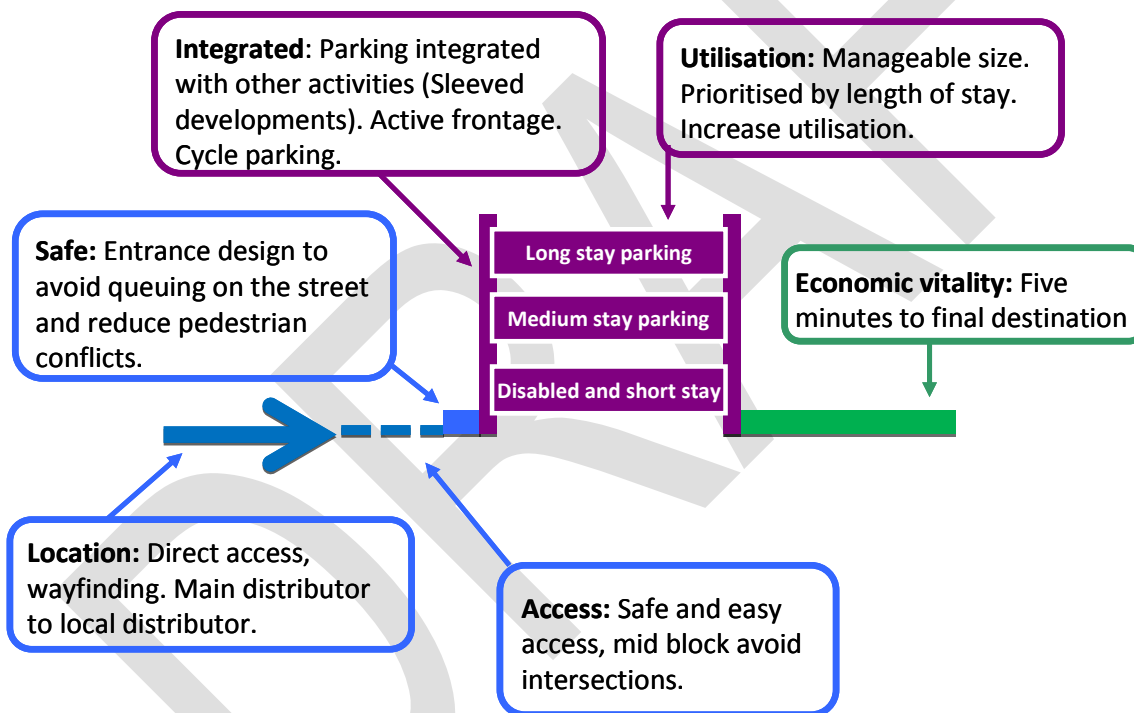


Figure 2.1: Parking principles.

When the parking principles are applied, public parking buildings will be located to ensure safe, direct and easy access, preferably from local distributor streets. Conflict between vehicles accessing the buildings and other road users, especially those walking and cycling, will be managed. The design of the building façade will integrate with the surroundings, with a preference for mid-block sites that have continuous active frontages at street level. For example, the building may be sleeved by retail activities. To manage the effects on the transport network and to increase utilisation, off-street public parking buildings may need to be smaller than before the earthquakes.

The careful selection of the location of parking facilities, along with improved wayfinding (signs/apps) will also ensure quicker and easier access with minimised congestion from reduced searching for vacant spaces. Car drivers will spend less time travelling around looking for a parking space and this will allow them to have more time to shop and visit businesses. Off-street short stay public parking buildings will therefore ideally be located to serve key destination areas within a five minute walking distance. In simple terms, people will be encouraged to park once and stay/shop longer.

2.2. Short term parking forecast tool

The short term tool allows Council to plan and identify when and where intervention is required to increase temporary parking capacity and improving utilisation.

The tool is a basic model of the current demand and supply projections for public parking within each of the parking zones out to 2018. The parking zones are illustrated in Figure 2.2. The outputs from the tool is illustrated in Figure 2.3.

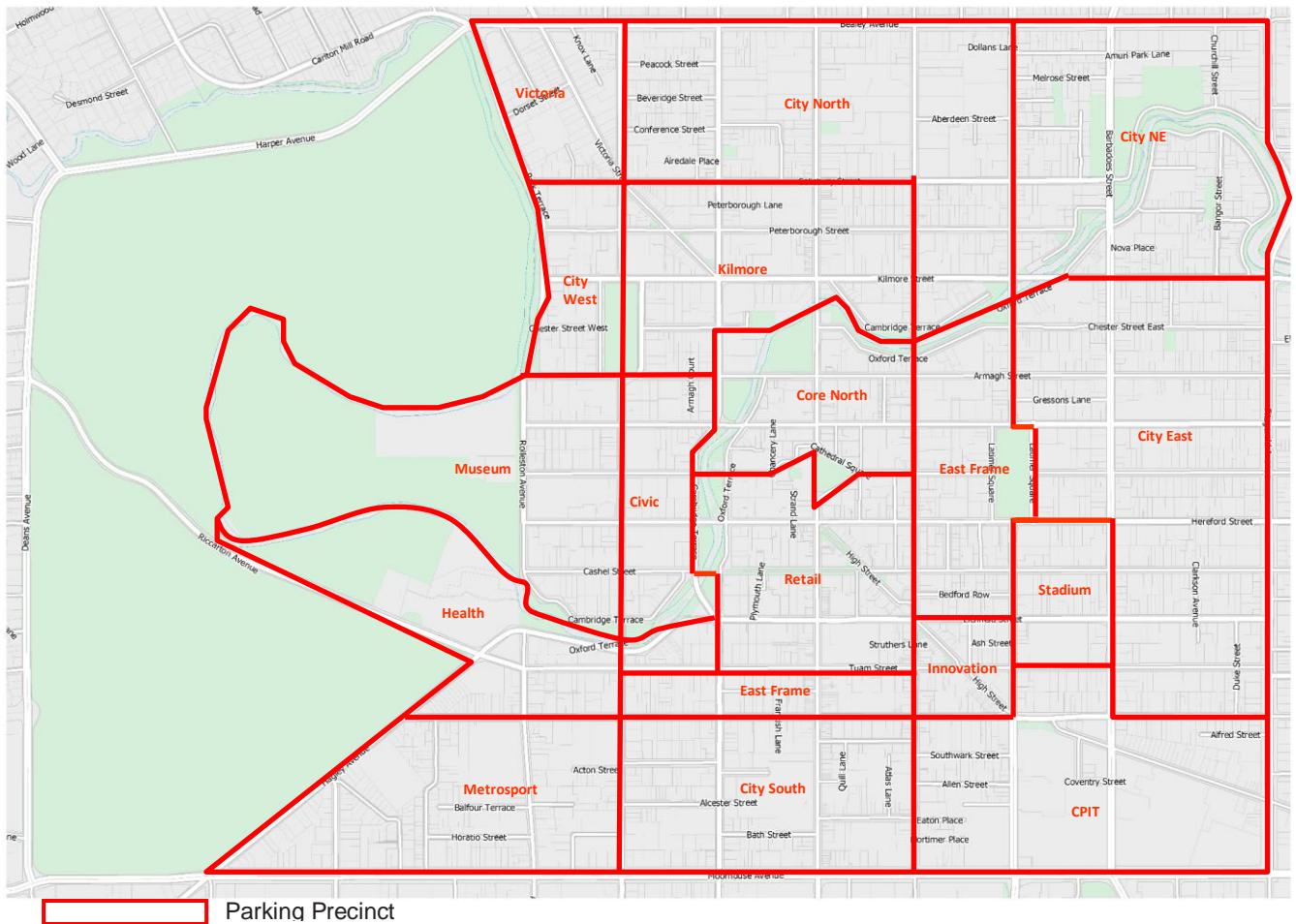


Figure 2.2: Parking zones in the short and long term parking model.

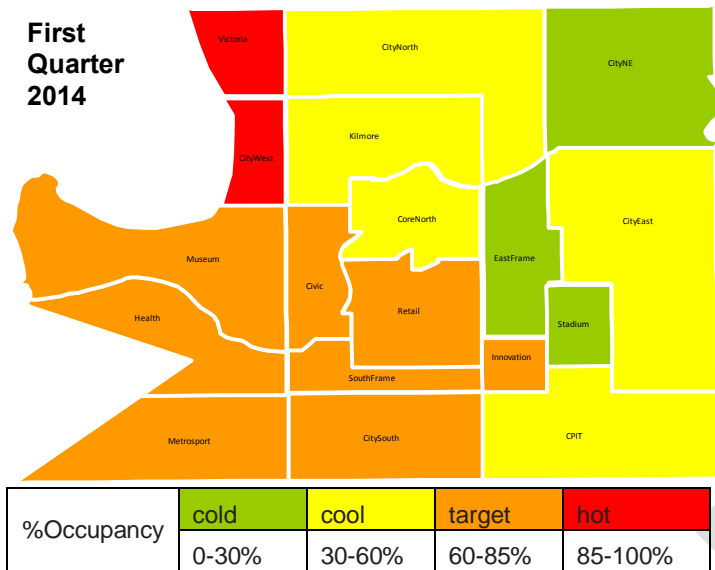


Figure 2.3: Example of short term parking forecast tool, summary map of the first quarter of 2014.

The tool draws on information from quarterly physical parking surveys, the LINZ forward work planner (which includes construction timing information), construction worker demands, Anchor Project effects and the impacts of construction on on-street supply. The tool uses this information to produce heat maps of where utilisation is high and includes forecast information to 2018.

The data for first quarter 2014, shown in Figure 2.3, indicates that generally there is sufficient capacity across the parking stock (public and private) over the entire Central City to cater for the existing demand. However, there are some “hot spots” where demands currently exceed supply at times such as around the Christchurch Hospital and the Civic precinct. These hotspots are forecast to increase through to the fourth quarter 2015.

The tool can provide more detailed summaries and forecast's for each precinct. As an example of the information available, the demand and supply rates for the Retail Precinct are summarised in Table 2.1. The current demand and supply rates are very dynamic and will be constantly monitored and updated (every quarter) by the Council. The information from the monitoring and projections will be used to ensure more car parks can be added at the right place and time.

Parking type	Supply	Demand	Occupancy
On-street Metered	74	80	100%
On-Street Unmetered	10	14	100%
Off-Street	334	263	79%
Total	418	357	85%

Table 2.1: Demand and supply rates retail precinct, February 2015.

The tool can forecast the under supply and over supply of public parking facilities through to the end of 2018. The supply through this period is likely to diminish rapidly without intervention. The most significant factor contributing to this decline is the expected loss of on-street parking spaces associated with the SCIRT work programme (concluding in 2015) and increasingly the implementation of the enhancements to the public realm through wider footpaths, tree plantings and dedicated cycle lanes as well as gradual loss of temporary off street facilities as the rebuild intensifies. The cumulative impact is expected to result in the removal of up to 3900 on-street spaces. This is at a time when parking demand picks up. The demand generated by construction workers is also notable and is expected to peak at around 800 spaces towards the end of 2016.

The culmination of these effects will mean additional parking spaces are needed if the objective is to keep supply at or above demand. Importantly, there are opportunities to better manage the existing parking stock to improve the availability of parking spaces. If current car parks were better used, fewer additional car parks would need to be provided. For example if utilisation can be increased to 85 per cent then significantly less additional parking spaces would need to be provided. The provision of public or private temporary parking facilities remains the most effective way of meeting the changing demands being experienced now and expected over the next three years.

2.3. Operations plan

The Council needs to manage both its on-street and off-street public parking resource.

The Council needs to have a greater ability to respond to the fluctuating parking demands created by a rapidly changing city. There is also a need to manage and maximise all parking occupancy as a high priority to encourage business vitality, economic activity and accessibility. A car parking operations plan, primarily focussed on Council operated supply, will be prepared to focus initially on the short term to 2018. This will seek to develop policy and mechanisms to ensure the correct amount and type of parking is available when and where required. This can be achieved by:

- Flexible pricing and metering to optimise parking and achieve parking occupancy targets of approximately 85 per cent.
- Extension of the delegated authority to Council staff for operational decisions, such as pricing and locations.
- Extension and review of the current residential parking scheme to use new technology to administer and monitor the scheme.
- Extension of paid parking areas to the Avenues and other/or hot spots, excluding residential parking, to increase supply and control.
- New technology to improve parking management, including options for smart technology, electric charging, payment options, wayfinding and time of day management.

2.4. Long term parking model

The long term parking model is a live resource with a supporting technical report which identifies the likely locations and quantity of parking facilities needed to support key destination areas, in the Central City out to 2041.

The primary data in the model is the long term land use forecasts out to 2041, featured in both the Christchurch Central Recovery Plan and the Greater Christchurch Urban Development Strategy. The land use forecast in Figure 2.4, shows the expected increase in the number of people living, working and visiting the Central City. This data also provides indicative floor areas for a range of activity types as well as the forecast number of jobs associated with each activity.

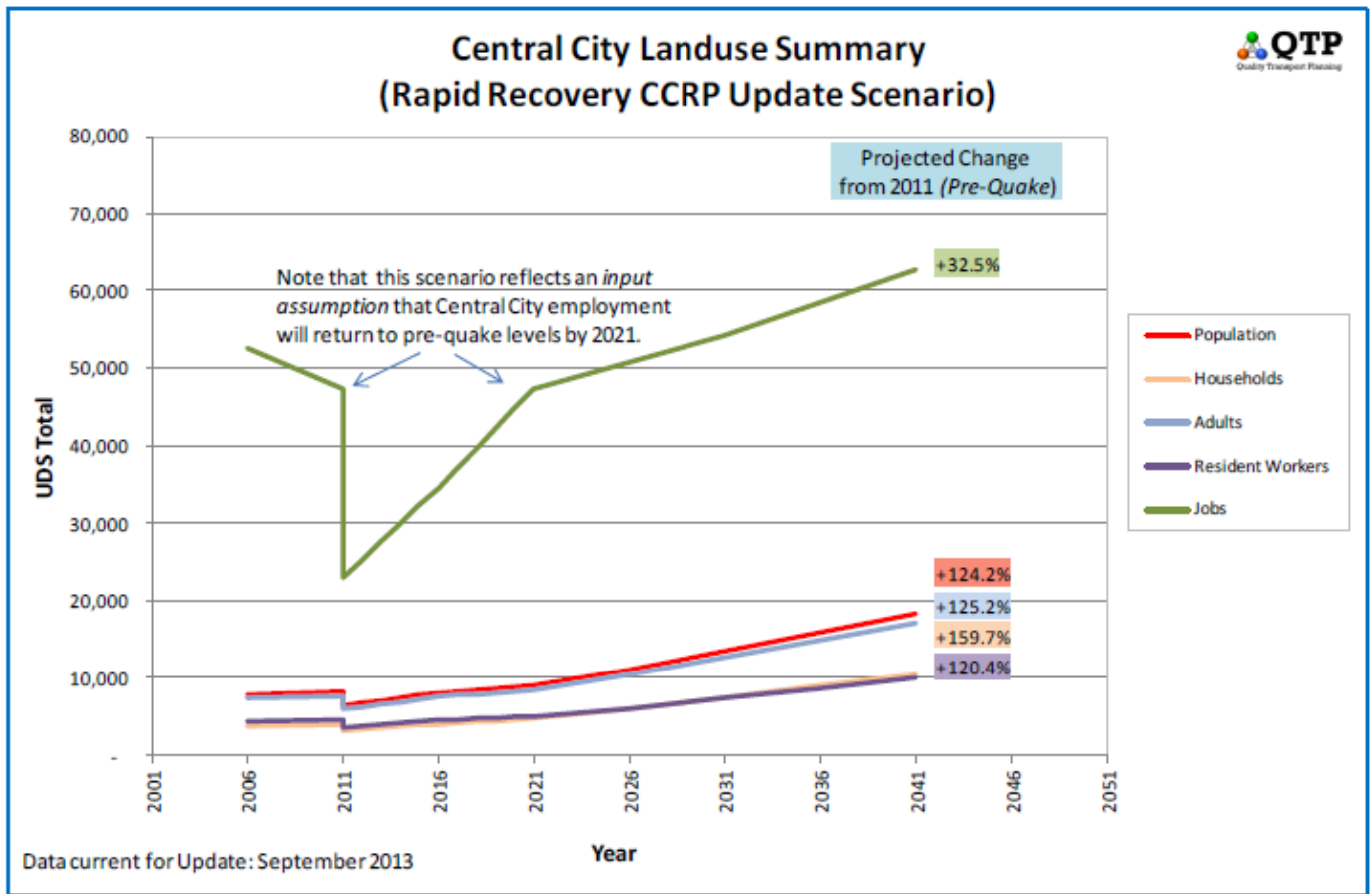
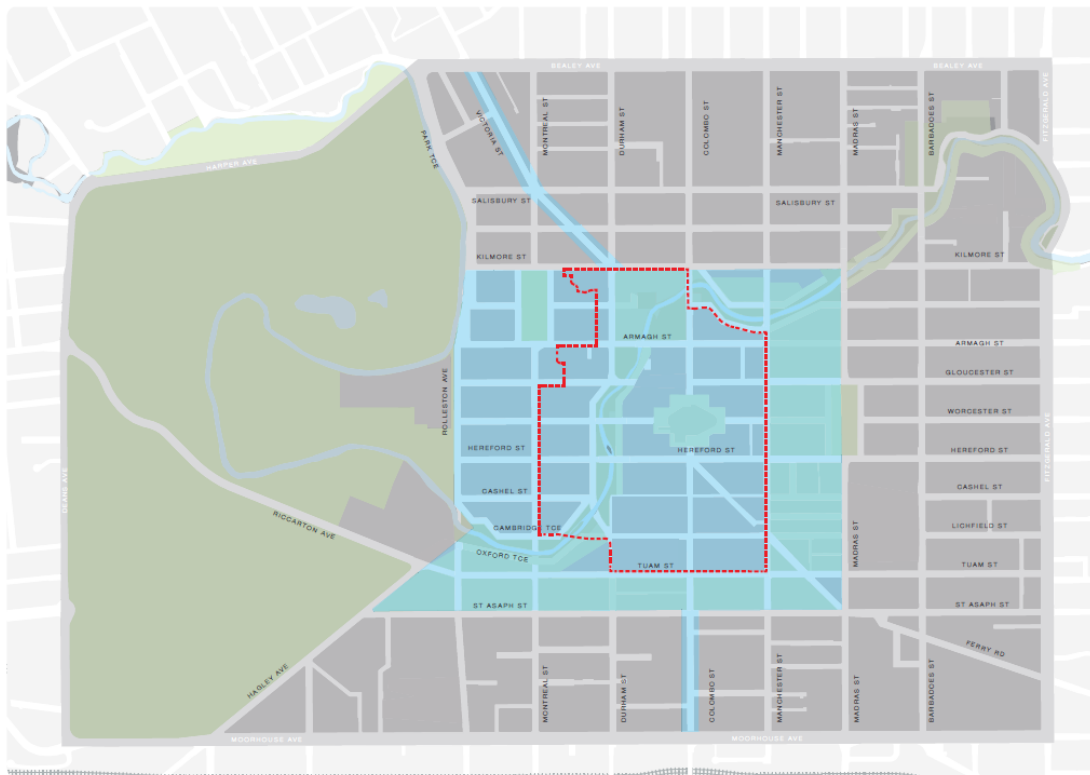


Figure 2.4: Central City land use summary.

Long stay parking demands are influenced by the projected number of jobs, travel mode splits and demands change by the day of week, time of day, and location. Short stay parking demands are calculated by slightly different variables including the activity type, floor areas, parking demand rates (utilisation), location, time of day, and access to other transport modes. The long term parking model allows these variables to be tested to understand how they impact on the future parking demand.

The model provides the capability to assess the effects of different levels of parking supply, both on-street and off-street on the demand / supply relationship. The amount of on-street parking available within the city will change as key transport projects are developed and streetscape enhancements implemented. Off-street parking for both short stay and long stay needs is expected to be provided in a variety of forms both by private developers and by the Council.

A preliminary scenario of long term demand and supply based upon the proposals of the Central Christchurch Recovery Plan has been modelled. This provides the quantitative analysis to support the Parking Plan. The analysis is separated into long stay (more than four hours) and short stay (less than three hours) parking, mainly representing staff and visitor parking needs respectively. A range of numbers has been used for the future demand and supply relationship to allow for uncertainty around the different variables outlined above. The analysis has been summarised into the three parking zones outlined in An Accessible City: the Core, Inner and Outer Zones. These are shown in Figure 2.5.



Inner zone Outer zone Core

Figure 2.5: Parking zones: outer, inner and core zones.

Residential parking

The land use forecasts project that approximately 18,400 people will live in the Central City by 2041, this is equivalent to 10,400 households. The large number of residential households proposed may increase demand for associated on-street parking irrespective of the likely attractiveness of such properties to low vehicle ownership given their central location and good access to new walking, cycling and bus networks. The residential parking requirements for new developments in the Central City are set in the District Plan. The District Plan requires no on-site car parking for residential activity within the Central City, other than disabled parking. If parking is provided, the parking area of a site shall be no greater than 50% of the Gross Leasable Floor Area of the buildings on the site. In the model, the parking supply in new residential developments is expected to be about 1 space per unit, this assumption is based on similar residential developments in New Zealand. When development occurs, if fewer off street spaces are provided within developments, and car ownership exceeds expectations in combination with commuter parking affecting residential areas, then intervention may be needed. The effects of long stay parking on residential streets will therefore be monitored and could be reduced with dedicated long stay parking buildings or consideration of new technologies for parking management or park and ride for commuter parking.

Long stay parking to year 2041

Long stay parking is typically used by employees and provides commuter parking for longer than four hours. The forecast number of jobs in the Central City by 2041 is illustrated in Figure 2.5. This shows that the highest number of jobs will be around the Core and the Health Precinct areas.

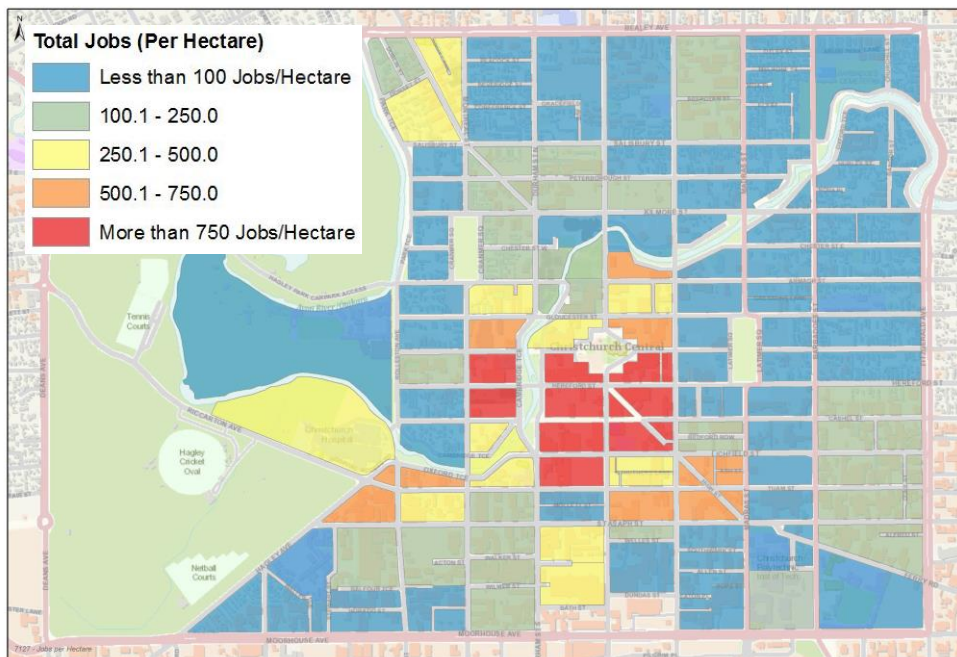


Figure 2.5: Location of jobs in forecast year 2041.

The most critical period for long stay parking is during the week in the middle of the day because this is the time at which most employees are at their workplace. The 2006 Census information indicates that 57 per cent of employees within the Central City drove to work, creating demand for car parking. To manage congestion, by 2041, the An Accessible City sets out a transport network to encourage more commuters to travel by bus, cycle and walking. The demand forecasts in the model therefore assume a 10 per cent shift in drivers to other modes of transport by 2041. This may be higher with improved public transport and cycling networks, therefore a 20 per cent shift in drivers has also been modelled to produce a range for the demand forecast. In reality, the analysis represents one scenario with variables which can be changed as more information becomes available or to test different scenarios.

An indication of the expected weekday, long stay parking demands and supply based on the 2041 land use information are provided in Figure 2.6 and Table 2.2. The analysis indicates that the demand for long stay parking is estimated to be between 20,600 and 22,800 spaces, based on around 64,000 jobs by 2041. This demand will be strongly influenced by the number and location of office workers who will account for about 60 per cent of employees in the Central City and 75 per cent within the Core. The demand for long stay parking will mostly be met through a mixture of private supply within individual developments and by more people travelling by public transport, walking and cycling.

Based on these supply assumptions, the model shows that there is likely to be a shortfall, of up to 2200 spaces, in the long stay parking supply within the Central City by 2041. The predicted shortfall in the Core could be between 4100 to 5100 spaces at peak time. This shortfall can largely be balanced by the on-street and off-street provision in the Inner and Outer Zone. This would mean that commuters would need to walk further from their car park to their destination. Opportunities for the introduction of park and ride or other innovative options to link the last leg of the journey such as cycle sharing could also be available if there was sufficient demand.

The shortfall in long stay parking supply arises because the model assumes a low rate of supply for office activity within the Central City, typically about 1 space per 100m² Ground Floor Area, and less in the Core, even though typical office supply rates in New Zealand are higher in the range of 2-3 spaces per 100m². Whilst the District Plan enables developers to provide up to 50 per cent Ground Leasable Floor Area as parking, the lower supply rates have been used in this model because they are consistent with the rates reported in early resource consents for office buildings within the new Central City. Ongoing monitoring of new resource consent applications and mode share will be used to test these forecasts and assumptions.

Long stay parking is mainly used by workers. It is expected that while there is a projected shortfall in long stay parking, improved cycling, walking and public transport networks and supporting travel demand management programmes will encourage a gradual change in the travel modes people are using. The model suggests that with a 10% reduction in the mode share for private car travel, employment within the Central City will still create a parking demand that is in excess of the forecast parking supply. However, with a 20 to 30 per cent reduction in mode share for private car travel, there would be sufficient parking within the whole Central City to meet the expected long stay demands.

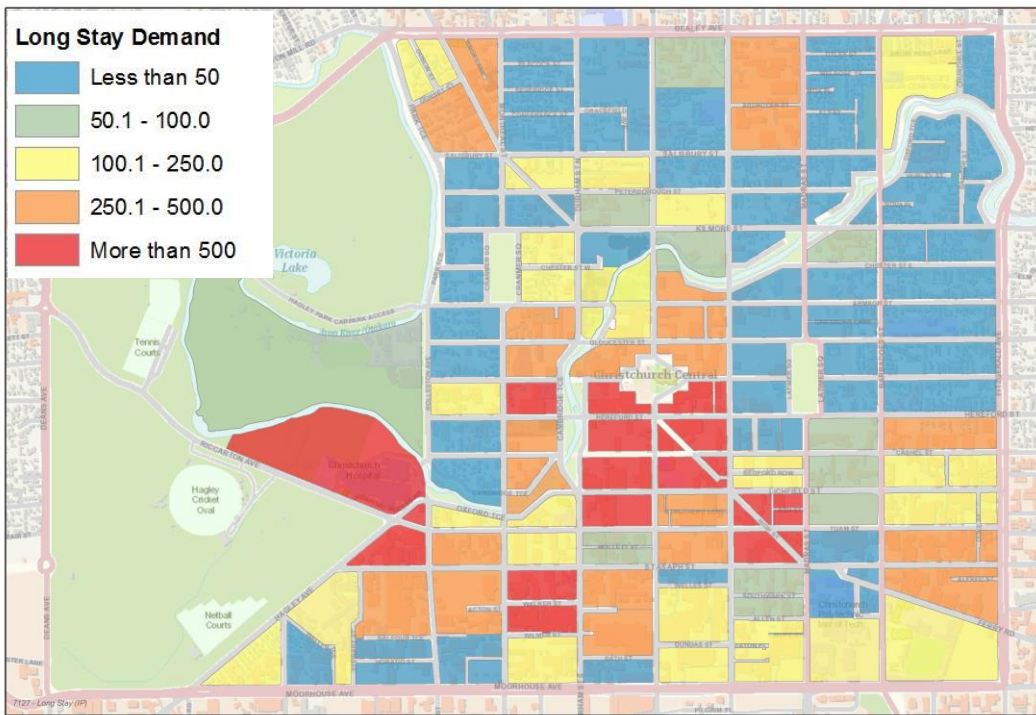


Figure 2.6: Forecast long stay demand to year 2041.

Location	Demand	Supply			Potential Shortfall
		On-street	Off-street	Total	
Core	8100 to 9100	-	4000	4000	4100 to 5100
Inner zone	2700 to 3000	100	4500	4600	(1600 to 1900)
Outer zone	9,800 to 10,700	2800	9200	12,000	(1300 to 2200)
Five Avenues (Total)	20,600 to 22,800	2900	17,700	20,600	0 to 2200

Table 2.2: Forecast long stay demand and supply of parking spaces (mid-day and mid-week by 2041).

Short stay parking to year 2041

The demand for short stay (visitor) parking demands will be driven by retail and hospitality activity as the Central City is re-established. The peak demand period for these is at the weekend. Although demand will still be high during the week, it is expected to be lower than during the weekend because a high proportion of the customers are expected to be employees and residents who are already in the city and therefore do not need a parking space.

An indication of the forecast demand and supply for short stay parking at the weekend peak by 2041 is shown in Figure 2.7 and Table 2.3. A range is used to show the effects on the amount of parking needed if demand is increased and less private parking is supplied than expected.

Across the Central City, the modelled scenario shows a peak demand (at the weekend) for short stay parking of between 13,200 and 14,600 spaces. Retail and hospitality activities account for about 50 per cent of the demand and Anchor Projects account for a further 40 per cent of the demand. In the Core the peak demand is expected to be about 4,900 short stay spaces. The short stay parking will mostly be met through a mixture of private supply within individual developments, through the supply of on and off-street public parking and by more people travelling by public transport, walking and cycling.

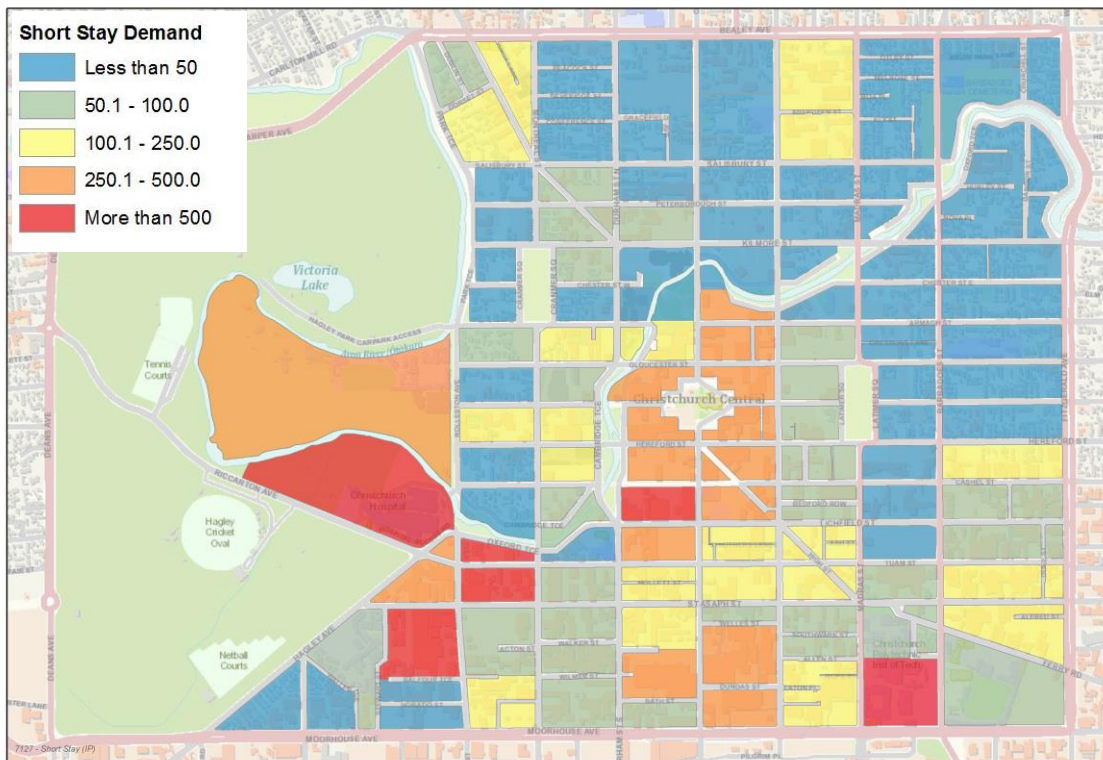


Figure 2.7: Forecast short stay demand to year 2041.

Location	Demand	Supply			Potential Shortfall
		On-street	Off-street	Total	
Core	4900 to 5800	300	3100 to 3300	3400 to 3600	1500 to 2400
Inner zone	700 to 800	100	4500	4600	(3800 to 3900)
Outer zone	7500 to 8100	1200	6300 to 6600	7500 to 7800	600 to (1100)
Five Avenues (Total)	13,200 to 14,600	1600	13,900 to 14,400	15,500 to 16,000	(900 to 3400)

Table 2.3: Forecast short stay parking demand and supply (weekend peak) by year 2041.

The number of public short stay parking spaces required is dependent upon the level of private off-street provision within the Core and the parking demand rate adopted. The demand rate for the retail activities within the Core is expected to be about 2.9 spaces per 100m² GFA because of the central location, however a higher rate has also been tested. Within the Core area, the off-street parking supply rate for individual retail and hospitality outlets is expected to be low or none at all because there is an expectation that public parking will be provided in specific locations, either privately or by Council. The model also assumes that around 1,200 short stay public spaces will be provided in the southern part of the Core (Lichfield Street and the Crossing parking buildings).

The model indicates that with the assumed supply, there is a potential shortfall of between 1500 and 2400 short-stay parking spaces within the Core but there is also a likely oversupply of between 900 and 3400 spaces within the rest of the Central City (Inner and Outer zones). The high level of demand within the Core is driven by the Retail Precinct containing a higher quantity of retail and hospitality type activities. The demand for parking in the northern part of the Core is related to the proposed civic and entertainment facilities located there.

There is an opportunity for some of the excess short stay demand in the Core to be met within the inner zone. This will involve customers having to walk a little further to their destinations. The ideal walking distance is a five minute walk to short stay parking facilities.

The shortfall could also be mitigated to some extent by increasing the number of Council-operated parking spaces within the Core and by encouraging more shared use of private parking facilities by both time of day and by day of week. This includes those primarily serving weekday long stay parking needs, to perhaps cater for the extra short stay parking demands at weekends. The demand for car parking could also be reduced through the provision of more choice of travel modes and through the increased number of people living within the Central City.

The short stay demand for the retail parking zone (a larger area than the Retail Precinct) is approximately 2700 spaces at the weekend peak. To inform the Retail Precinct Plan further analysis was undertaken to determine the expected parking demand and supply for the Retail Precinct (bounded by Durham, Hereford, High and Lichfield Streets) as defined in the Christchurch Central Recovery Plan. This is a smaller area than the retail parking zone. This analysis is available to accompany the long term parking model.

Preliminary parking locations assessment

Based on the initial analysis, blocks have been identified where additional parking supply by 2041, would be needed to meet the expected long term parking demands for the new Central City at the end of reconstruction. These are shown in Figure 2.8.

The locations identified are intended to reflect the parking principles and transport networks outlined in An Accessible City. The locations identified for long stay parking facilities are chiefly along the northern boundary of the inner core, close to the Innovation Precinct and Stadium, and between the Health Precinct and Metro Sports Facility. Short stay parking will be needed across the core area and the Health Precinct and Metro Sport Facility. Short stay is especially important in the Retail Precinct where the greatest shortfalls are expected.

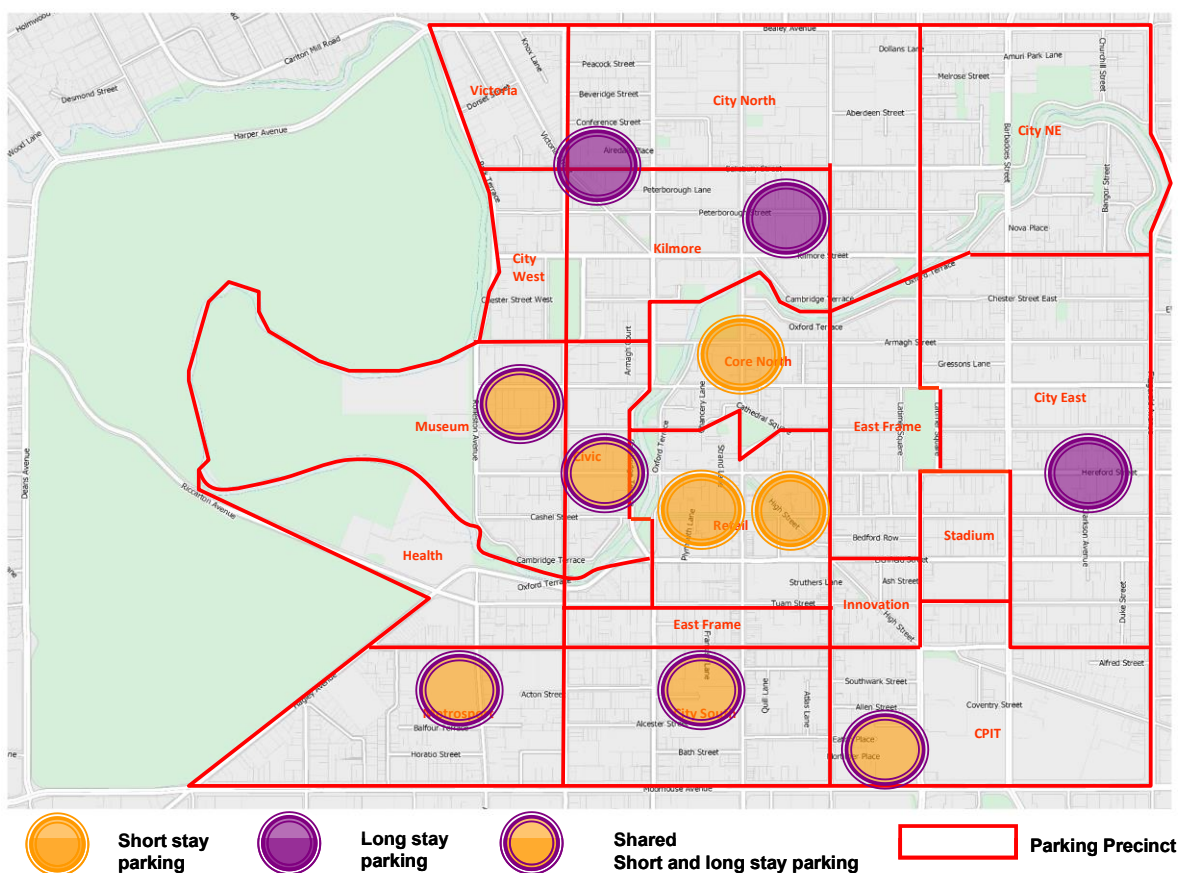


Figure 2.8: Indicative locations of where future off-street parking buildings (private or Council owned) would best support demand.

The provision of parking facilities at these indicative locations may be either by the Council, by the Crown through Crown led Anchor Projects, or by the private sector. Implementation of parking facilities needs to be staged and monitored as the rebuild progresses and as decisions on parking are made.

The Council's priority is to focus on the delivery of short stay (visitor) parking rather than long stay (commuter) parking to encourage visitors and to support businesses. This may be through the rebuild of its own parking buildings, and provision of other parking facilities and / or by working with the private sector to deliver parking infrastructure and services. To support these areas, the Council have already committed to the replacement of the Lichfield Street parking building (by Council or by private investors) and The Crossing car park is now owned and is being constructed by the Carter Group. The size and location of parking facilities need to reflect the parking principles, especially to provide safe and easy access from local distributor streets and to support the transport networks outlined in An Accessible City.

Further investigations are needed into other opportunities to support the Central City, considering locations around the Civic, Performing Arts, Health Precincts and Metro Sports Facility. A parking facility immediately north of Cathedral Square could help to replace the Manchester street parking building and to support the core north and other Anchor Projects such as the Central Library, the Square, and Convention Centre.

Long stay parking can be delivered through both private developments either ancillary to individual developments (up to 50 per cent of gross leasable floor area), by private parking facility providers and by a reduction in demand due to commuters to the Central City using other transport modes. The locations identified and parking analysis provides information to inform the development and business sector of where and how much additional long stay facilities would support demand.

Park and Ride (bus or cycle)

Park and ride facilities on the edge of the Central City could also have a role in meeting the long stay, commuter parking demand. Bus services and / or cycle share schemes could link parking facilities on the periphery to offices and destinations within the Central City, especially in the core area. The development of Park and Ride sites would need to take into consideration the wider network perspective, so that the parking supports both the Central City and also demand from other centres (such as Sydenham). Council would work with the private sector to deliver this solution over the longer term. The immediate priority is to focus on providing short stay parking to support visitors to the central city, particularly the Retail Precinct.

At this stage, there are many unknowns and in particular, there is some uncertainty regarding the actual parking provision by commercial developments throughout the city. Consent information is being monitored and as more information becomes available in development proposals, the parking model inputs will be monitored and can be updated to refine the parking demand and location analysis.

2.5. Cycle parking

The numbers of people cycling in Christchurch are projected to triple by 2041. Cycle parking is therefore a key component of the Parking Plan.

The Parking model estimates that there will be a total car parking demand (both long and short stay) of approximately 36,000 spaces in the Central City by 2041. The demand forecasts have been used with the transport mode share projections in An Accessible City to calculate the estimated proportion of parking demand for cycle parking in the Central City. An Accessible City aims to achieve a tripling of cycling trip numbers in the Central City by 2041. This will equate to an 11 per cent cycling mode share (a tripling) or 7.4 per cent mode share (a doubling) by 2026.

The long term (2041) demand for cycle parking in the Central City is estimated to be around 4000 cycle spaces (2400 long stay and 1700 short stay) in order to support these projected mode shares. The medium term (2026) demand is estimated at 2800 cycle park spaces (1600 long stay and 1200 short stay).

Similar to car parking, short stay cycle parking is needed to support visitors to the central city and long stay cycle parking is needed to support employees and commuters. According to the Christchurch Cycle Design Guidelines², the most important aspect for short stay cycle parking is being in an easy and convenient location for the user, for example, close to a shop entrance. Short stay cycle parking may be as simple as providing a cycle hoop. Long stay cycle parks should be secure, covered, ideally have a locker and potentially showering facilities. Ideally these should be provided at the place of work. More information on the design of cycle facilities can be found in the Cycle Design Guidelines and Appendix C.

The supply of cycle parking will be provided by a mix of individual businesses, the Council and the Crown (through Anchor Projects). The City Plan outlines cycle parking requirements (visitor and employee parking) for private developments in the Central City. Similar to car parking, additional cycle parking to that provided within private developments will also be needed for people cycling. Many individual retail and small businesses are unlikely to be able to provide their own on-site cycle parking.

² Christchurch City Council (2013) Cycle Design Guidelines

The quantity and location of short stay cycle parking should reflect the demand generated from activities on each street. Short stay spaces are especially needed within the streetscape where buildings in the street have no road frontage setback (such as Victoria Street). The location of short stay cycle parking will be considered within the implementation of transport projects, streetscape and public realm improvements and private developments for each street. In some areas there will be a high demand for both short stay and long stay cycle parking facilities, especially within the Core.

The supply and location of long stay cycle parking needs to provide secure and high quality cycle parking facilities at locations where it is perceived there will be the highest demand. Parking buildings and the Anchor Projects also provide an opportunity to integrate safe, secure cycle parking facilities.

These secure parking facilities would ideally be supported by one or two 'cycle hub' facilities which can provide excellent facilities such as showers, lockers, changing rooms, towels, laundry service, mechanic facilities, DIY tools, cycle shop, full time staff during normal hours, 24 hour access cards and air conditioning. Good quality 'cycle hub' facilities in a central location, coupled with secure long and short stay cycle parking facilities across the Central City will provide for the needs of people travelling longer distances. Some Anchor Projects (particularly the Metro Sports Facility, Bus Interchange, Central Library and Stadium) and key parking buildings provide good opportunities to integrate a cycle hub and secure cycle parking facilities.

The long stay demand and potential location of cycle facilities by parking zone in 2041 are illustrated in Figure 2.9. A detailed discussion of the types and locations of the facilities by each zone is provided in Appendix B.

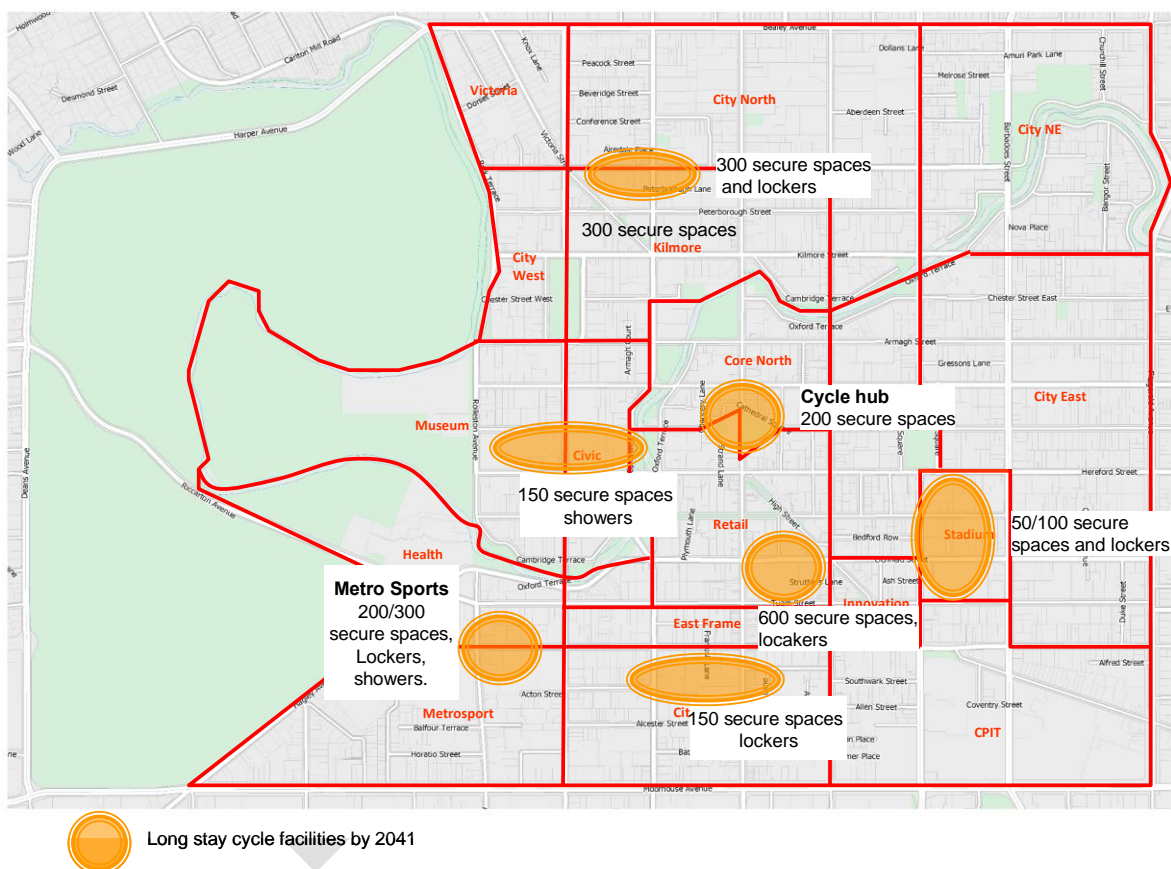


Figure 2.9 The potential locations of long stay cycle parking by 2041.

3. Delivery plan

The Parking Plan provides information and modelling to identify where the principle parking demands (short and long stay) are likely to be in the short and long term.

The Council, the private sector, and to the lesser extent the Crown, all play a key role in delivering parking provision. The delivery plan identifies priority locations and 10 priority actions.

3.1. Council and the Crown’s provision of public parking

The priority for the Council is to support the delivery of short-stay parking, this may be through the rebuild of its own parking buildings and provision of other parking areas and or by working with the private sector to deliver parking.

Priority locations

Priority locations for providing short stay parking are shown in Figure 3.1. Some of these locations may also be suitable for providing long stay parking.

The short stay demand for the retail parking zone (a larger area than as defined by the Retail Precinct in the Christchurch Central Recovery Plan) is approximately 2700 spaces at the weekend peak. As discussed in section 2.4, this demand for parking will be met through a mixture of private supply within individual developments, through the supply of on and off-street public parking and by a reduction in demand for car parks by encouraging more people to travel by public transport, walking and cycling.

Short stay, off-street, public parking supply will be needed to support the retail parking zone. The replacement of the Lichfield Street and the Crossing parking facilities will meet some of this short stay demand. Rather than one of two larger parking facilities, the optimal solution is to spread the supply over a number of smaller facilities (400-700 spaces). This improves access and ensures that the transport network remains efficient.

Further opportunities for short stay facilities around the Performing Arts Precinct (to assist in replacement of the Manchester street parking building), Health Precinct, Civic and Metro Sports will be investigated. The design of all facilities should be in line with the parking principles to ensure their efficient operation, as outlined in section 2.1. The Council will continue to work closely with the private sector to facilitate opportunities to deliver short stay parking facilities, especially at these priority locations.

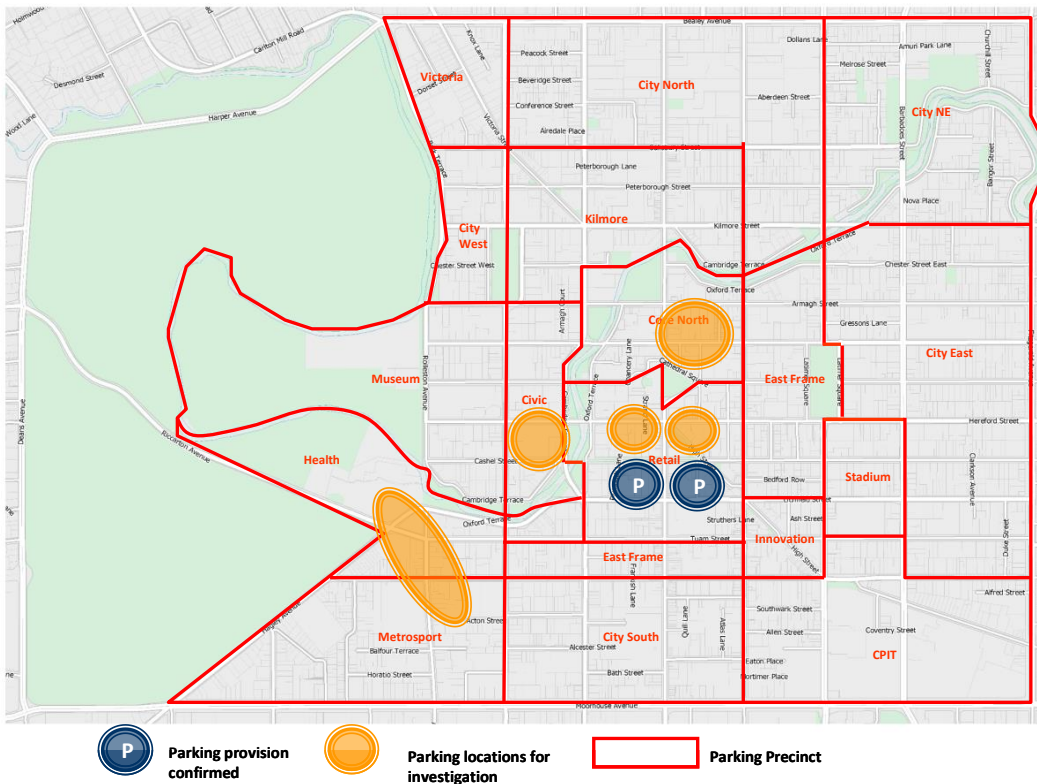


Figure 3.1: Priority locations of for short term parking supply.

The Council and the Crown are also considering the parking and servicing needs of the individual Anchor Projects in the Central city. The projects vary greatly in their purposes and therefore parking needs, but all seek to contribute to the access principles of An Accessible City.

A key focus is to identify potential 'quick wins'. These are early decisions that will support investor and property owner confidence in the central city rebuild. These considerations parallel the development of the Parking Plan, and have been informed with the best information available at the time.

The Lichfield Street and the Crossing parking buildings are the first quick wins to be identified. The Council has committed to ensure public parking is provided at these sites. The Council will continue to work with the private sector on other opportunities where early decisions are needed, particularly for the priority sites in Figure 3.1.

On-street parking

The Council will continue to provide on-street parking where necessary and possible. However, there are likely to be significantly lower numbers of on-street spaces on many streets especially in the Core, than pre-earthquake. This is because more street space will be required for additional landscaping and new and enhanced pedestrian and cycle facilities. Remaining on-street parking will be prioritised for disabled parking, taxis, service vehicles and short-stay visits, rather than for commuters.

Short term provision through temporary parking

The development of temporary car parks on vacant sites remains the single most effective mechanism for increasing parking supply to 2018. This will, however, become increasingly difficult as rebuilding progresses. The pursuit of additional parking supply and better utilisation of existing parking will be undertaken in a strategic manner assisted by the short term forecasting tool and operations plan, as outlined in section 2.2 and 2.3.

The provision of logistical and resource advice to maximise the productivity of the existing parking resource and the development of additional car parks in strategic locations are key areas in which the Council needs to focus its attention. To enable staff to quickly respond to increasing and differing demands for parking and improve the short term metered parking occupancy rates, the setting of all metered parking fees has been delegated to the appropriate staff within the Council.

3.2. Private provision of public parking

The Council continues to encourage private interest in parking provision.

Short stay parking

The demand for short stay parking will most likely at times exceed what Council will be providing in some Central City parking zones. Much of this remaining demand will be met by reserve capacity in nearby zones, mechanisms to achieve better shared utilisation of all available parking stock (for example, time sharing the resource) and by private suppliers, as was the case before the earthquakes. The Council therefore continues to encourage private interest in short stay parking provision.

Long stay parking

As before the earthquakes, the majority of long stay parking to meet the needs of commuters and business will likely continue to be met by commercial developments. The An Accessible City provisions provide developers with much more discretion about how much employee parking they believe is right for their developments. Developers will be encouraged to consider parking demands for their developments and then choose the quantum of parking they will provide - up to 50 per cent of Gross Leasable Floor Area (GLFA). Where parking requirements cannot be met on site then developers might choose to liaise with other developers over opportunities for developing or leasing long stay car parks.

An Accessible City includes significant improvements to other transport options for workers to access the Central City. Increased walking, cycling and bus use, particularly by office employees, will affect the long stay parking demand. Park and ride facilities on the edge of the central city, could also have a role in meeting the long stay, commuter parking demand across the central city.

Developers will be encouraged to provide accessible sites, by all modes, to reduce the underlying need for expensive car parking, while retaining the option to provide tenant parking to developments if they wish. Developers may choose to undertake an Integrated Transport Assessment to determine appropriate levels of parking to suit an individual development's needs. An Integrated Transport Assessment (ITA) is a comprehensive review of the potential transport impacts of a proposed development. Guidelines for undertaking Integrated Transport Assessment are available on the Council website.

Opportunities

There are opportunities for developers who wish to build their own parking facilities for either long stay or short stay users. The parking model shows where long term demand is likely to be and potential locations for parking facilities, as shown in Figure 3.2.

Private sector investment in the provision of parking buildings is encouraged, and potential developers should contact the Council's Parking Unit of the Council in the first instance. It will coordinate feedback and welcome an open dialogue to ensure good provision of parking across the city. The Council will continue to make Parking Plan information available to the private sector to help inform investment decisions. All parking facilities should be designed to reflect the parking principles as outlined in section 2.1.

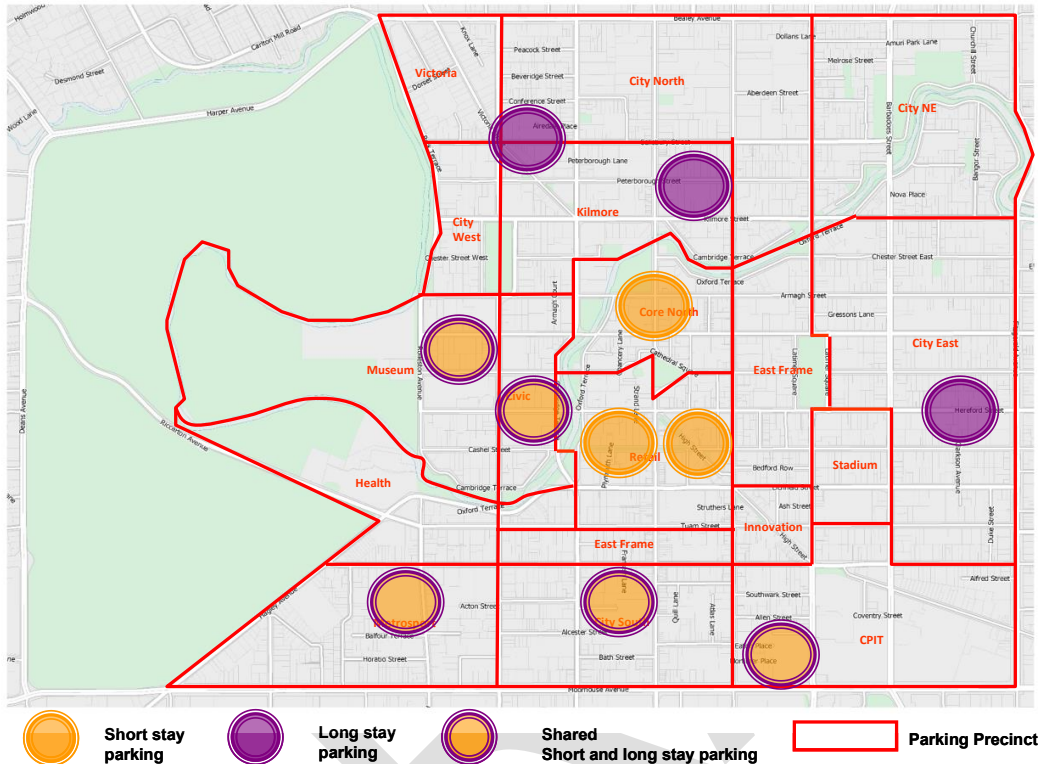


Figure 3.2: Indicative locations of parking supply.

3.3. Priority actions

Ten priority actions have been identified to progress the Parking Plan over the short term.

The Parking Plan sets out the long term vision for parking in the Central City. The Parking Plan and parking models need to be kept live and information regularly updated as the rebuild progresses. Parking, planning and management will continue to evolve through the recovery phases. The staging of implementation is illustrated in Figure 3.3.



Figure 3.3. Recovery timeframe and delivery of parking.

Ten priority actions have been identified to progress the Parking Plan over the short term. Council funding for parking provision will be considered in the An Accessible City programme business case and the Council Long Term Plan and Annual Plans.

#	Action	Indicative timing	Lead
1	Quick wins: Progress commitment to decisions on Lichfield Street and to gather options for central city parking provision through an Expression of Interest process.	2015	CCC
2	Temporary Parking: Short term forecast tool quarterly monitoring and recommendations of temporary facilities required to address shortfalls in parking in the short term. Integrated short term parking into LINZ tool.	Every quarter	CCC
3	Priority locations (Performing Arts, Health / Metro Sports, Civic and Retail): <ul style="list-style-type: none"> • Expression of Interest process to gather information on options for public parking provision and recommendations to Council. • Facilitate investment by private sector in parking provision. 	Varies between anchor projects	CCC CERA
4	Parking model: <ul style="list-style-type: none"> • Integrate short and long term parking model. • Develop management protocol, share model, and develop update process. • Update model as monitoring information becomes available. 	2015/16	CCC
5	Monitor: <ul style="list-style-type: none"> • Private supply of parking within developments. Further test supply assumptions as more information becomes available. • Supply of parking through the Anchor Projects. • Mode split at regular intervals and its effect on long stay parking demand. 	Quarterly then annually	CCC CERA
6	Communications plan: <ul style="list-style-type: none"> • Update parking website and make parking information available. • Communications, engagement meetings with interested parties, through existing forums. 	2015/16	CCC CERA
7	Operations: Prepare Operations Plan, workshop with Council, and Council approval. <ul style="list-style-type: none"> • Undertake a customer survey of parking needs to inform design of spaces. 	2015/16	CCC
8	Accessibility: <ul style="list-style-type: none"> • Develop accessibility model to test the relationship between the location of parking facilities on demand in different zones (e.g. outer zones and residential areas). • Traffic signage and cycle signage to parking and link to the wider AAC signage plan. • Investigate car clubs and park and ride options 	2016 / 17	CCC CERA
9	Cycle parking: <ul style="list-style-type: none"> • Investigate opportunities with Anchor Projects and within parking buildings for cycle hub and secure long stay cycle parking facilities, Investigate commercial models for providing cycle hubs. • Provide short stay cycle parking on key cycleways in the Central City as part of the AAC Transport Projects implementation. 	Ongoing	CCC
10	Design guidelines: Develop guidelines for parking buildings including use of future technologies	2015/16	CCC

3.4. Governance and management

The lead agency for the delivery of the Parking Plan is the Council. The Council and CERA will work closely with the private sector, who play a key role in delivering public parking.

The Council are the lead agency for the delivery of the Parking Plan because they are the Road Controlling Authority and responsible for decisions on Council parking facilities and parking management. Delivery of parking will be monitored and reported through a joint Council and CERA governance structure. This enables joint decision-making and ensures road controlling authority requirements are carried out.

The Council and CERA also work closely with the private sector, who play a key role in delivering public parking. The Council seeks to enhance information and engagement between the three groups to ensure delivery of parking is coordinated and timed to support the rebuild of the Central City. This relationship is illustrated in Figure 3.4.

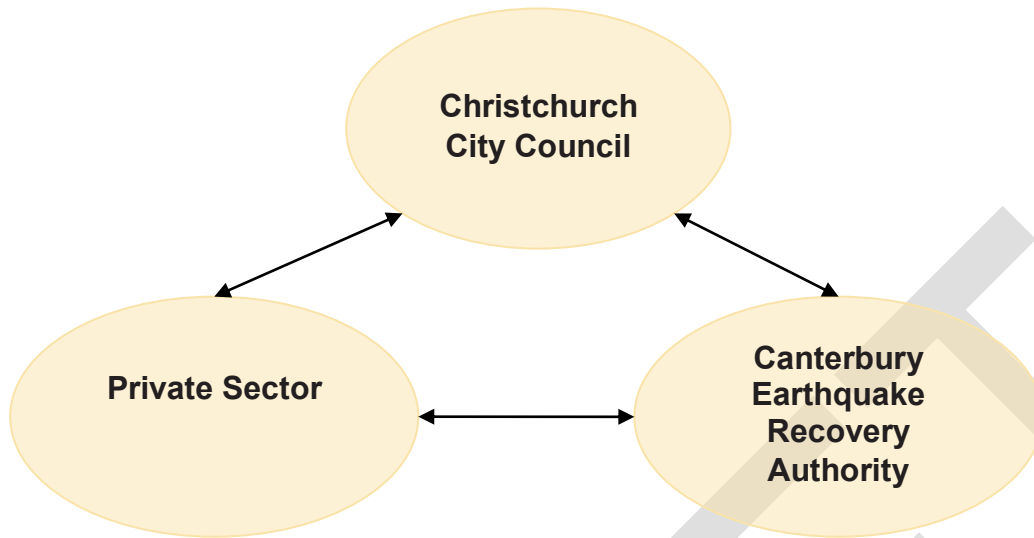


Figure 3.4: Delivery relationships.

Management of the parking plan

The information in the Parking Plan and within the parking models needs to be kept 'live' to ensure that information about the demand and supply of public and private parking remains current. This includes adding to existing information around Anchor Projects, temporary parking and planned public parking facilities. The models also need to be updated as new land use information is known, such as the Urban Development Strategy land use scenario. A management protocol will be developed to ensure that the model can be shared and used to inform parking decisions. When the model is updated, information within the Parking Plan and on the website will also be updated by the Council.

3.5. Communication of information and engagement

Parking provision is a high priority for many involved in the Central City rebuild.

There is currently a high level of demand for information on parking provision and a strong desire for increased certainty around current and future supply. Developers in particular want a clearer picture on parking provision and the Council's and Crown's intentions.

A key purpose of the Parking Plan is to provide information about the demand and supply of parking within the Central City and to identify and communicate the Council and Crown's intentions in parking provision. The Council, in a close partnership with CERA, will lead this engagement.

In the early stages of delivery, the Parking Plan will inform the public with information to assist them in understanding the parking problem, options, opportunities and solutions. Early information and key messages to the public about parking has already been provided through Frequently Asked Questions on the website, further information will be provided through the:

- Website
- Frequently Asked Questions
- Information leaflet or maps
- Briefings with interested parties
- Media releases.
- Wayfinding

Once decisions on the Council owned parking facilities are made, the parking projects will move into the design and construction phase. Public consultation will be an important part of this process under the Local Government Act 2002. A new project engagement plan will be established in preparation for public consultation.

Appendices

DRAFT

Appendix A: Parking principles

To assist with implementation of the general policy for parking, a range of parking principles have been developed to guide the expected outcomes of the Christchurch Central Parking Plan.

These parking principles are:

- Provide parking to support economic vitality.
- Council to prioritise public short stay parking (visitor) to support businesses.
- Locate all forms of parking to provide safe and easy access.
- Design all forms of parking to integrate with the surroundings.
- Manage all forms of parking to achieve high utilisation and incorporate smart technology where appropriate (such as electric pricing and electric vehicle and cycle charging).
- Minimise the on-street effects of servicing by providing service lanes.
- Taxi and coach parking support key precincts.
- Cycle parking is provided in addition to vehicle parking to support travel choices.

The basis of these principles is described below along with potential actions and results. Further discussion of each of the principles is included in the long term technical report.

Provide parking to support economic vitality

To ensure an effective recovery, it is essential that people can travel conveniently to key destinations within the Central City by a range of travel options, including by car, cycle and motorcycle. This will require parking for all modes to be provided throughout the Central City.

To satisfy the demand for parking, a large part of the Central City parking supply will need to be provided on-site as part of commercial development. Council-managed parking facilities will also be provided to support the short stay parking requirements, particularly for key precincts and destination areas. On-street parking will also be available, although at reduced levels compared with the pre-earthquake provision.

In some cases, the use of temporary demountable parking structures will be considered to provide for a flexible response to the rebuild.

Council to prioritise public short stay parking (visitor) to support businesses

Short stay parking encourages people to visit the central city and helps to support people accessing the business, retail and hospitality sectors. The Council's priority is to focus on supporting the provision of short stay parking to encourage visitors and to support businesses. Long stay parking is mostly associated with all day employee parking. Long stay can be delivered through both private developments and by a reduction in demand due to commuters to the Central City using other transport modes. This supports the direction and transport networks outlined in An Accessible City.

Locate parking to provide safe and easy access

Public parking buildings need to be located so that they can be accessed safely and efficiently from the supporting street network. Conflict between vehicles accessing the parking buildings and other road users is to be minimised to support travel by a range of travel options.

It is preferred that public parking buildings are located with access directly from local distributor streets. Accessing the appropriate type of street will minimise conflicts with other travel modes. Where practical, the parking buildings will also be located on the perimeter or outside of the Central City core to minimise the movement of vehicles within the Core. The use of way-finding technologies will assist drivers to locate available parking efficiently, minimising unnecessary vehicular movement on the street network.

Design parking to integrate with the surroundings

Parking buildings can dominate the surroundings and affect activity along their street frontage. Designing building facades to integrate with their surroundings can address the visual effect.

There is a preference for parking buildings to be located on mid-block sites that have continuously active frontages at street level that provide for other uses. The scale and layout of parking buildings should contribute to the usability and attractiveness of a facility, particularly for short stay users in and close to the Core, and users with special requirements such as those who are disabled.

It is anticipated that new parking buildings will typically be smaller than before the earthquakes. However, they need to be cost-effective with an economy of scale that justifies the implementation of state-of-the-art operational facilities. If they are too small they will be inefficient and may introduce more access intrusion to street frontages than is necessary.

The quality of the parking design can be as important as the quantity of spaces provided. Vehicle and parking technology will change over time, and the parking facilities should be future proofed to allow for those changes. Some parking and access design related provisions are included in the CCRP, although these typically only address minimum requirements and cannot be relied on by themselves to deliver a quality outcome. It will be important to have professional design assessment addressing traffic engineering and urban design best practice to achieve state-of-the-art design and integration.

Manage parking to achieve high utilisation and incorporate smart technology where appropriate (such as electric charging)

Greater utilisation of parking is to be achieved through planning, design, smart technology and management. Parking demand varies across the day and over the course of a week in each of the key precincts as different activities vary their contribution to the parking demands. Effective management of the parking resource will support these varying demands, whilst minimising the overall number of parking spaces required throughout the Central City.

Operational management procedures will provide the flexibility to influence the utilisation of vehicle parking spaces by means such as variable pricing, and prioritisation of spaces for particular parking stay durations.

In locating and designing parking buildings, opportunities for shared use parking will be assessed. Where there is a primary use for a parking facility, spare capacity at times of low demand may be managed to provide parking to support other nearby activities. This is expected to be particularly achievable for some anchor projects where their peak use will be either irregular or fall outside of the general Central City peak parking times. At other times it is anticipated that any spare capacity will be utilised to service parking demand from nearby activity. Options to incorporate smart technology, electric charging, one payment options will be incorporated where appropriate to make parking facilities easy and attractive to use,

Minimise on-street effects of servicing

Within the Core and Inner Zone, the development and use of dedicated service lanes will be encouraged to minimise the on-street effects of loading activity. As service lanes and access disrupt the active frontage of streets, integrated development is encouraged so that service access and service areas can be shared. Where service vehicles need access off pedestrian-only or shared space streets, their use will be discouraged during shopping and office hours. Access off main distributor streets will also be discouraged at peak travel times to ensure the road network operates efficiently.

Emergency vehicle access will be maintained at all times.

Taxi and coach parking support key precincts

Taxi facilities will be required as part of the development of key precincts and Anchor Projects within the Central City. Coach drop-off areas that service key developments such as hotels and the convention centre will be encouraged. To minimise effects on the surrounding area, coach layover areas will preferably be located where there are opportunities for public space to be shared, rather than allocating dedicated parking space.

Cycle parking is provided to support travel choices

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

Appendix B: Cycle parking approach

The calculations and figures used are based on the figures from the long term parking model.

The Parking Plan determines there will be a car parking demand of 35,700 spaces in the Central City. To calculate the estimated cycle parking demand in the Central City, the projections from the Parking Plan have been coupled with the transport mode share projections from CERA.

By 2041, CERA is aiming to triple the number of cycling trips undertaken in the Central City. This will equate to an 11 per cent cycling mode share. Using these figures it has been forecast that by 2026 the number of Central City cycling trips would have doubled, equating to a 7.4 per cent mode share.

Cycle parking demand

Generally, it is assumed that the long term (2041) demand for cycle parking in the Central City will be approximately 4000 cycle parks. This can be broken down to 2400 long stay cycle parks and 1700 short stay cycle parks.

The medium term (2026) demand is estimated to be approximately 2800 cycle parks. This can be broken down as 1600 long stay and 1200 short stay cycle parks. The table B.1 and Figure B.2 show the cycle parking demand for each parking zone.

The demand for short stay cycle parking will be provided by a mix of individual businesses, the Council and the Crown (through Anchor Projects). The cycle parking requirements for private developments have not been altered from those in Accessible City Chapter of the CCRP. In precincts where it is likely that there will be high private cycle parking provision then this has been accounted for and explained.

As outlined in the Christchurch Cycle Design Guidelines the most important aspects for short stay cycle parking (assuming the design is of adequate standard) is being in a 'quick' and convenient location to suit the user's needs, for example, close to a shop entrance. Long stay cycle parking should be secure, covered, ideally with locker and potentially showering facilities within places of employment. More information on cycle facilities can be found in the Christchurch Cycle Design Guidelines.

Precinct	2026			2041		
	Short Stay 2026	Long Stay 2026	Total 2026	Short Stay 2041	Long Stay 2041	Total 2041
Retail	201	394	591	299	586	879
Core North	125	103	212	186	154	316
Civic	47	155	192	70	230	285
Innovation	45	80	118	67	118	174
East Frame	41	20	53	60	29	79
Victoria	24	55	76	35	81	95
Museum	52	25	74	77	38	110
City West	1	1	2	1	1	2
Kilmore	32	87	118	48	129	175
City North	22	62	85	32	92	126
City North East	8	12	20	12	18	30
City East	37	75	112	55	112	167
Stadium	27	18	23	40	27	34
CPIT	69	69	140	102	102	207
City South	121	135	249	180	200	370
South Frame	36	65	100	54	96	147
Metro Sport	68	74	126	101	110	187
Health	199	208	407	296	309	605

Table B.1: Long and short stay parking demand 2026 to 2041.

Short stay cycle parking

Before the earthquakes Christchurch Central City had approximately 500 short stay cycle parks. In order to meet the projected 2026 demand for short stay cycle parking the number of short stay cycle parks required would be approximately 1200 stands. Figure B.1 shows the demand for short stay cycle parks for each of the precincts.

As outlined in the Christchurch Cycle Design Guidelines, the most important aspects for short stay cycle parking is ensuring they are in convenient locations to suit the user's needs, for example, close to a shop entrance. A comprehensive study from Copenhagen suggests that between 30 or 50 metres would be the maximum distance that people would be willing to walk from cycle parking to their end destination. Having short stay parking located more than 50 metres away from a destination will likely lead to people using street furniture to park their bikes. Using street furniture as cycling parking has an impact on the streetscape and can damage the street furniture.

International best practice is to provide covered short stay cycle parking. In order to promote cycling as a utilitarian form of transport then it is important to make cycle as attractive as possible, providing dry conditions to leave bikes improves the appeal of cycling. The advantages of providing covered cycle parking is that it prevents bicycles from rusting, and helmets (often left with a bike) and seats do not become wet whilst they are parked. Where there are verandas attached to shop frontages it may be possible to extend the veranda to cover the cycle parking without additional shelters. Examples of covered cycle parking can be found below.

Cities across the world are seeing an increase in cycling levels. In order to facilitate this cities are retrofitting the existing urban environment to accommodate short stay cycle parking. Cycle parks are often located in 'spare' urban space as a result of this retrofitting, which often has a negative effect on the urban environment. Locating on-street cycle parking poorly can also have safety implications. Too close to the road and there is a danger of people being hit by cars, too close to the main pedestrian thoroughfare and people may inadvertently walk into handlebars sticking out. With the rebuild of Central City streets there is an opportunity to plan the street environment to accommodate cycle parking into street design from the outset. Doing this would provide areas which are well designed and able to house more cycle stands if required in the future.

A good approach is to agree upon how and where cycle parking should be located in the street environment across the city so it is easily recognisable to cyclists. An ideal location for cycle parking would be between the path and the road, where on-street parking bays are currently located. Where possible, cycle parking areas should be an extension of the pedestrian area rather than being at road level. There should be ramped access onto the roadway to allow easy access to the area from the cycle lane.

The distribution of the cycle parks is an important consideration. Fifty metres is the maximum distance people are willing to park from a destination for short periods. To ensure that the Central City is adequately covered by cycle parking, and given the relative uniformity of the streets grid form (each block being 200m x 100m), the most effective way of achieving an even distribution would be to stagger cycle park locations along both sides of the street. This would equate to four cycle park locations for every 200 metre street section (two locations on both sides of the road) and two cycle park locations for every 100 metre street section. This means that no destination along the street will be more than 50 metres away from a cycle park on a single side of the street. Having the cycle parks staggered on either side of the road will ensure people not have to cross the road to reach their final destination. Using the Retail Precinct as an example, 34 different locations for cycle parking would be required across the precinct with enough room for six bikes at each location (or three cycle stands). This would meet the predicted demand of 201 cycle parks.

The staggered approach of cycle stands assumes an even distribution of land use. However, there may be sections of streets where there is an increased demand for short stay cycle parking, or sections where there is less demand. For this reason it is important that the specific location for each cycle stand group is carefully planned. Cycle fix-up stations are also becoming more familiar in urban environments.

Examples of on-street cycle facilities



Covered cycle parking with cycle information (Treehugger.com, 2008)



Fix-up station , Cashel Street (CCC, 2013)

Long stay cycle parking

The overall approach is to provide secure cycle parking of a high standard at locations where it is perceived there will be a high demand for long stay facilities. These secure parking facilities will be supported by a centralised 'cycle hub' facility which will provide facilities such as showers, lockers, changing rooms, towels, laundry service, mechanic facilities, DIY tools, cycle shop, full time staff during normal hours and 24 hour access and air conditioning. These will be similar to facilities found overseas. By having a good quality cycle hub facility in a central location, coupled with secure cycle parking locations across the city, it will provide for the needs of cyclists coming from far afield who need to shower and get changed in a central location. The satellite stations would then allow for cyclists who have final destinations relatively close (but not within walking distance) to the cycle hub to cycle the short distance across the city to the nearest secure parking facility to their destination. Here they will be able to feel comfortable about having their bike locked up for a long period.

The long stay demand and potential location of cycle facilities by parking zone are:

Core North

The Core North Precinct would provide an ideal location for the cycle hub facility. A high quality facility in this central location would not only directly serve the Core North precinct with the desired number of long stay cycle parks but would also absorb some of the high demand for long stay cycle parking generated by the northern part of the retail precinct as well as the East Frame. A facility in this area would also be well placed to serve cycling tourists. The rebuild of the Central Library provides a good opportunity to incorporate a cycle hub facility.

The estimated demand for this facility would be approximately 200 spaces for long stay users. Approximately 100 short stay spaces may also be included to accommodate a high demand for short stay parking. Although this facility is not proposed to be the largest in the Central City (in terms of parking provision) it is envisaged it will have the role of being the city's cycle hub.

Bus Interchange

The land use surrounding the Bus Interchange is predominantly retail. This has traditionally provided short stay cycle parks for customers rather than secure facilities for staff. This means that it is unlikely that long stay cycle parking facilities will be provided as part of these developments. It is likely the majority of the long stay demand will be provided in a single facility.

The Bus Interchange is likely to serve the cycle parking needs of the southern part of the Retail, South Frame and Innovation Precincts, and of course the people with bicycles using the bus network. The facility at the interchange should be secure.

The demand for cycle parks within this area is estimated to be 600 spaces by 2041. The Bus Interchange is under construction and it is unrealistic to expect this development to cater for the total 2041 cycle parking demand. The Bus Interchange will initially open with 100 cycle parks. It is estimated that an additional 300 secure long stay cycle parks should be provided in this area to meet the medium term demand in 2026. It is important the Bus Interchange's design is flexible, ensuring the space can be expanded for additional cycle parking in the future. Ideally this should be part of any leasing contracts for businesses in the Interchange.

There would also be a need to cater for a small number of short stay cycle parks. It is suggested that 293 short stay cycle parks would be required in the retail precinct. It is likely that the cycle stands positioned in functional locations dotted around the Retail Precinct would be better suited to meet the majority of this demand although some short stay cycle parking will be required at the Bus Interchange.

Museum/Civic

The Museum and Civic Precincts are relatively small therefore a facility located in either the Museum or Civic Precinct would serve both locations. There may be opportunities for this facility to be shared with an off-street parking building in this area. The estimated demand for long stay cycle parking in these precincts would be 268 spaces. Office developments in these Precincts should provide some staff cycle parking, therefore a lower level of long stay cycle parking will be needed to meet the demand. An estimated long term figure would be approximately 150 cycle parks.

Metro Sports/Health

The proximity of the Metro Sports and Health Precincts means it is possible to look at cycle parking demands for both these facilities at the same time. The majority of the cycle parking demand in the health precinct will be generated by the hospital. It is likely that the hospital will provide adequate long stay cycle parking for its staff. However there will also be ancillary businesses located in the Health Precinct and the need to cater for long stay visitors to the Health Precinct. An obvious location for a long term cycle parking facility would be the new Metro Sports Centre as this would allow for the potential of combining the showering and locker facilities which will already form part of the Metro Sports development.

Taking into consideration that the hospital will provide long stay cycle parking for its staff, it is estimated a long stay cycle parking facility at the Metro Sports Facility should provide approximately 200 to 300 spaces to meet the 2041 demand. To meet demand in 2026, 100 long stay cycle spaces should be provided (depending on the provision which the hospital provides). It is predicted there will be a high demand for short stay cycle parking at the Metro Sports Centre. This should also be catered for as part of the Metro Sports development.

Stadium/ City East/CPIT

The nature of the stadium development offers potential to provide secure cycle parking to meet the demands of the stadium as well as a proportion of the City East and CPIT precincts. It is likely the stadium development will not be fully utilised unless there is an event taking place, which will usually occur outside normal working hours. The site therefore offers a good opportunity to provide secure cycle parking facilities which could cater for the surrounding areas during working hours whilst also providing cycle parking at the stadium during events.

CPIT does provide cycle parking for some of its staff and students. However, there are other businesses located in this area which may not be adequately catered for. There may be an opportunity to negotiate with CPIT to allow its secure cycle parking to be used for general public use. If this option is taken forward then it would negate the need for secure cycle parking on the south east corner of the stadium development. The City East precinct has two predominant land uses, residential developments which are located towards the north and small business units located towards the south. Residential developments should provide for secure cycle parking provision. The cycle parking provided towards the north east corner of the stadium development would cater for any business requirements.

It is recommended that the stadium should provide for approximately 50 – 100 long stay cycle parking spaces. Ideally these should be split between the north east and south east corners of the site in order to accommodate the CPIT precinct and the City East Precinct. This level of provision would also serve the stadium during events.

City South

The nature of developments in the City South Precinct (retail/ small businesses) means it is unlikely that secure cycle parking will be provided by individual businesses. A secure facility would therefore provide for this Precinct, preferably in a central or slightly eastern location (some demand to the west of the Precinct will be accommodated by the Metro Sports). The estimated long term demand in the precinct is 200 spaces. However, Metro Sports will accommodate some of this, therefore a secure facility with lockers should be provided for approximately 150 long stay cycle spaces. Figures indicate there is a high demand for short stay parks in this area.

Victoria/ Kilmore/ City North

It is estimated there will be long stay demand for 300 cycle spaces in the Victoria/Kilmore/City North Precincts. The majority of this area, particularly City North and Victoria Street, is likely to be retail and smaller scale businesses and these are unlikely to provide long stay cycle parks. There is the highest demand for cycle parking in Kilmore Street. It is envisaged a single facility will be adequate to serve these areas.

The City North East precinct has not been considered for cycle parking as this area will predominantly be residential development. According to the District Plan, residential developments should provide cycle parking. The City West precinct has not been considered as there is very little demand for cycle parking in this area.

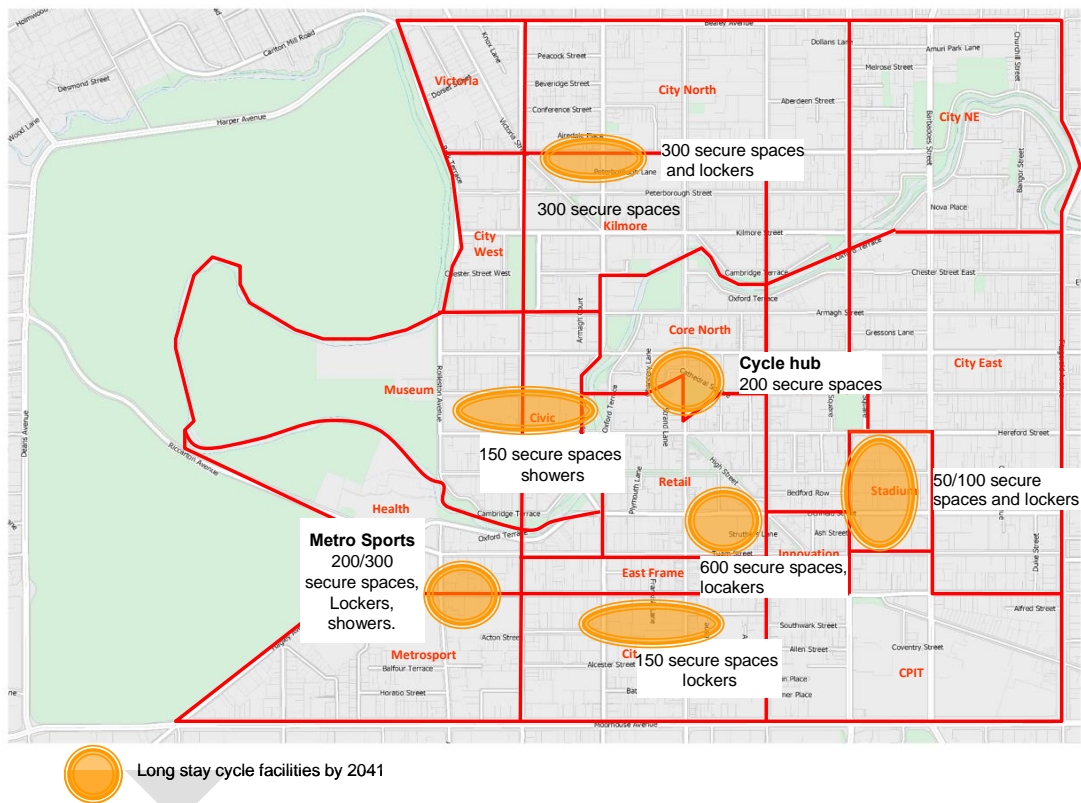


Figure B.1 The types of facilities and potential locations to accommodate the long term cycle parking demand.

Attachment 2: Summary of public workshop feedback and recommendations

This report provides an overview of the feedback from the Environmental Committee public workshop on the draft Christchurch Central Parking Plan (Parking Plan) and recommendations.

1. Background

The ERCOW Committee considered the proposed Parking Plan on 7 August 2014. At the meeting:

“The Committee considered a report seeking its recommendation that the Council endorse the Christchurch Central Parking Plan. It was decided to refer the report to the Environmental Committee meeting of 26 August 2014, with a view to setting up a public workshop to discuss the plan with key stakeholders, with the outcomes of these discussions to be reported back to the Council, before the Christchurch Central Parking Plan is endorsed.”

The workshop was held on 9 September for 2 hours in the Christchurch City Council function room. There was a good response to the workshop with around 75 participants.

At the workshop an overview presentation of the draft Parking Plan was given. This was followed by a workshop session, facilitated by Chris Mene. The process applied to the workshop gave the group an opportunity to co-create the frame of the workshop, giving them ownership over the issues discussed. The issues covered included the key topics within the draft Parking Plan:

1. Parking principles
2. Short term parking
3. Long term parking
4. Cycle parking
5. General parking comments

2. Key themes

The overall response to the Parking Plan was supportive of the approach, however there were key themes that were commonly raised throughout the workshop:

1. There is an urgent need to provide for parking in the short term and to rebuild Lichfield Street parking building. Short term parking (from now to 2017/18) is needed to meet the needs of the retail precinct, government departments, returning organisations and the emergency services, health and justice precincts.
2. Ongoing engagement on parking, especially with the business community, would support more effective planning and decision making on parking.
3. Parking in the context of the rebuild is a complex issue. There is ambiguity and uncertainty around demand and supply. The parking plan starts to address this. However there are questions over the underlying assumptions for the demand and supply rates. The information should therefore be used to guide, not limit parking supply.
4. There is a desire for more certainty around parking provision being provided by the Council and the Crown, especially in Anchor Projects.

Workshop participants feedback on the draft Parking Plan has been summarised by topic based on the key issues discussed at the workshop, in Appendix 1.

3. Recommendation

In response and consideration of the feedback heard at the public workshop, staff recommend the following:

1. Revise the plan and take it to Council for approval following review on the model assumptions. The revised plan will include:
 - Review of the assumptions and sensitivity test of the numbers in the parking model. Potentially include a range of parking numbers to show future demand.
 - A statement in the Guiding Principles on electric charging.
 - Confirmation that the operations plan will consider and investigate options for smart technology, electric charging, one card payment, time of day management and the possibility of coupon charging.
 - A discussion on residential parking.
 - Additional actions in the delivery plan. These are to:
 - Investigate car clubs and park and ride.
 - Investigate commercial models for providing cycle hubs
 - Council strengthens its role in providing cycle parking in the central city.
 - Develop the operational arrangements for signage that will provide clear signage for those wishing to access car and cycle parking and link this to the wider AAC signage action.
 - Ongoing engagement on parking through existing community forums and liaison with developers, major parking users and providers.
2. Council and staff to urgently progress decisions on the Lichfield street parking building, including demolition and rebuild.
3. Apply the model to help guide (not control or limit) supply decisions for both short term (what is provided now) and long term parking (what needs to be provided by 2041).

Appendix 1: Workshop Summary of responses

Workshop participant feedback on the draft Parking Plan has been summarised by topic based on the key issues discussed at the workshop and received by email.

Short term parking

There were a range of comments on short term parking, these included:

- There is urgency over rebuilding Lichfield Street and short term parking.
- Provide more clarity on exactly what Council and the Crown will be delivering. There is an urgent need for more car parking from 2016/ 17 when government workers and other organisations return to the central city.
- There is concern that the short term parking numbers and assumptions are incorrect when compared to parking in the key activity centres outside the central city.
- Design parking buildings to be flexible in the future (able to change in size or use).
- Parking needs to be customer focused, easy, inexpensive and provide for a range of parking needs: electric vehicles, mobility parks, car, campervan, bus, bike, motorcycle and construction.
- Council needs to support the commercial viability of car parks with subsidies or development levy.
- Create a development template for parking buildings.

Long term parking

There were a range of comments on short term parking, these included:

- There is a need to test the parking assumptions, these need to be updated in light of current parking provision in new builds and reflect provision outside of the central city.
- There is concern that the forecasts under estimate parking need. It is better to over provide than under, especially in the core. Workers returning to the Core will need long stay parking.

- There is concern over whether it is wise to forecast long term demand on assumptions which are later found to be incorrect.
- There is concern over the location of long stay parking outside of the Core which could be a safety issue at night.
- The Plan should identify the customers and seek their feedback – where and what facilities do people want?
- Provide short stay for more than cars, also motor homes, motor cycles, bikes.
- Introduce coupon charging so that users can reclaim the cost of parking after using a service.

Delivery plan

The main comments included:

- The timing and speed of delivery are essential. Parking needs to drive recovery not act as a bottleneck.
- There is a risk that provision of temporary parking over a longer period will affect the viability of permanent parking facilities.
- More clarity is needed on what supply the Council and the Crown will provide.
- Questions on whether the numbers are right, particularly short term numbers which could be too low.
- Anchor projects are not providing enough parking and therefore increasing the problem. Especially in the short term for contractors. This could be addressed with Park & Ride.

Guiding principles

General support for all of the principles with specific comments on the following:

- Clarify the role of the Council, Crown and private sector.
- Provide parking to support economic vitality. This principle should better reflect all modes, with parking for electric vehicles, cars, taxis, buses, coaches, courier, trucks and cycles.
- Prioritise public short stay parking (on and off street) to support business. Support for this principle, this should be a Council priority.
- Central city car parking should be integrated with the wider transport plan; and to ensure that the parking strategy stays ahead of the rebuild and doesn't become a bottle neck.

Cycle parking

Overall the comments on cycle parking were supportive with some suggested actions:

- Use a commercial model for providing cycle hubs.
- Provide cycle parks close to the key cycleways, destinations and provided in anchor projects.
- Cycle parking needs to be delivered now.
- Safe cycle parking, with Crime Prevention through Environmental Design principles.
- One card to pay for bus / cycle / car parking.
- Cycle sharing scheme.
- Consider cycle signage.
- Provide lockers as well as parking.
- Review District Plan provisions to increase cycle parking in private developments.

General parking comments

A number of general comments were raised, including:

- Mobility parks need to be prioritised.
- Provide more clarity over residential parking and on-street demand.
- Do not consider parking in the central city in isolation to the rest of the city.

- Provide electric charging points.
- Consider access and parking for service vehicles.
- Time of day supply and pricing to ensure good utilisation of private parking.
- Integrate all modes, introduce car clubs and use smart technology to manage demand.
- Sensitivity test assumptions.
- Confusion over parking terminology – short term / short stay and long term and long stay.

The following attendees were recorded at the public workshop, some attendees did not sign in.

NO	Name	Organisation	Attendance
1	Adam Busson	CCC	
2	Alan Stewart	Calder Stewart Development	
3	Alistair Pearson	CERA	
4	Andre Lovatt	Arts Centre	
5	Andrew Carter	Carter Group	
6	Angus Bargh	CERA	
7	Antony Gough	The Terrace and CCBA	
8	CJ Juby	Government Precinct	
9	Craig Nicholas	Investor CBD	
10	Craig Waghorn	Apollo Projects	Apologies
11	Cuth Lee	OLT Properties Ltd	Apologies
12	Darren Henderson	Christchurch Casion	
13	Darryl Okeefe	CCC	
14	Dave Hinman	CCC	
15	David Corlett	CERA	
16	David East	Environment Committee	Apologies
17	Dirk De Lu	SPOKES	Apologies
18	Evan Harris	Colliers	
19	Fiona Clayton	CERA	
20	Fiona Haynes	CPIT	
21	George Schwass	Canterbury Disctrict Health Board	Apologies
22	Glen Koorey	University of Canterbury	
23	Greg Bassam	CCC	
24	Hamish Doig	Colliers	
25	Jasper van der Lingen	Sheppard & Rout Architects Ltd	
26	Jimmy Chen	Environment Committee	
27	Jo Carey		
28	Jock Muir	Strategic Projects (CDHB)	
29	John Skevington	Canterbury/West Coast Automobile Assn. District Council	
30	Joshua Neville	Generation Zero	
31	Justin Hygate	Justice Precinct	
32	Kaila	Ministry of Awsome	
33	Kaila Colbin	TED Christchurch	
34	Kevin Arthur	Calder Stewart Development	
35	Kevin Warwood	CCC	
36	Leanne Keenan	Disability Advisory Group	
37	Liam Nolan	CCC	
38	Lorraine Rouse	Retail New Zealand	
39	Mary Devine	Carter Group	
40	Meg Christie	Living Streets	
41	Michael Blyleven	NZTA	
42	Michael Flatman	ChCh and Canterbury Tourism	Email

NO	Name	Organisation	Attendance
43	Monique Fowler	CERA	
44	Nick Bryan	Canterbury Development Corporation	
45	Nick Hunt	Lichfield Holdings	
46	Paul Burden	CCC	
47	Paul Lonsdale	Councillor	Apologies
48	Paul McKeefry	Government Precinct	
49	Pauline Cotter	Environment Committee	
50	Peter Guthrey	Guthrey	
51	Peter morrison	Hotel Association	
52	Peter Townsend	Canterbury Employers' Chamber of Commerce	
53	Phil Clearwater	Environment Committee chair	
54	Philip Richards	Ballantyne and CCBA	
55	Philip Smith	Guthrey	
56	Richard Osborne	CCC	
57	Rob Kerr	CERA	
58	Rob Logie	Leighs Construction	
59	Rob Mcintyre	ACCOR	
60	Ross Webb	Worldwide Parking Group	
61	Rowena Watson	New Regent Street	
62	Roz Paddy	Guthrey	
63	Ruth Hudson	CCC	
64	Sarah Ryan	Tailorspace	
65	Steven Britt	CCC	
66	Steve Clarke	CERA	
67	Steve Collins	Harcourts	
68	Steve Evans	Wilson Parking	
69	Steven Perdia	Canterbury Development Corporation	
70	Tim Cheesebrough	CCC	
71	Tim Glasson	Glasson	
72	Tim Scandrett	Environment Committee	
73	Tim Taylor	EECA	
74	Tony Carey		
75	Vernon Aubrey	Wilsons	

INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE - 2. 4. 2015

9. INFRASTRUCTURE REBUILD MONTHLY UPDATE

		Contact	Contact Details
Executive Leadership Team Member responsible:	Director FIR Group	N	
Officer responsible:	General Manager Infrastructure Rebuild	Y	
Author:	John Mackie	Y	0220842950

1. PURPOSE AND ORIGIN OF REPORT

- 1.1 The Facilities and Infrastructure Rebuild team was established in September 2014 to focus almost entirely on rebuild related projects while the business as usual activities of Council Operations was transferred into the Chief Operations Officer's unit, to deal with the day to day activities of running the city.
- 1.2 The Infrastructure Rebuild Unit is responsible for delivering the repair and rebuild of earthquake damaged horizontal infrastructure (including three waters, roading and some infrastructure related greenspace projects) whether by the Stronger Christchurch Infrastructure Rebuild Team (SCIRT) or other contractors outside the alliance.
- 1.3 The total value of the infrastructure rebuild programme is in the order of NZ\$3 billion, subject to final funding approvals.

2. EXECUTIVE SUMMARY

- 3.1 The infrastructure rebuild unit is responsible for the delivery of all horizontal infrastructure rebuild projects that are eligible for funding under the Christchurch City Council-Crown cost share agreement. This includes earthquake damaged transport assets, water and wastewater networks, stormwater and land drainage facilities as well as a limited number of green-space assets such as memorials, statues and retaining walls. The attached information provides an update on both SCIRT and non-SCIRT horizontal infrastructure works based largely on the previous month end progress results and highlighting recent activities to date.

3. BACKGROUND

- 3.2 The attached report (**Attachment 1**) is a brief summary of key activities carried out through the month in both SCIRT and non-SCIRT work programmes and the most recent SCIRT Handover Report is shown at (**Attachment 2**).

4. COMMENT

- 4.1 Please refer to the commentary outlined in the attached report.

5. FINANCIAL IMPLICATIONS

- 5.1 Please refer to the summary contained in the attached report.

6. STAFF RECOMMENDATION

That the Infrastructure, Transport and Environment Committee receive the information in this report.



Infrastructure Rebuild Report



March 2015

John Mackie
General Manager
Infrastructure Rebuild

Table of Contents

1. Introduction	3
2. Activities for the Month	3
3. Health and Safety	7
4. Environmental	9
5. Quality.....	10
6. Financials.....	10
7. Programme	11
8. SCIRT Projects in Handover	11
9. Communications and Engagement.....	13
10. People	14

Attachments

SCIRT Handover Report 16 March 2015

1. Introduction

The infrastructure rebuild unit is responsible for the delivery of all horizontal infrastructure rebuild projects that are eligible for funding under the CCC-Crown cost share agreement. This includes earthquake damaged transport assets, water and wastewater networks, stormwater and land drainage facilities as well as a limited number of green-space assets such as memorials, statues and retaining walls.

This report provides an update on both SCIRT and non-SCIRT horizontal infrastructure based largely on the previous month end progress results and highlighting recent activities to date.

2. Activities for the Month

The following table outlines the SCIRT life-to-date progress on repairing the horizontal infrastructure (roads and 3 waters) for the period ended 28 February 2015.

Table 1: SCIRT infrastructure rebuild progress as at 28 February 2015

			Network Total	Current in Scope	% of Network	Estimated Construction Complete	% Complete
Wastewater	Reticulation	km	1613	659	41%	353	54%
	Pump Station repair	No.	164	59	36%	32	54%
	Pump Station new	No.		31		17	55%
	Lift stations	No.		65		27	42%
Water Supply	Reticulation	km	2843	69	2%	51	74%
	Pump Stations & Reservoirs	No.	220	73	33%	64	88%
Stormwater	Reticulation	km	329	26	8%	14	52%
	Pump Station repair	No.	38	7	18%	3	43%
	Pump Station new	No.		3	-		
Roading	Carriageway	m ²	11671807	1320375	11%	483,776	37%
	Bridges/ Culverts	No.	224	149	67%	102	68%
	Retaining Walls	No.	490	216	44%	75	35%

2.1 Transport Rebuild

Sumner Corridor

On 24 February the Horizontal Infrastructure Governance Group (HIGG) approved funding and agreed on a scope of works to allow the project to reopen Sumner Rd to get underway. HIGG approved an initial \$40million for works to open the road including the excavation of three benches. A further \$20 million may be required to excavate another four benches depending on the conditions that are encountered. HIGG also approved \$20 million for the remedial works required on the four sites on the city side of Sumner (Wakefield Ave, Clifton Hill, Deans Head and Moe Point).



Sumner Rd Photo for Report Cover

Mass Movement

Quarry Main - Earthworks are now complete and slope remediated. Landscaping to following in March/ April

Defenders Lane - Currently in construction, due to be completed by the end of June.

Maffeys Rd and The Brae locations - continuing to resolve property issues and finalise scope of works.

An Accessible City

TP1a/5 (Hospital Corner and Hagley Ave) - Construction continues and is expected to be completed by the end of April.

TP9-11 (Tuam, Colombo, Lichfield) - Construction continues and is expected to be completed by the end of April to coincide with the opening of the Bus Interchange.

New Brighton Pier - During the month of February the final claim was submitted to the insurance company and Council is now awaiting decision. Early commencement of repairs will mitigate further deterioration.



Photo showing the damage to one of the Pier Columns

Lichfield St Carpark - An Expression of Interest was released to the market during February seeking submissions from suppliers for the provision of Off Street Public Parking Solutions in the Central City across a wide range of criteria.

The purpose of the EOI is to seek interest, through market proposals across the entire off street public parking supply chain provision; spanning land, funding, design, construction, operation, maintenance, ownership and complementary / value add services. The EOI has been broken into two parts as follows:

Part A – Lichfield Street Car Park replacement solution, to solicit provision of options specific to that location that will encompass parking structures, land, funding, cycle parking, innovation and technology. Those options will in turn demonstrate how they would integrate with and serve adjacent development.

Part B - Wider central city public off-street car parking infrastructure and service options, to solicit a range of options across the city-centre that will encompass parking structures, land, funding, management operations, appropriate innovation and technology and cycle and motorcycle parking provision.

The expression of interest is due to close on 25 March 2015.

The demolition of the existing Lichfield St carpark building is programmed to commence on 30 March 2015 and be completed by the end of October 2015.

2.2 CWTP (Wastewater Treatment Plant) Restoration

Structural repairs to Digester 3 have been completed, CWTP is now undertaking some deferred maintenance work to the roof and expects to recommission the digester

towards the end of April. Planning is underway on the decommissioning of Digester 5 which will start once Digester 3 is recommissioned.

Trickling Filter 1 restoration works continue to good progress, the new outflow pipe is complete, repairs have been completed to the undercroft and work is underway on stripping off the air plenum to gain access to undertake the ring beam repair.

During the structural assessment of the undercroft, areas of severe concrete corrosion were discovered, restoration work to the corroded concrete is underway (not EQ related) and is expected to be completed by 19th March at which stage TF1 will be recommissioned. Due to this delay in recommissioning, TF2 decommissioning will be deferred to next summer (The plant can only operate on 1 TF during periods of low average flow ie summer)

2.3 Water Reticulation, Reservoirs and Pumping

A number of water supply assets were damaged during the earthquakes which are not included within SCIRT's scope includes 147 wells (and headworks) and around 62 pump stations.

Out of the 12 wells to be redeveloped, development of 11 wells has been completed and 1 in progress (92% complete)

Out of 16 confirmed wells to be replaced, 10 wells have been commissioned and handed over and work on the balance 6 is in progress. Jeffreys Station, which has 3 wells, is in a HAIL (Hazardous Activities and Industrial Land) site. Soil investigation needs to be done before proceeding with headworks. (62% complete)

All the above works is planned to be complete by end FY17

Decisions regarding relocation of Bexley (2 wells) and Averill pump stations (3 wells) are still to be confirmed and presently being investigated. The 2 water supply pumping stations (Bexley and Averill) make up the additional 5 wells to be either redeveloped or replaced.

2.4 Stormwater and Land Drainage

Following the resolution of 12 December 2014, a report will go to Council 26 March on Dudley Creek. This report will update Council on progress including the award of a contract for design services that was made recently and the further public engagement process planned. Officers have been working with CERA on a process for consenting Residential Red Zone access that is needed for both downstream options. A report on the preferred downstream option will be presented to Council in July 2015. Despite delays in returning to Council for a decision on the options, the works programme currently remains unchanged, with a targeted completion by winter 2017.

The Tay Street Drain Pump Station works continue to progress and the pump station is due to be commissioned and fully operational in April 2015. If there is heavy rain in the meantime, an interim plan will see temporary pumps remove floodwater through the newly constructed rising main. This is in addition to Task Force works completed so far that has already reduced the risk to residents in the Flockton area. An existing significant storm event emergency plan that includes temporary pumping etc. will also serve to reduce impacts of future storm events. Residents in the area have been updated on the works undertaken so far and the interim planning that is in place.

Consultants are carrying out a pre-feasibility study into a potential tidal flood barrier for the Heathcote Estuary. The study will advise on the potential type and location of a barrier, what the benefits may be, together with an indicative cost estimate, and of course, if it would work. Experts from the Netherlands and from NIWA are advising. An

interim report is due late March and a final study report by early May. A peer review is being arranged.

The Land Drainage Recovery Programme has been prioritised and optimised on the basis of current information. A draft programme of investigations and works has been included in the draft LTP with a focus on the first three years with \$40-60m per year followed by an annual budget of \$20-25m over the 30 year period of the LTP. Investigations are being commissioned that will help determine the actual proposals, priorities, and works delivery programme, but will focus on high priority areas such as the Avon and Heathcote.

3. Health and Safety

The following table details the Health and Safety statistics for the Infrastructure Rebuild Group including SCIRT, Water and Waste Rebuild, Transport Rebuild, non-SCIRT and Land Drainage Rebuild projects for the month of February 2015

Table 2: Health and Safety Statistics
Christchurch City Council - Facilities and Infrastructure Rebuild



Health and Safety Statistics - Month of February 2015

	IRG Totals	Land Drainage	Water Waste	Transport	SCIRT	Non-SCIRT
Near Misses	447	0	0	0	447	0
First aid injuries (FAI)	10	0	0	0	10	0
Medical Treatment Injuries (MTI)	0	0	0	0	0	0
Lost Time Injuries (LTI)	0	0	0	0	0	0
No. of days lost to LTIs	0	0	0	0	0	0
No. of hours worked	216,885	856	280	3900	208,749	3,100
LTIFR	0	0	0	0	0	0
MTIFR	6	0	0	0	6	0
TRIFR (LTI + MTI)	6	0	0	0	6	0

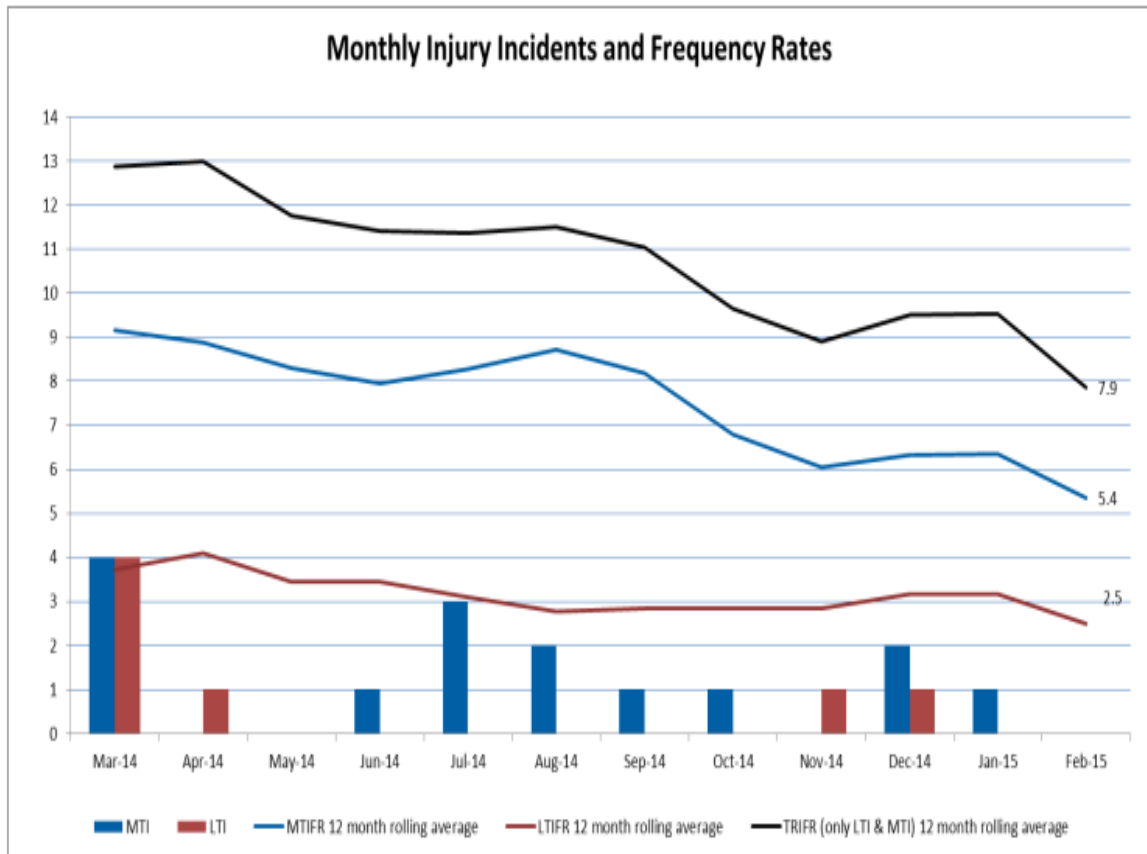
Health and Safety Statistics - Year to Date February 2015

	IRG Totals	Land Drainage	Water Waste	Transport	SCIRT	Non-SCIRT
Near Misses	9,223	0	0	5	9,216	2
First aid injuries (FAI)	318	0	0	1	315	2
Medical Treatment Injuries (MTI)	64	0	0	1	63	0
Lost Time Injuries (LTI)	27	0	0	0	27	0
No. of days lost to LTIs	173	0	0		173	0
No. of hours worked	8,944,173	1,712	560	7800	8,917,542	16,559

SCIRT						
LTIFR ¹ (12 month average)	2.5	0	0	0	2.5	
MTIFR ²	5.4	0	0	0	5.4	
TRIFR ³ (LTI + MTI)	7.9	0	0	0	7.9	

1. Lost Time Injury Frequency Rate
2. Medical Treatment Injury Frequency Rate
3. Total Recordable Injury Frequency Rate

SCIRT Injury Occurrence and Frequency Rates



Notes:
 MTIFR - Medical Treatment Injury Frequency Rate
 LTIFR - Lost Time Injury Frequency Rate
 TRIFR - Total Recordable Injury (MTI + LTI)
 All Frequency Rates based on 1 million hours worked

4. Environmental

Two incidents of significance occurred during the month one involving a dust nuisance from a SCIRT temporary depot (now in the process of being dis-established) and a dewatering system that resulted in the depletion of an adjacent stream flow. An investigation is on-going.

A very productive meeting was held with Heritage New Zealand personnel in an effort to step up regular communications and engagement between our organisations in order to capture and preserve significant relics of our heritage during the course of the rebuild. Regular liaison meetings have been scheduled to ensure we are aligned on matters of mutual interest.

New resource consents and archaeological authorities have been obtained for the Port Hills mass movement works.

Table 3 – Environmental Statistics

The table below lists the Programme Environmental statistics for the month.

Description	Feb-15	LTD
Quality of Environmental Auditing Result - Programme	84	85.6 12 Month Average
Environmental Hazards	47	3,772
Environmental Opportunities	2,048	29,889
Environmental Team Initiatives	6	254
Community Organised Events	0	89
Number of Environmental Incidents	16	926
Infringement Notices	0	0
Abatement Notices	0	1
Criminal Legal Proceedings	0	0
Fines	0	0
Waste Management Audit Score	0	4
Environmental Near Miss	17	346
Environmental Audits	188	4,388
Major Environmental Non-compliance	0	6
Environmental Compliance Questionnaire	1.1	1.3 12 Month Average

5. Quality

The number of non-conformance reports in SCIRT was reduced by 20 over the past month which is a good result overall.

Table 4 Non Conformance Report

Open For	City Care	Downer	Fletcher Construction	Fulton Hogan	MacDow	SCIRT Total
0-3 Mths	9	4	5	2	6	26
3-6 Mths	20	6	5	5	9	45
6-9 Mths	15	1	5	2	1	24
9-12 Mths	12		2		8	22
> 12 Mths	11	1	1	1	3	17
Team Total	67	12	18	10	27	134

6. Financials

6.1 Independent Review of the CSA

Work has continued on developing the financial model for rebuild estimate to give the three funding partners clarity on the financial position relating to each of the funding caps. This tool will be used to inform the independent reviewer of the total expected cost of the horizontal infrastructure rebuild. A workshop was held on 27 February 2015. A final report from the independent reviewer is anticipated early April 2015.

6.2 City Wastewater Treatment Plant Restoration

Progress on resolving claims with the insurers has led to the CWTP restoration works being prioritised and programmed to mitigate the financial burden and risk associated with implementing restoration works ahead of agreements to settle being in place with the insurers. A claim for all works completed and planned was lodged with the insurers.

The major reinsurer's (AIG) loss adjustors & engineers are meeting with Councils engineers and claim team on the 19th March to further discussions on agreement of the damage and scope of repairs to be included in any settlement of the CWTP claim.

Restoration works which do not represent a short term risk have been deferred pending settlement with the insurers. Works which are continuing, as the damage creates a risk to the treatment process, are the repairs to the Trickling Filter ring beams and discharge pipes & the cleanout and repair of the digesters.

To date \$46,634,474 has been spent on restoration of EQ damage to the Treatment Plant (including the ponds). The claim lodged indicates that it will cost a further

\$33,529,695 (excluding deferred repairs to the Tricking Filter internals) to restore the plant over the next 4 years to the condition the Council is entitled to under the wording of the policy. Planned expenditure, based on all claimed works being approved is:

YR 14/15	\$4,155,303
YR 15/16	\$9,235,455
YR 16/17	\$9,500,000
YR 17/18	\$12,902,405 (incl \$3,597,927 contingency for undiscovered damage)

Table 5 - Expenditure to Date (yr 14/15)

	Budget Yr 14/15	Year to Date - 20 Jan 15	
New Projects	\$2,657,239	\$15,731	Deferred Pending Insurance Settlement Complete
Outlet Structure	\$273,435	\$19,286	
Buildings	\$700,000	\$0	Deferred Pending Insurance Settlement
Digesters	\$2,600,000	\$975,447	
Tricking Filters	\$3,439,379	\$1,486,124	Deferred Pending Insurance Settlement
Galleries	incl buildings	\$0	
General Civil & Structural	\$225,804	\$153,339	
	\$9,895,857	\$2,649,927	

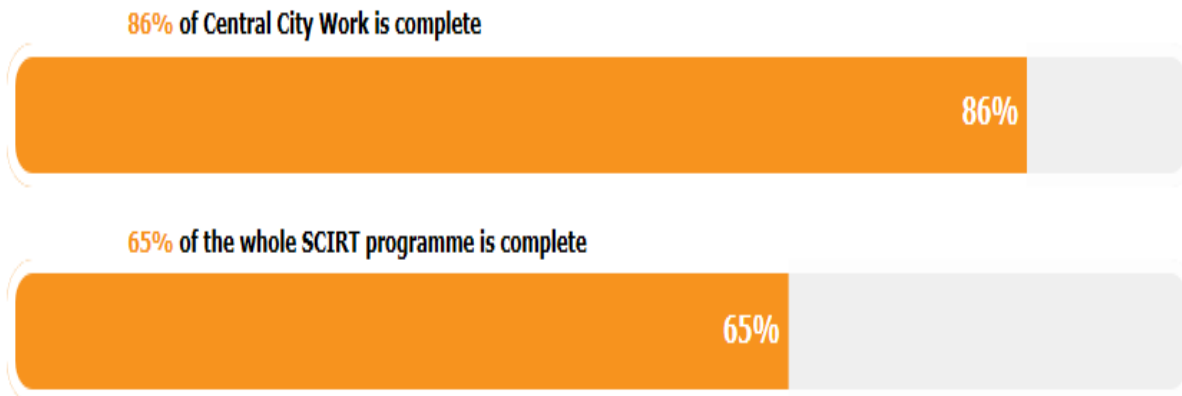
6.3 SCIRT Financial Summary

Table 6: SCIRT Results to February 2015

Programme	Life to Date	Cost to Complete	Forecast Final Cost	Percent Complete (based on FFC)	Percent of Programme Cost (based on FFC)
Asset Assessment	129,213,386	7,128,878	136,342,264	95%	6%
Design	124,304,542	15,843,606	140,148,148	89%	6%
Delivery	922,005,554	568,578,952	1,490,584,506	62%	65%
Total Direct	1,175,523,482	591,551,436	1,767,074,918	67%	77%
Delivery Indirect	90,262,791	57,420,342	147,683,133	61%	6%
SCIRT Indirect	104,716,613	36,224,106	140,940,719	74%	6%
Total Indirect	194,979,404	93,644,448	288,623,852	68%	13%
Limb 1	1,370,502,886	685,195,884	2,055,698,770	67%	89%
Limb 2	160,772,941	88,755,635	249,528,576	64%	11%
TOTALS	1,531,275,827	773,951,520	2,305,227,346	66%	100%

7. Programme

Table 7: SCIRT Summary Programme February 2015



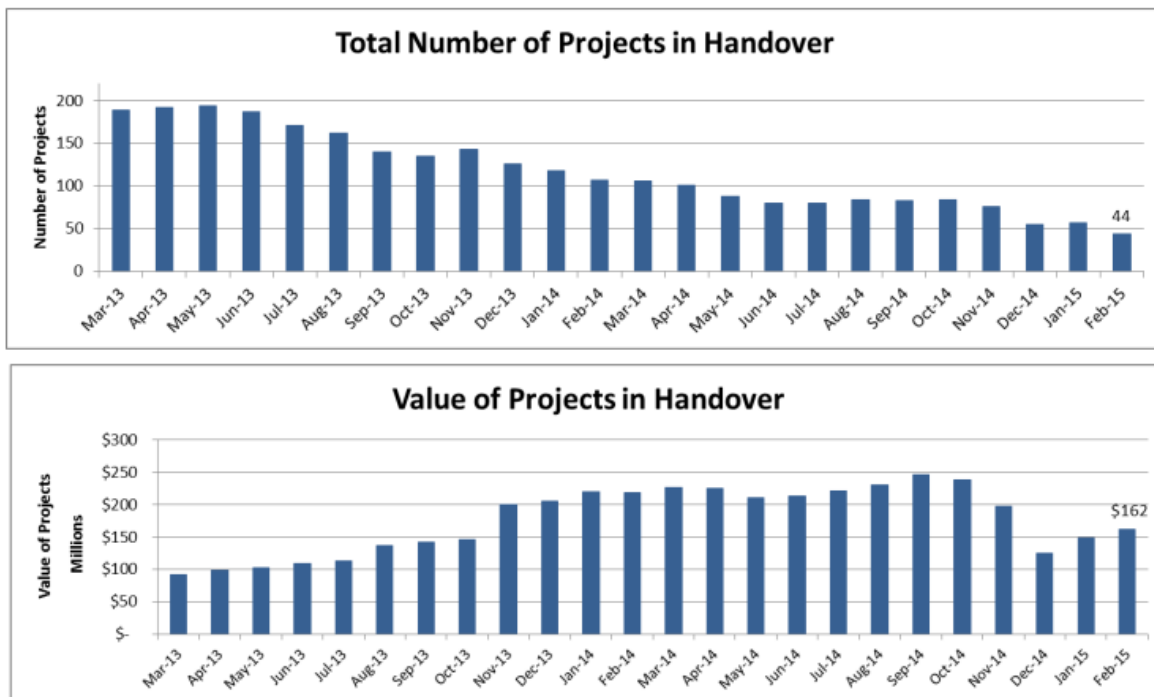
8. SCIRT Projects in Handover

The duration of projects in Handover is a maximum of 3 months and an average target of 1.5 months, currently this is 3.1 months or 1.6 months higher than the required average. The target for projects into Handover by 31 March 2015 is \$660m currently it is at \$550m

Practical Completion currently is at \$385m with a target of \$640m by June 2015.

See handover report appended as **Attachment 1**.

Table 8 – SCIRT Handover



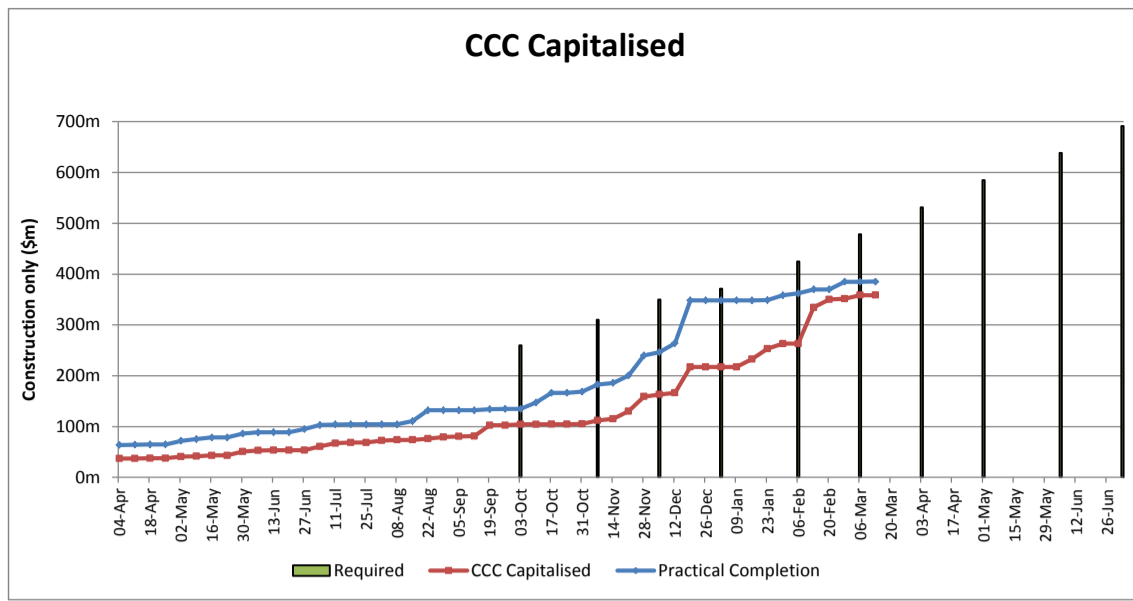
9. Communications and Engagement

Table 9 – Summary of Work Notices and SCIRT Communications

BULK COMMUNICATION	CITY CARE	DOWNER	FLETCHER	FULTON HOGAN	MCCONNELL DOWELL	IST	TOTAL FOR MONTH	RUNNING TOTAL SINCE AUGUST 2011	Last month's total
Work notices/updates produced	29	29	53	31	45		187	4,500	173
Number of work notices/updates (appx)	3,170	7,417	8,647	3,424	7,211		29,869	1,072,348	37,794
Email Updates produced		11	8				19	278	43
Email updates - number of recipients**		543	11				554	1,209	655
Website updates						140	140	4,253	147
E-newsletters						1	1	193	1
Tweets						174	174	3,899	117
Face-to-face interactions (door-knocking, drop ins appx)	22	115	315	59	185		696	26,133	1,738
Meetings/presentations/briefings	1	65	24	3	1	3	97	2,708	19
Consultation projects (since April 2012)							0	92	0
Number of school visits		1	3		1		5	132	0
Public display/event			1				1	96	0
Public display/event attendance			1				1	31,827	0
Signage installed (excluding traffic signage)		26	7	42	20		95	4,252	69
Responses to hotline	50	49	132	51	46	4	332	14,709	414
Responses to email	13	65	52	43	16	45	234	8,562	249
Advertisements*						560	560	2,773	304
Media coverage						24	24	735	31

10. People

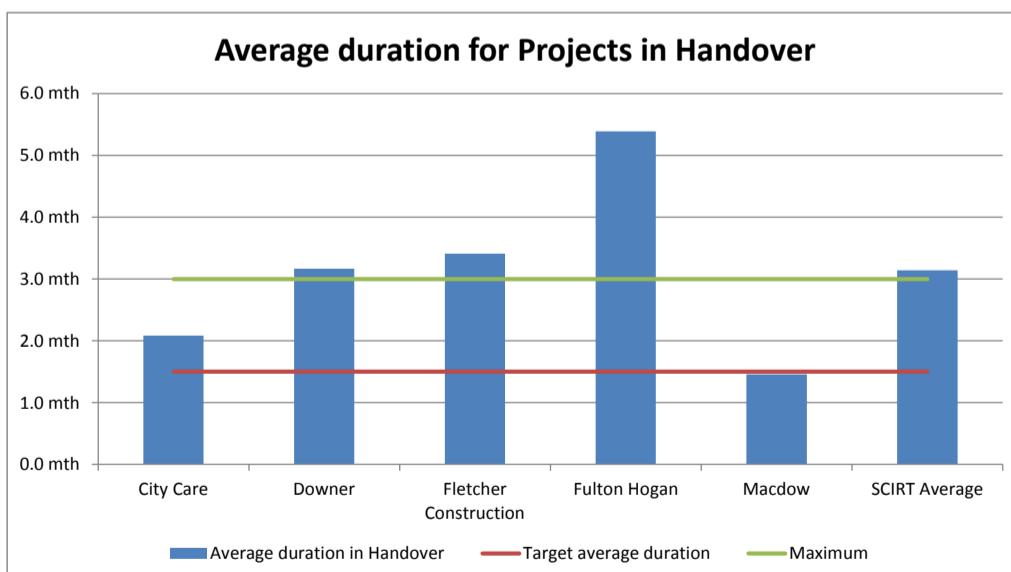
SCIRT have appointed replacements for the vacancies in their Health and Safety and Communications positions. The Infrastructure team have also recently made several appointments in the Transport and Land Drainage teams to enable delivery of their respective programmes.



Construction (\$m)	Completed at 16-Mar-15	Weekly Movement	Completed at 09-Mar-15
Passed Handover	550.4		550.4
1st SAT file submitted	520.1		520.1
WT notified costs are final	482.3	3.2	479.1
WTPi Cost validation report	451.2	2.1	449.1
GIS Completed	432.6	1.9	430.7
As-Builts Completed	427.4		427.4
Practical Completion	385.2	0.2	385.1
CCC Capitalised	358.7	16.2	342.4
Project Completion	13.7	1.1	12.5

Key Projects in Handover	Project	DT	\$	GIS	AB	WT	NCRs Open	WSC Open	Expected PC	Comment
St Martins Package 02 (WW,WS,SW,RD)	10407	City Care	\$13m				1		20-Mar-15	1 open NCRs; NAASRA tests to come; asbuilt drafting queries with DT;
Woolston South 1	10498	Downer	\$10m			27-Feb			30-Apr-15	PS commissioning docs to come; SAT to come; more markups to come; GIS and drafting not yet able to proceed.
Avonside Linwood Stage 1 (WW,SW,WS,RD)	10995	MacDow	\$10m				5	1	27-May-15	Open RFIs, NCRs, WSCs; LS final O&M manual to come; SATs under prevalidation & some yet to come; GIS and drafting not yet able to proceed.
Owles Tce (WW)	10705	Fulton Hogan	\$9m			14-May			31-Mar-15	PS commissioning docs to come; SATs under prevalidation; GIS and drafting not yet able to proceed.
NE13 - Parklands East Wastewater Catchment Repairs (Project #1 Area) (WW)	10977	Fletcher Construction	\$4m	06-Mar	24-Jul	12-Dec		1	20-Mar-15	Open WSCs, revised SAT to come due to GIS queries.
Total			\$45m							

Project Stage	IST GIS	IST As-Builts	DT Finance	WTPi report	RFIs Open	NCRs Open	WSCs Open
Projects in Handover, Practical Completion or Project Compeltion	\$550m	\$550m	\$550m	\$550m	\$550m	\$550m	\$550m
Value of completed projects	\$433m	\$427m	\$482m	\$451m	\$504m	\$490m	\$488m
Work in Progress	\$118m	\$123m	\$68m	\$99m	\$47m	\$60m	\$62m



INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE - 2. 4. 2015

10. WASTE AND ENVIRONMENTAL MANAGEMENT TEAM (WEMT) QUARTERLY REPORT

		Contact	Contact Details
Executive Leadership Team Member responsible:	Director of Corporate Services, Corporate Services Group	N	
Officer responsible:	Unit Manager, Inspections & Enforcement	Y	DDI 941 6306
Author:	James Tricker, Senior Compliance Officer (WEMT)	N	

1. PURPOSE AND ORIGIN OF REPORT

- 1.1 The purpose of this report is to provide the Infrastructure, Transport and Environment Committee with a quarterly update on earthquake waste and environmental management – including an update on the joint agency regulatory approach to asbestos management across the city. The Waste and Environmental Management Team (WEMT) quarterly report, covering the period October to December 2014, is also provided. This includes statistical information and key environmental waste issues and locations being managed by the team.
- 1.2 This report is in two parts:
- Part I - Waste and Environmental Management (WEMT) Team quarterly report (October to December 2014)
 - Part II – Joint Agency approach to Asbestos Management across the City.
- 1.3 This report is for information only and therefore assessment against the significance and engagement policy is not required.

PART I WASTE AND ENVIRONMENTAL MANAGEMENT (WEMT) TEAM QUARTERLY REPORT (OCTOBER TO DECEMBER 2014)

2. EXECUTIVE SUMMARY

- 2.1 The attached report (**Attachment 1**) summarises the work undertaken by the Waste and Environmental Management Team (WEMT) during the second fiscal quarter of 2014/15 (October to December inclusive).
- 2.2 Key highlights from the report include the following:
- During this reporting period the first contaminated site remediation works undertaken by Southern Response started, utilising both the Christchurch City Council (CCC) and Environment Canterbury (ECan) resource consents.
 - The agency groups involved with WEMT have been furthering discussions and work in reducing or removing associated costs for contaminated soil disposal to encourage appropriate disposal. A contaminated soil management and disposal option website is being developed to assist with disseminating this information.
 - At the end of July 2014, the Christchurch flatlands portion of the residential Red Zone Household Hazardous Waste Removal project came to an end. Funding remains open for contractors to remove hazmat from the Residential Red Zone (RRZ) Porthills area until March 2015.
 - During August / September 2014 GHD Ltd. carried out a review of the functions and performance of WEMT. A number of audit recommendations were made.
 - The increase in compliance monitoring visits continued in this reporting period with approximately 390 monitoring visits to individual sites involved with earthquake-type waste over this period. Some 2,657 compliance monitoring visits have been completed by the WEMT team to date.

10 Cont'd

- The team continues to manage a small number of non-compliance issues at 23 sites. Of these 17 sites remained non-compliant from the previous reporting period, with six new issues identified during this reporting period. The level of non-compliance remains low, equating to a non-compliance rate of around 1.5 percent across all monitoring visits.
- Most complaints in this quarter related to asbestos disposal and practice (six in total for this quarter with 37 complaints reported to the agencies over the past two years).
- The WEMT continue to work closely with Worksafe NZ and the Canterbury Earthquake Recovery Authority (CERA) to ensure that all Central Business District (CBD) land preparation of commercial sites, including basement removals, is undertaken safely.
- During this quarter the new website www.asbestosaware.co.nz went live and was being actively used by industry and individuals to help with identification, testing, managing and disposal of asbestos. Additional information awareness included:
 - 10,000 targeted households received an asbestos mail-drop prior to Christmas 2014
 - pamphlets were also placed in home DIY stores
 - Worksafe created a new video that was added to the asbestos aware site.
- The WEMT team are currently involved in two investigations regarding contaminated waste disposal. One site is in Selwyn, and the other investigation involves contaminated waste being moved from Hurunui to Christchurch City.

3. BACKGROUND

- 3.1 The Inspections and Enforcement Unit have a Level of Service commitment to inspect all known earthquake waste demolition storage sites and cleanfill sites bi-monthly, and report periodically to the Infrastructure, Transport and Environment Committee. This activity is undertaken by the joint agency Waste and Environmental Management team (WEMT) and the Council's Compliance/Enforcement team.
- 3.1.1 The WEMT team was set up in 2012 to establish an interagency co-ordinated monitoring and compliance approach to earthquake waste – in support of earthquake recovery through protecting the natural environment in both the short and long term.
- 3.1.2 This joint agency collaboration involves Christchurch City Council (CCC), ECan, Canterbury Earthquake Recovery Authority (CERA), Selwyn District Council, Waimakariri District Council as signatories to a Memorandum of Understanding. Community and Public Health (CPH), i.e. the Medical Officer of Health, Ngāi Tahu and the Ministry for the Environment (MfE) representatives also play an important role in assisting the signatories to achieve desired objectives.
- 3.1.3 Overseeing the WEMT team is the Combined Health and Environmental Risks (CHER) group involving Senior Managers from the respective organisations who holistically identify and monitor operational waste/health risks and trends and set the operational direction for key earthquake waste issues. WorkSafe New Zealand is a recent addition to this forum. Monthly meetings are supported by additional meetings as and when priority issues arise. This group also follows a joint media protocol approach to ensure the key asbestos messages are being communicated to our communities.

10 Cont'd

3.1.3.1 All agencies are currently signing off on a Memorandum of Understanding and Terms of Reference – which will be provided as part of our next quarterly report.

3.1.4 The objectives of this joint agency approach are to prevent negative environmental impacts that would restrict future land use, by facilitating efficient, appropriate and strategic recovery and management of earthquake waste. Earthquake waste refers not only to demolition waste, but includes waste from construction and infrastructure repair, contaminated waste and hazardous substances issues that arise from earthquake recovery related activities.

4. FINANCIAL IMPLICATIONS

4.1 The WEMT team is funded for three years from 1 July 2012 until 30 June 2015 by the signatories to the Memorandum of Understanding. Christchurch City Council's contribution is \$150,000 per annum for three years (2012/13, 2013/14 and 2014/15) in addition to meeting operational expenses associated with the project e.g. legal costs.

4.1.1 The independent audit of the team's performance against the Memorandum of Understanding was conducted by GHD Ltd in August / September 2014. The audit recommended the creation of a medium term business plan, including a review of the project charter. The WEMT audit recommended the project should be extended for a minimum of three more years, reflecting the projections of waste materials and issues that still need to be managed..

4.1.2 Continued operational funding of the WEMT team post 2014/15 has yet to be ratified by Council. In the proposed budgets for 2015/16 and 2016/17 through the long term plan process; Christchurch City Council staff have recommended funding a further 2 years of the project, equating to a \$100k per annum commitment within existing budgets. In addition, the other funding partners have committed the following:

- ECan have proposed to commit funding for a further 3 years, and
- CERA have committed to a further 12 months funding.

5. STAFF RECOMMENDATION

It is recommended that the Infrastructure, Transport and Environment Committee receive this Waste and Environmental Team (WEMT) quarterly report for October to December 2014.

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PART II JOINT AGENCY APPROACH TO ASBESTOS MANAGEMENT ACROSS THE CITY

6. EXECUTIVE SUMMARY

- 6.1 There continues to be a joint agency regulatory approach to asbestos management across Greater Christchurch. A range of initiatives are underway or completed to influence asbestos management at both a national and local level.
- 6.2 This quarter sees the following actions being undertaken:
- Delivery of an asbestos awareness campaign and launch on 17 October 2014 which included the dedicated asbestos website - www.asbestosaware.co.nz. This site has been actively used by industry and individuals to help with identification, testing, managing, disposal and the risks associated with asbestos. In addition the following educational activities were undertaken throughout Christchurch:
 - 10,000 targeted households received an asbestos mail-drop prior to Christmas 2014
 - pamphlets were also placed in home DIY stores
 - WorkSafe lead a homeowner, DIY and small contractor evening in December 2014 with information on the, asbestos identification, when to engage a contractor and how to dispose of asbestos products safely, and health risks in these types of environments.
 - A joint agency communications group in place with collective and consistent messaging across all agency collateral relating to asbestos management.
 - Furthering the development of a national strategic approach to asbestos programme of work across relevant agencies via Worksafe and MBIE leadership.
 - Continuing to develop initiatives supporting cheaper asbestos disposal options in Canterbury as well as seeking waste industry support /leadership in specialised asbestos disposal options.
 - A review of the joint agency Asbestos Regulatory Risk Register occurred in December 2014 – reviewing the inherent, residual and target risk ratings associated with asbestos management following the implementation of a number of initiatives over the preceding 12 months. All agencies agreeing that industry and regulatory risks had been reduced through targeted educational intervention across building industry and residential sectors.
 - MBIE are continuing to further the new Asbestos Regulations following submissions on the new Health and Safety at Work Reform Bill. The select committee report is due 30 March 2015 – furthering this bill towards its second reading.
 - WorkSafe have provided interim advice to the building sector on using Western Australian Guidelines for managing asbestos contamination in soil. Councils are developing generic Site Management Plans based on best practice contaminated land management for commercial and public use through processes like land repair, rebuilding and development situations.
 - Ongoing utilisation of joint compliance action involving joint agency investigations into asbestos noncompliant matters – including identifying agencies tools to quickly and effectively manage asbestos risk situations
- 6.3 On 29 July 2014, at the request of the Environmental Committee (which under the Committee restructure is now the Infrastructure, Transport and Environment Committee), staff wrote to the Minister of Business Innovation and Enterprise expressing concerns at the continued importation of asbestos containing materials (ACM's) into New Zealand.

10 Cont'd

- 6.4 This Committee also requested an update on the assessment criteria, removal and disposal of asbestos contaminated soil (including the adoption [sic] of the Western Australian guidelines). Please find a 1 page summary for your understanding and reference (**Attachment 2**)

7. BACKGROUND

- 7.1 In Canterbury there are a number of regulatory agencies involved with asbestos management including WorkSafe New Zealand, CDHB, CERA, Christchurch, Waimakariri and Selwyn Councils, ECan, and the Accident Compensation Corporation.

7.1.1 The scale and scope of demolition, repairs and rebuild are unprecedented in New Zealand, which brings significant challenges for organisations in regulating, auditing and managing public health and safety issues, including those related to risks associated with asbestos identification, removal and safe disposal.

7.1.2 Collectively these agencies are assessing asbestos risk and developing/implementing solutions to facilitate better management of asbestos identification, removal and safe disposal

- 7.3 Key legislation controlling asbestos work includes the Health and Safety in Employment Act 1992, Health and Safety in Employment (Asbestos) Regulations 1998, Hazardous Substances and New Organisms Act 1996, Building Act 2004, and the Resource Management Act 2004.

- 7.4 By far, the majority of asbestos work involves an occupational setting where there is an employment or contractual relationship present. Asbestos management is regulated in these environments under the Health and Safety in Employment Act 1992 supported by the Health and Safety in Employment (Asbestos) Regulations 1998.

7.4.1 WorkSafe New Zealand is the country's health and safety regulator. For asbestos this means ensuring workers, employers, contractors and companies involved in the rebuild comply with the Health and Safety in Employment Act 1992 and the Asbestos Regulations, as well as ensuring they understand their responsibilities to their employees and members of the public and what to do when asbestos is present. WorkSafe New Zealand also manages the Certificate of Competency regime which is something all contractors carrying out restricted work with asbestos must have.

- 7.6 Christchurch City Council's regulatory role involving asbestos includes building consent processes (compliance with the Building Code provisions where asbestos has been identified), environmental health aspects and Resource Management Act compliance around safe and appropriate disposal.

7.6.1 A key focus is the management of asbestos in residential settings where the asbestos work is being undertaken by the homeowner in the absence of any contractor/employment relationship. Staff provide education and advice to homeowners around asbestos management in their homes in line with the WorkSafe NZ guidelines.

7.6.2 Staff are also interested in identifying instances of illegal or unsafe disposal of asbestos and taking compliance/enforcement action when illegal waste disposal occurs. In the past 12 months, there have been 36 investigations relating to asbestos in public places and residential properties. Three additional asbestos matters relating to dumping/spillage of apparent asbestos waste have been initiated by staff and then handed to the WEMT team or WorkSafe NZ for follow up.

10 Cont'd

7.7 The Council plays other crucial roles outside the regulatory spectrum in asbestos management including provision of the Metro Eco Drops for safe disposal, Council as a building/land owner where asbestos is present, and Council as a representative/advocate for the community on asbestos related matters.

8. STAFF RECOMMENDATION

It is recommended that the Infrastructure, Transport and Environment Committee receive this quarterly update relating to regulatory asbestos management matters for October to December 2014.



Quarterly Report

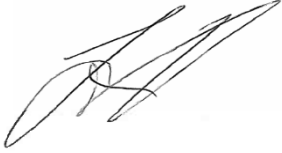




- October 1 – December 31, 2014

QUARTERLY REPORT
(October 1 – December 31, 2014)

**Waste and Environmental Management
 Team**

VERSION: 3

REVISION DATE: 16/02/15

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Contents

Section 1. Executive Summary	1
Section 2. Project Work	2
2.1 Land Repair	2
2.2 Residential Red Zone Household Hazardous Waste Removal	3
2.3 Global Consents	3
2.4 WEMT Audit.....	4
Section 3. Operational Matters.....	5
3.1 Monitoring events.....	5
3.2 Non-complying Activities	6
3.3 Complaint response	7
3.4 Sites stockpiling, processing etc.....	9
Section 4. Potential Issues.....	10
4.1 Contaminated Soil Disposal	10
4.2 Asbestos Containing Materials (ACM)	10
Section 5. Hot topics.....	11
5.1 Hororata Unconsented Demolition Waste Burial	11
5.2 Waipara Investigation.....	12
Appendix One.....	14
1. Known Processing & Storage Sites.	14
Glossary	18

Section 1. Executive Summary

This report summarises the work undertaken by the Waste and Environmental Management Team (WEMT) during the second fiscal quarter of 2014/15 (October to December 2014 inclusive).

During this quarter, the first contaminated site remediation works undertaken by Southern Response started utilising both the CCC and ECan resource consents. The consents require the level of contamination on site to be assessed and graded high, medium or low risk in relation to the HAIL activities. The level of risk assessed for the site then determines the level of control required for the site. WEMT are working closely with Southern Response's agent, to establish a system of audited self-management to efficiently manage the large volume of sites anticipated in this area.

The spike in monitoring events in October 2014 was caused by an influx of new sites as part of the CERA Port Hills program, whereas the dip in November and December was a result of time taken to set up the processes of audited self-management for the Southern Response land repair works in the green zone.

During this quarter, the new website www.asbestosaware.co.nz went live and was being actively used by the industry and individuals to help with identification, testing, managing and disposal of asbestos. A targeted mail drop was undertaken of 10,000 households prior to Christmas 2014, informing residents of asbestos risks associated with house renovations and repairs.

WEMT and CERA are continuing to work jointly with weekly site visits undertaken on the Port Hills. The Port Hills consent is now being actively monitored with particular emphasis on retaining walls, slope stability and site run off. A comprehensive stabilisation program on the demolition sites is being undertaken by CERA Port Hills team. The CERA Flatlands consent has been activated.

Section 2. Project Work

2.1 Land Repair

The land remediation solution seen on most sites continues to be the use of vibrated stone columns and horizontal soil mixing as discussed in previous reports.

During this quarter, the first contaminated site remediation works undertaken by Southern Response started. Both CCC and ECan have granted Southern Response global consents to carry out land remediation of contaminated sites. The consents require the level of contamination on site to be assessed and graded high, medium, or low risk, in relation to the HAIL activities. The level of risk assessed for the site then determines the level of control required for the site. The CCC consent also included a condition for contingency measures in the event of any unexpected gross contamination being identified on site that was not reported on the LLUR.

One of the first sites remediated (in Beckenham) using the Southern Response consent required these contingency measures to be exercised. The contractor on site uncovered a historic, previously unidentified rubbish pit on site, when carrying out the initial excavations. Work stopped immediately and CCC were notified. The site was re-classified and the commensurate additional control measures were put in place for the site and the disposal of the spoil.



Discovery of a previously unidentified historical rubbish pit, on a residential land repair site, Beckenham.

2.2 Residential Red Zone Household Hazardous Waste Removal

At the end of July 2014, the Christchurch flatlands portion of the project came to an end. In previous quarters the Waimakariri RZ and WDC/CCC transfer station funding had also come to an end. For further information on these portions of the project please refer to previous quarterly reports. The project now only covers the RRZ in the Port Hills.

Funding will remain open for contractors to remove hazmat from the RRZ Porthills area, at this stage until March 2015. A further extension of this funding is currently being requested to run the project until March 2016. There are approximately 650 RRZ Porthills demolitions to be carried out.

2.3 Global Consents

There were 10 global consents active during this reporting period which the WEMT monitored.

2.3.1 Canterbury Earthquake Recovery Authority Global Consents

Canterbury Earthquake Recovery Authority held a global consent, granted by CCC, covering the flat lands RRZ. This consent was for the demolition of residential properties in this area, and the clearance of vegetation and re-seeding, as necessary. ECan also granted consent to CERA for the discharge of stormwater associated with these activities.

Canterbury Earthquake Recovery Authority also held a global consent, granted by CCC, covering the Port Hills RRZ. This consent was for the demolition of structures in this area, including retaining walls. The consent also covered the repair of retaining walls where site stability for adjacent green zone properties was necessary. In addition the consent authorised the clearance of vegetation, including riparian vegetation, and associated earthworks, re-grading and stabilisation of exposed surfaces. ECan also granted consent to CERA for the discharge of stormwater associated with these activities.

Canterbury Earthquake Recovery Authority also held a global consent, granted by WDC, for the red zone of WDC, including Pines Beach and Kairaki. This consent was for the demolition of residential properties in this area, and the clearance of vegetation and re-seeding, as necessary. ECan also granted consent to CERA for the discharge of stormwater associated with these activities.

2.3.2 Southern Response Global Consents

Southern Response held a global consent, granted by CCC, covering Christchurch City, including the Port Hills and Banks Peninsula. This consent authorised soil disturbance on HAIL sites. Specifically the authorisation was for the disturbance of soil associated with the repair or replacement of earthquake damaged structures, building demolition and ground improvement on HAIL sites. ECan also granted consent to Southern Response for the discharge of stormwater associated with these activities.

2.3.3 Canterbury Stone Piling Global Consents

Canterbury Stone Piling held two global consents, granted by CCC, covering the flat lands Residential Green Zone. These consent authorised the repair and remediation of earthquake damaged land on residential and non-residential sites. ECan also granted consent to Canterbury Stone Piling for the discharge of stormwater associated with the non-residential sites.

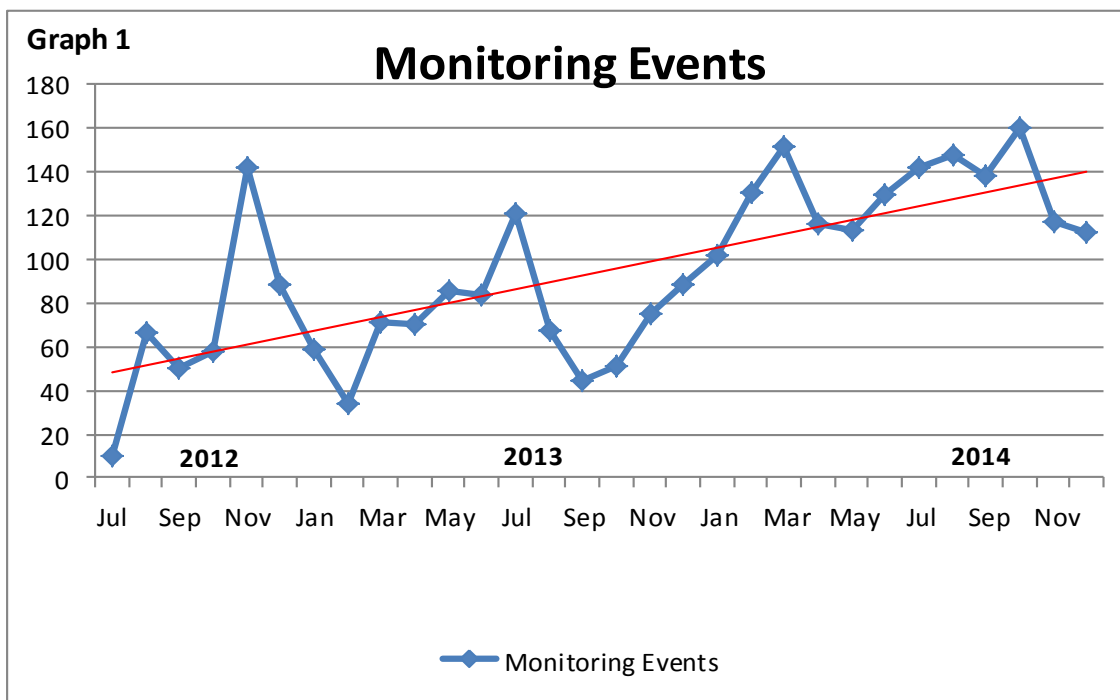
2.4 WEMT Audit

During August/September 2014, GHD Ltd. carried out a review of the functions and performance of WEMT. The review found WEMT had achieved a significant amount of work in a relatively short period of time, that the team was effective in working across councils, and had contributed to an increase in communications between the relevant councils. GHD Ltd. noted that WEMT represented the efficiencies that could be achieved with a joint agency approach. The creation of a medium term business plan was recommended, which should also incorporate a review of the existing project charter, as the roles of WEMT have changed as the recovery/rebuild process itself has evolved. It was also recommended that the WEMT contracts should be extended for a minimum of three more years, reflecting the projections of waste materials and issues that need to be managed. This process was recommended to take the form of a two year continuation of the current WEMT functions, with an additional year of transitioning, as parent councils take back the management of residual earthquake waste, land repair, land remediation and associated issues.

Section 3. Operational Matters

3.1 Monitoring events

Graph 1 shows the number of monitoring events completed by the WEMT per month to date.

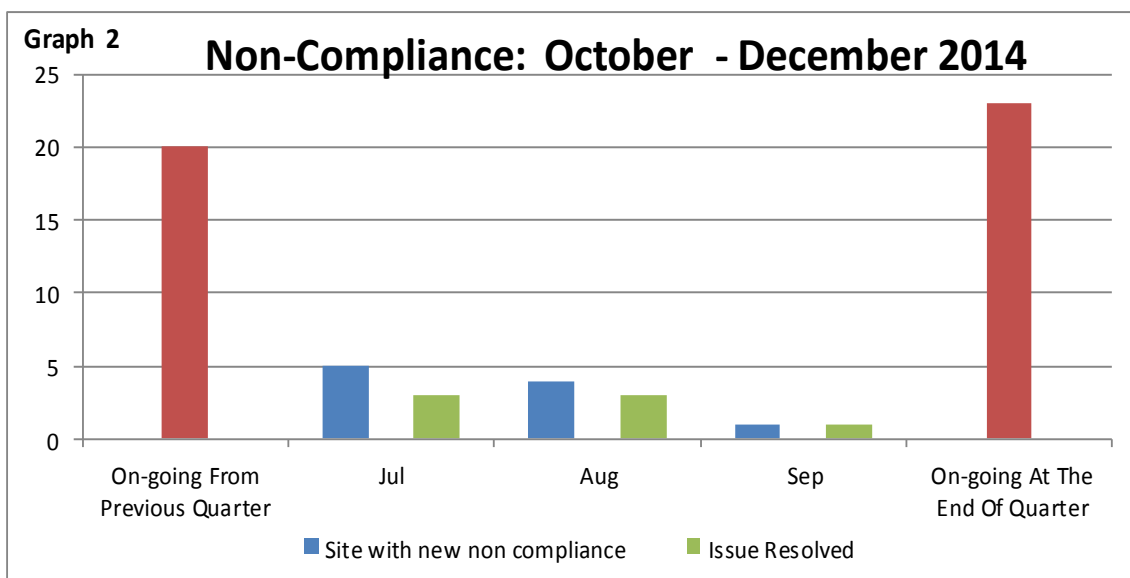


The trend in monitoring events is a reflection of the WEMT continuing to carry out regular site inspections, whilst becoming increasingly involved in finding longer term, broader solutions to the types of issues identified during site visits. The spike in monitoring events in October 2014 was caused by an influx of new sites as part of the CERA Port Hills program, whereas the dip in November and December was a result of time taken to set up the processes of audited self management for the Southern Response land repair works in the green zone. Both processes are in early stages of development, and the WEMT are working closely with both organisations and their contractors.

3.2 Non-complying Activities

Ideally proactive monitoring should result in minimal non-compliances, with active education dealing with an issue before it becomes a problem. However some sites have been found to be non-compliant. The non-compliance levels are shown in Graph 2 below.

During the reporting period, proactive monitoring resulted in 7 sites with non-compliance, achieving full compliance, thus reducing the potential for adverse environmental effect.



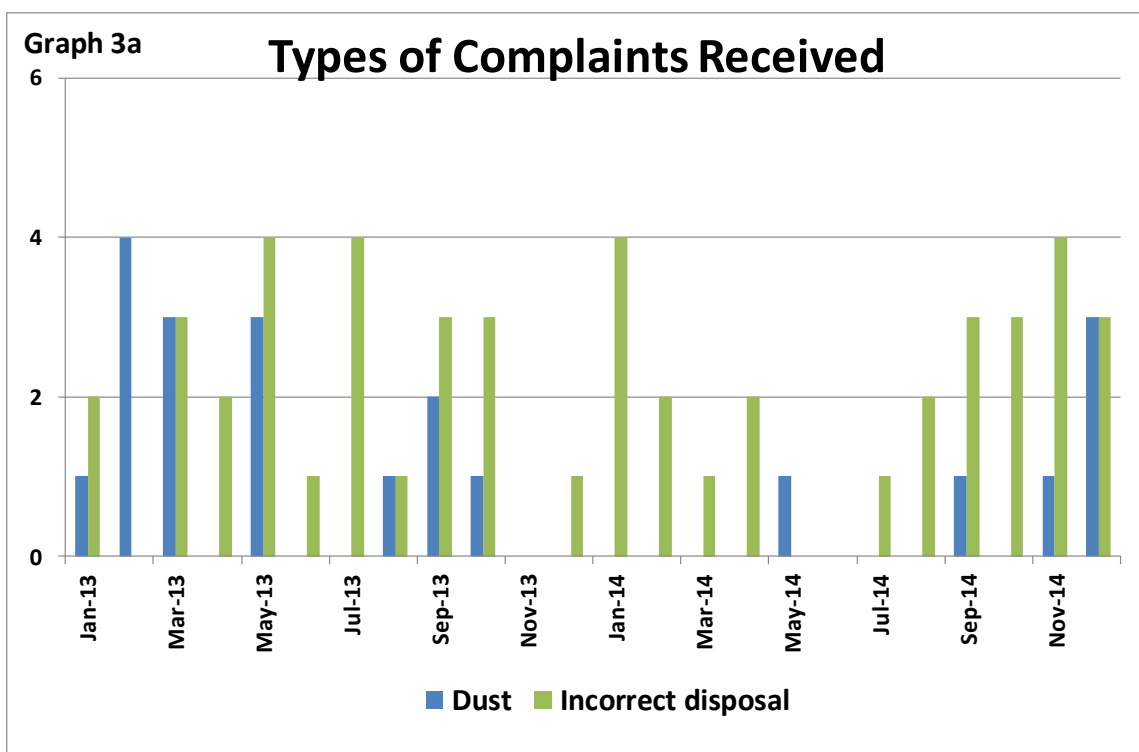
At the beginning of this reporting period, there were 20 sites with pre-existing non-compliance and the WEMT continued to work with the relevant parties to remedy their non-compliant status. Of these 20 sites, three achieved full compliance in this quarter.

During the reporting period an additional 10 sites were identified as being non-complying, of which four have achieved compliance during the quarter. At the end of this reporting period a total of 23 sites remained non-compliant – 17 from the previous reporting period and six new issues identified during this reporting period. The WEMT continue to manage these matters as a matter of priority.

3.3 Complaint response

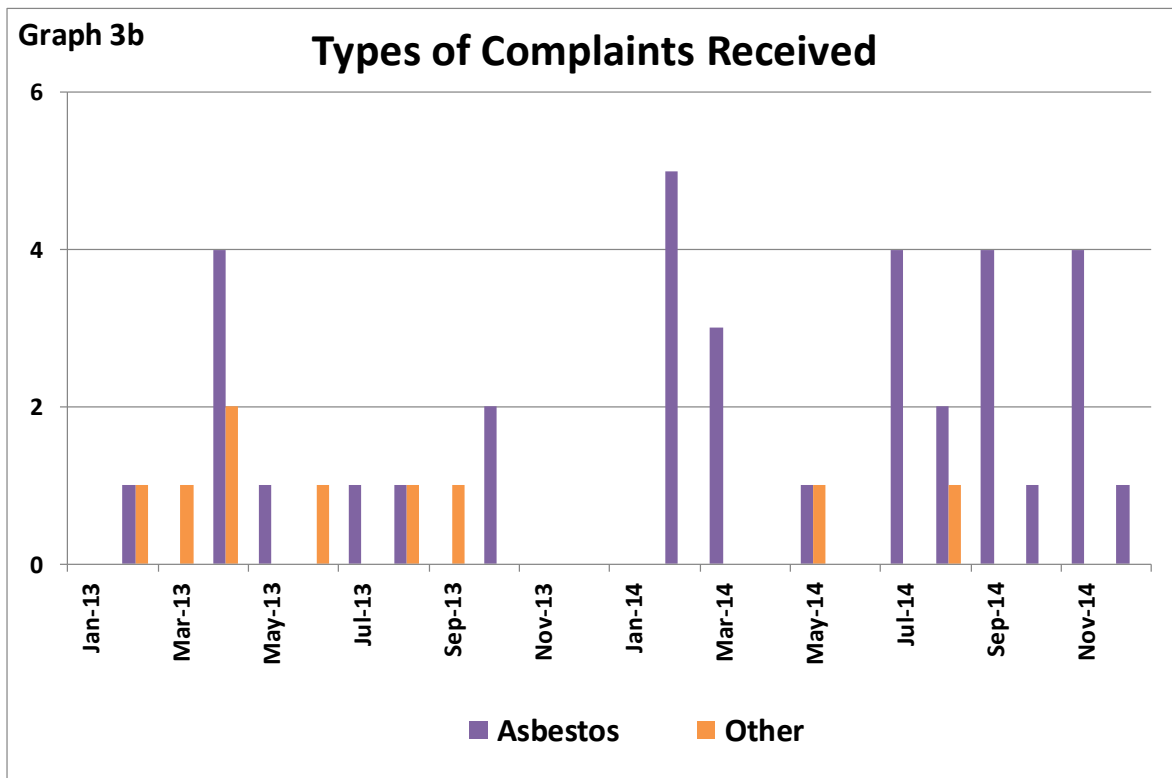
Complaints are received by WEMT through two main avenues; the CCC customer service requests and ECan’s 24-hour Pollution Hotline. Some complaints come directly to WEMT and are entered into the relevant organisation’s database. Complaint response is effectively a process of reactive monitoring. Graph 3a shows the complaint volume associated with dust and incorrect disposal complaints, whilst Graph 3b shows the complaints received about asbestos and other waste issues.

Graph 3a shows that 10 complaints were received about incorrect disposal of materials, and four complaints received about dust issues. Incorrect disposal complaints volume tends to have been reasonably stable for the past year – with around 5 to 7 complaints per quarter. The larger number of complaints regarding incorrect disposal this quarter is partly the result of multiple complaints regarding an issue that is currently under investigation.



Graph 3b below, shows that in total there have been 37 complaints relating to asbestos reported to the agencies over the past 2 years, with six complaints forthcoming in this quarter. This may be a reflection of the increased public interest in asbestos contamination, and the increase in the level of reporting this issue in the media. The WEMT received many calls and enquiries from contractors and home owners regarding disposal and handling requirements – providing an opportunity to better educate people involved in asbestos management on a small scale. The

complaints received this quarter relate to asbestos management and possible land contamination, (i.e. discharge to land) and/or DIY demolitions in non-occupational settings, which occurs and require Regional and City Council oversight. Most asbestos complaints are directed to WorkSafe NZ due to typically occurring in workplace settings.



In 18 of the 20 cases, the WEMT response occurred on the day the complaint was received. The other cases were either dealt with initially by the Environment Canterbury compliance team and passed to the WEMT later, or dealt with later when it was possible to arrange joint inspections with other agencies. Depending on the issue, once the complaint is initially investigated it is either:

- Managed by a WEMT officer as required.
- Specialist investigators from Environment Canterbury and CCC are called in if a large scale investigation will be required.
- Specialist scientists from Environment Canterbury and CCC are called upon for expert advice as needed.
- Referred to WorkSafe NZ – particularly as they relate to poor workplace ACM practices.

3.4 Sites stockpiling, processing etc.

During the reporting period there were a total of 35 (see Appendix 1) known sites which were carrying out; stockpiling, processing, sorting, backfilling, clean fill and/or landfill activities relating to EQ waste. Of the 35 sites, nine were visited in this reporting period on at least one occasion.

The frequency of monitoring events for these sites depends on two key points;

- The activity occurring and the likelihood of an adverse environmental effect occurring, and
- The size of the potential environmental effect.
- The WEMT Team undertake an assessment of each site based on the above factors and prioritises resourcing to those sites considered to have the greatest potential effect should something go wrong.

Section 4. Potential Issues

4.1 Contaminated Soil Disposal

As a result of the work led by ECan in early 2014, there appears to be a greater public and business awareness of HAIL sites and the potential for encountering contaminated soils. Added to this increase in awareness, is the increase in the number of sites being worked on post-earthquakes, and subsequently an increase in the volume of HAIL soil being handled. The WEMT have been working closely with industry involved in earthworks, to try and ensure that when a contaminated site is encountered, it is managed correctly.

Key people from a number of regulatory agencies including CCC, Worksafe, CERA and ECan met to discuss further ways to help people should they encounter potentially contaminated soils on their properties. As a result of this meeting it was identified that a practical easy to use website (similar to Asbestos Aware) for contaminated soil management and disposal options would be beneficial. The development of such a website was approved during this quarter and is in the process of being developed. The website will have direct links to and from both the LLUR website and the builders pocket guide website along with contact details for relevant contractors, consultants etc.

4.2 Asbestos Containing Materials (ACM)

The WEMT are working closely with WorkSafe NZ and CERA to ensure that all CBD land preparation of commercial sites, including basement removals, are undertaken safely.

During this quarter, the new website www.asbestosaware.co.nz went live and was being actively used by the industry and individuals to help with identification, testing, managing and disposal of asbestos. A targeted mail drop was undertaken of 10,000 households prior to Christmas 2014, informing residents of asbestos risks associated with house renovations and repairs. These pamphlets were also placed in home DIY stores, such as Bunnings and Mitre 10. In addition a new video was created by Worksafe and added to the asbestos aware web site.

For additional background information on works done in the area of asbestos, please refer to previous quarterly reports.

Section 5. Hot topics

5.1 Hororata Unconsented Demolition Waste Burial

WEMT are currently investigating the burying of demolition waste on a Hororata dairy farm. Initial site inspection of the farm has established the amount of waste is up to 8000 cubic meters. Enquiries as to how the material came to be buried on the farm are ongoing. The property has changed hands since the material was buried, and WEMT are in discussions with the new property owners, who were unaware of the waste on the property, to discuss possible site mitigation options.



Demolition Waste on Hororata Dairy Farm



5.2 Waipara Investigation

The Waipara Hotel, which contained significant quantities of asbestos, was partially raised in a fire in February 2014. The owners engaged a contractor with no certificate of competency in handling asbestos. Following the demolition the waste material was crushed and burnt on site. The material, approximately 300 tonnes, was then transported into Christchurch and dumped on site off Deans Avenue. It was again then moved back to a different site in Waipara. At this point WEMT were made aware of the situation and enforcement action is now in progress requiring remediation action plans to ensure the sites are remediated.



Demolition Waste Waipara

Appendix One

1. Known Processing & Storage Sites.

Outlining;

- What the sites are known as
- Number of monitoring events during reporting period
- If any non-compliances occurred during reporting period

Site Address	Monitoring Events	Compliant	Site Known As	Non-Compliance Issue/Action	General Site Notes
SITES VISITED DURING REPORTING PERIOD					
Adams Street 79, Selwyn	6	N		Breach of SDC rule regarding material brought from a different site. issues resolved during the quarter	
Beach Road 280 Kaiapoi	6	Y	Frews Beach Rd; Ruby Views	Fully Complying	Concrete crushing
Ferry Road 1099	4	N	Ferrymead appartments site	Dust complaints relating to the site	
Hereford Street 164, CBD	5	N	Old National Bank site	ACM issues resolved during the quarter	
High Street 240-238, CBD	4	N	Dallison	ACM issues on site are on going. WEMT working closely with WorkSafe	Building demo done 2-3 years ago, now flat messy site, basement temp fill with demo waste.

Site Address	Monitoring Events	Compliant	Site Known As	Non-Compliance Issue/Action	General Site Notes
Kennedys Bush Road 318	6	Y			Stockpile in prep for subdivision application
Lichfield Street 80 -90	7	Y	Transport Precinct		
State Highway 1, 1744, Saltwater Creek	1	N	Saltwater Creek		
Weedon Ross road 300 Rolleston	2	Y			
SITES NOT VISITED DURING REPORTING PERIOD					
Bamford St 108 Woolston			Uretek Ground Engineering Ltd		
Bramleys Road 113, Flaxton					
Burwood Road 505, Burwood			Burwood Resource Recovery Park		John Makuru is currently using this site as a temporary storage facility until consents are obtained for processing of the polystyrene.
Colombo street 481 Sydenham			Cass street recycling		
Conservators road 156, Mcleans Island			Mcleans Island behind Gun club		

Site Address	Monitoring Events	Compliant	Site Known As	Non-Compliance Issue/Action	General Site Notes
Doubledays Road 165, Kaiapoi			Clemence drill new site		
Foundary Drive			Central Woodhogggers ltd		are still assessing an application from Clemence Drilling (RC125439). Apparently we are waiting for an impact assessment from drainage on surrounding land from post fill levels. Also requested, is further confirmation from the Regional Council of either compliance or consent approval.
Gammocks Road, Greenpark, Selwyn			Canterbury Green Waste		
Glenmark Road 22 Waipara			Ken Dow property		CRC081117 discharge to air, CRC083502 land use, RC085037 SDC, land use consent
Hayton Road (79) Sockburn			Frews demolition		
Johns Road (568) frews			Frews Contracting Ltd		
Johns Road 544 Greywacke rd			Protranz Greywacke road		
McLeans Island Rd, 397 Harewood CERES			CERES sub lease of Isaac Quarry		Protranz use site as restricted ACM transfer site. Confirmed with CCC as zone compliance and Worksafe NZ
McLeans Island Road 552			Isaacs Main Site		

Site Address	Monitoring Events	Compliant	Site Known As	Non-Compliance Issue/Action	General Site Notes
Metro Place, Bromley			Eco drop Bromley		
Old West Coast Road 233			Winstones Aggregates Quarry		
Owaka Road 59			ECO Ecocycling Park		
Parkhouse Rd, 21 Wigram			ECO Drop Parkhouse		
Port Hills Road 340			AKA old Hillsbrought Tavern site , Orchard Restaurant site , 340, 340r, 344, Port Hills Road, 12 Curries, 13 Desi place		Owner Gibraltar Shelf Company 56 Ltd, Terry Brichfield 635 Buchanan's road. Rd6 Chch
Pound Road (333) Templeton			Fulton Hogan Quarry AKA 210 Haskett Rd		CRC961604.1, crc11476
Pound Road 335			Ablett's Quarry		
Spencerville Road 25, Spencerville			Silver Skips		
Spencerville road 25 CW			Container Waste		
Springs road 288 Halswell			Crown land for motorway		Smiths cranes have access to this site
Tovey Street 10 New Brighton			Weir Constriction		
Woodend Beach Road 196 Woodend			Flanaghan		

Glossary

ACM	Asbestos Containing Materials
CCC	Christchurch City Council
CCDU	Christchurch Central Development Unit
CERA	Canterbury Earthquake Recovery Authority
CHER	Combined Health, Environmental Risk Group
CoC	Certificate of Compliance
Ecan	Environment Canterbury
EQC	Earthquake Commission
HAZMAT	Hazardous Materials
LLUR	Listed Land Use Register
NES	National Environmental Standards
RRZ	Residential Red Zone
UST	Underground Storage Tank
WDC	Waimakariri District Council
WEMT	Waste & Environmental Management Team

Assessing, Remediating & Managing Asbestos-Contaminated Sites

Asbestos-contaminated material (ACM) in soil is one of many forms of site contamination that can occur if asbestos is not properly removed or disposed of during demolition or repair work.

Currently there is no officially recognised guidance for assessing, remediating or managing asbestos contaminated sites in New Zealand but WorkSafe is working on best practice guidelines and reform of the Health & Safety laws including asbestos in soil remediation guidelines and practices.

The WA Guidelines

In the interim, WorkSafe has recommended the use of the [Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia](#) (WA guidelines).

The guideline was produced by the Western Australian Department of Health (DOH). It helps employers and people in the control of the workplace take all practicable steps to manage safety when assessing, remediating and managing asbestos-contaminated sites.

The WA guideline lists four contamination criteria:

1. The clean-up goal is 0.001% asbestos in soil on a weight-for-weight (w/w) basis for free fibre-related materials.
2. Depending on site use, the DOH applies at least 10-fold higher criteria to ACM in sound condition, like commonly-found asbestos cement fragments, since their risk to human health is lower.
3. For remediation purposes, the top 10 cm of soil should be free of visible asbestos or ACM. This can simply mean putting a 10 cm layer of clean material over the site.
4. The asbestos air-quality limit for protecting the public around contaminated sites is 0.01 fibres per millilitre (f/ml) using the filter method.

For further information, the NZ Demolition & Asbestos Association has produced the NZ [Guidelines for the Management and Removal of Asbestos](#) (WorkSafe website)

The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES)

The [National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health](#) (NES) which came into effect on 1 January 2012 lists allowable concentrations for most contaminants but for asbestos there is no allowable concentration specified.

It provides:

- a nationally consistent set of planning controls and soil contaminant values;
- identification and assessment of land affected by contaminants in soil before development takes place;
- if necessary the land is remediated or the contaminants contained to make the land safe for human use.

All territorial authorities (district and city councils) are required to give effect to and enforce the requirements of the NES.

When the soil is contaminated with asbestos fibres, full compliance is required with both the [Asbestos Regulations](#) and the NES (Soil) but neither of these regulations specifies a 'safe' level of asbestos contamination in the soil.

The Western Australian Guidelines provide some help in regards to asbestos contaminated sites, however due to these guidelines being developed from a risk perspective not a hazard perspective, care needs to be taken as to how they are used in New Zealand – hence the current review by WorkSafe.

Issues Relating to Asbestos in Soil:

1. At a lot of sites where asbestos is contaminating the soil, no employment is actually occurring (eg. a domestic home) and in these situations the Asbestos Regs do not apply. The NES may apply depending on what activity/triggers apply onsite.
2. It can be very difficult to confirm if a soil matrix contaminated with asbestos fibres is now free of all asbestos as there is no safe contamination level under current law.

Extra info:

Legal Obligations when Working with Asbestos

The [Health and Safety in Employment Act 1992 and Health and Safety in Employment \(Asbestos\) Regulations 1998](#) require people working with asbestos to do certain things to make sure they, and other people around them are not harmed by asbestos, including:

- conducting tests to determine if asbestos is present
- doing work involving asbestos in accordance with the regulations
- remediating asbestos where it is present
- after completing work, conducting clearance testing to ensure no asbestos fibres are present.

NES Triggers

The NES classifies as permitted activities (meaning no resource consent required if stated requirements are met):

- removal or replacement of fuel storage systems and associated soil, and associated subsurface soil sampling;
- soil sampling;
- small-scale (no greater than 25 cubic metres per 500 square metres of affected land) and temporary (two months' duration) soil disturbance activities;
- subdividing land or changing land use where a preliminary investigation shows it is highly unlikely the proposed new use will pose a risk to human health.

Activities requiring a resource consent under the NES include:

- the development of land where the risk to human health from soil contamination does not exceed the applicable soil contaminant value (classified as a controlled activity, meaning resource consent must be granted);
- the development of land where the risk to human health from soil contamination exceeds the applicable soil contaminant value (classified as a restricted discretionary activity);
- the development of land where the activity does not meet the requirements to be a restricted discretionary, controlled or permitted activity (classified as a discretionary activity).

2. 4. 2015

**REPORT BY THE CHAIRPERSON OF THE
LAND DRAINAGE RECOVERY PROGRAMME WORKING GROUP**

PART B – REPORT FOR INFORMATION**11. UPDATE REGARDING WORK OF THE LAND DRAINAGE RECOVERY PROGRAMME WORKING GROUP****1. PURPOSE AND ORIGIN OF REPORT**

- 1.1 The purpose of this report is to update the Infrastructure Transport and Environment Committee of the work of the Land Drainage Recovery Programme Working Group (LDRPWG).
- 1.2 In the Council's Committee structure the LDRPWG sits under the Infrastructure Transport and Environment Committee and as such there is a requirement for it to report to the Committee on a regular basis.

2. BACKGROUND

- 2.1 At its meeting of 11 September 2014 the Council adopted a new governance and decision making structure that would come into operation on 1 October 2014. This included the formation of the Infrastructure Transport and Environment Committee and its subordinate bodies, one of which was the LDRPWG.

3. COMMENT

- 3.1 As a subordinate body of the Committee, the LDRPWG, met for the first time on 3 March 2015. At this meeting staff briefed Chairperson, Councillors Pauline Cotter (Chairperson), Tim Scandrett (member) and Phil Clearwater (in attendance), on the issues as detailed below:

Tay Street Drain Pump Station

Key points from discussion:

- That the construction of Tay Street Drain Pump Station was progressing well and would be operational in April (approximately six weeks late).
- With the anniversary of last year's flooding approaching contingency planning was underway. If necessary additional pumps can be brought in from City Care. With MetService forecasts typically staff have several day's warning of heavy rainfall.
- Newsletters have been sent out to residents in affected areas, including one specifically for those living in the Flockton area. To receive e-newsletters residents are required to opt-in.
- Fly drop also recently sent to those in Kensington Avenue area – this occurs regularly.
- Councillors are keen that other flood prone areas adopt the robust system that those living in Flockton have set-up to deal with flooding. Suggestion that this is brought up with staff working in Strengthening Communities.

Dudley Creek

Key points from discussion:

- The plan is:
 - a report for Council at its 26 March meeting (this will include an update and look at issues around consenting and the red zone)
 - for consultation to take place in May
 - a Joint Council/CERA governance meeting probably now in June
 - decision report in July
 - then consents, design and construction to take place with a target completion date of winter 2017.

Greater Christchurch Public Transport Working Group

11 Cont'd

- Staff explained that the red zone is tied up with the Canterbury Earthquake Recovery Authority (CERA) Act and that the CERA Chief Executive Officer has written to the Council detailing some requirements necessary to an agreement being reached. The fact that an alternative route is being considered is causing some delay, however the upstream work can still continue while this is being sorted out.

Land Drainage Recovery Programme Timing and Budget

Key points from discussion:

- Staff have been providing information for the draft Long Term Plan. At the moment this has identified for the next three years a total of \$107 million capex and \$43 million in investigations and early works, making a grand total of \$150 million.
- If staff encounter problems with any of the top priority schemes they have other high priority ones identified with the idea being to optimise the “biggest bang for buck”.
- This programme excludes the tidal barrier – staff are currently doing some pre-feasibility work to see if it is worth it and if it can be delivered effectively – if the tidal barrier went ahead it would have an impact on this programme inasmuch it would mean some other work would not be required.
- There is a lot of lateral spread damage along the Avon River.
- When considering the installation of stopbanks there are a lot of issues to consider e.g. who pays for the land.
- All costs will be included into deliverability plan.
- The stopbank process is about protecting property and there are still people living in the red zone.
- Flooding does not extend just to the red zone but beyond and staff are currently undertaking a lot of modelling including finding out which properties would get flooded to a level of above floor boards.

Heathcote Update

Key points from discussion:

- Current taskforce works include a programme being undertaken by City Care to replace damaged flapgates.
- City Care are on top of maintenance of undamaged flapgates e.g. removal of tree branches.
- City Care also have the contract to remove silt – Stanmore drain has been particularly troublesome due to liquefaction. As this is earthquake damage this will be 60 percent funded by CERA.
- There are still a lot of challenges: sedimentation, vegetation, flood control, access/recreation/amenity and a wide range of public opinion on related issues (some residents in favour of stopbanks while others do not want them – assistance from councillors key to helping deal with this).
- Due to the good summer weather there has been a particularly bad issue with weed growth and there is only one weed removal boat available.

Flood Preparedness

Key points from discussion:

- City Care is prepared to help e.g. portable pumps.
- The Council has subscribed to MetConnect meaning it has access to an improved weather forecasting – gets forecasts further in advance and detailed information on likely rainfall.
- The Council has scheduled maintenance using high level asset management tools and Stronger Christchurch Infrastructure Rebuild Team (SCIRT) has developed a database. City Care has been in all of the city's drains more frequently since the earthquake than before – they are performing well.
- To monitor the number of calls from the public the Council uses a Customer Service Request system.

Greater Christchurch Public Transport Working Group

11 Cont'd

- Work closely with Civil Defence and after the flooding last year staff went through a big “lessons learned” exercise.
- During the second big flood last year the Council decided not to deploy sandbags, which despite public perception are largely ineffective – this was due to a number of factors including health and safety issues.

Estuary Tidal Barrier Pre-Feasibility Study

Key points from discussion:

- The Council has commissioned a pre-feasibility study to find out if it might work and what benefits it could deliver. It has engaged specialist consultants – Dutch experts who have worked all round world, and it should be known fairly quickly if it is going to work.
- Internationally the cost of such barriers has ranged in price from \$200 million to \$2 billion.
- Initial steer from experts should be available within three weeks. This would be followed by a report in May and then a report to Council in June.
- Staff have asked the experts to be open in their thinking. There is concern about locking an engineering system on a sand spit - as well as the environmental and visual aspects to consider, there is the fact that sand spits move. It would not solve all the problems: some stopbanking would still be required and because of expected sea level rise, it might only be an interim solution. Although anything can be done, there are costs involved (initial construction and ongoing maintenance), and also public opinion and iwi to be taken into account. Staff advised that councillors should be careful in their consideration of this option.

South New Brighton Update

Kibblewhite Street/Blake Street/Bridge Street area

Key points from discussion:

- There has been land settlement.
- Some of Kibblewhite Street is now below a high tide level meaning there is a need to be able to pump water from the area to restore on-road level of service.
- There are three drainage standards: one relates to rainwater from buildings while the other two relate to construction of infrastructure and getting water from roads and from private property that drains on to roads.
- The pump needs buffering – this is achieved by the construction of a storage pond.
- Fulton Hogan has the contract for the project.
- Some local residents think the area should be red zoned – they feel uncomfortable living on land that is lower than it used to be. Staff believe that these residents will actually be in a better position than they were before the earthquakes because they will be protected against a 50 year event which were not previously.

Southshore area

Key points: Key points from discussion:

- Southshore area not much affected by settlement.
- The main issues for the area are damaged outfalls, blocked tide gates and soft surface materials have consolidated.
- SCIRT solution to problem:
 - larger outfall pipes (better capacity, raises pipe above beach level)
 - effective tide valves (non-block, non-jam)
 - replace concrete outfalls with timber covered PE pipes (flexible, durable)
 - timber outfall appearance similar to a jetty.

INFRASTRUCTURE TRANSPORT AND ENVIRONMENT COMMITTEE - 5. 2. 2015**Greater Christchurch Public Transport Working Group****11 Cont'd**

3.2 It was decided that the next meeting would be held in May and that throughout the winter months the Working Group would meet monthly.

4. CHAIRPERSON'S RECOMMENDATION

It is recommended that the Infrastructure, Transport and Environment Committee receive the information.