

**Infrastructure, Transport and Environment
Committee
AGENDA**

Notice of Meeting:

An ordinary meeting of the Infrastructure, Transport and Environment Committee will be held on:

Date: Monday 22 July 2019
Time: 9am
Venue: Council Chambers, Civic Offices,
53 Hereford Street, Christchurch

Membership

Chairperson	Councillor Pauline Cotter
Deputy Chairperson	Councillor Mike Davidson
Members	Councillor Vicki Buck
	Councillor Phil Clearwater
	Councillor Anne Galloway
	Councillor Aaron Keown
	Councillor Tim Scandrett
	Councillor Sara Templeton

17 July 2019

Principal Advisor

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Note: The reports contained within this agenda are for consideration and should not be construed as Council policy unless and until adopted. If you require further information relating to any reports, please contact the person named on the report.

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Strategic Framework

The Council's Vision – Christchurch is a city of opportunity for all.
Open to new ideas, new people and new ways of doing things – a city where anything is possible.

Whiria ngā whenu o ngā papa Honoa ki te maurua tāukiuki

Bind together the strands of each mat
And join together with the seams of respect
and reciprocity.

The partnership with Papatipu Rūnanga
reflects mutual understanding and respect,
and a goal of improving the economic,
cultural, environmental and social
wellbeing for all.

Overarching Principle

Partnership – Our
people are our taonga
– to be treasured and
encouraged. By working
together we can create
a city that uses their
skill and talent, where
we can all participate,
and be valued.

Supporting Principles

Accountability	Collaboration
Affordability	Prudent Financial Management
Agility	Stewardship
Equity	Wellbeing and resilience
Innovation	Trust

Community Outcomes

What we want to achieve together as our city evolves

Strong communities

Strong sense of
community
Active participation in
civic life
Safe and healthy
communities
Celebration of our
identity through arts,
culture, heritage and
sport
Valuing the voices of
children and young
people

Liveable city

Vibrant and thriving
central city, suburban
and rural centres
A well connected and
accessible city
Sufficient supply of, and
access to, a range of
housing
21st century garden city
we are proud to live in

Healthy environment

Healthy waterways
High quality drinking
water
Unique landscapes and
indigenous biodiversity
are valued
Sustainable use of
resources

Prosperous economy

Great place for people,
business and investment
An inclusive, equitable
economy with broad-
based prosperity for all
A productive, adaptive
and resilient economic
base
Modern and robust
city infrastructure and
community facilities

Strategic Priorities

Our focus for improvement over the next three years and beyond

Enabling active citizenship and connected
communities

Maximising opportunities to develop a vibrant,
prosperous and sustainable 21st century city

Climate change
leadership

Informed and proactive
approaches to natural
hazard risks

Increasing active, public
and shared transport
opportunities and use

Safe and sustainable
water supply and
improved waterways

INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE - TERMS OF REFERENCE

Chair	Councillor Cotter
Membership	Councillor Davidson (Deputy Chair), Councillor Buck, Councillor Clearwater, Councillor Galloway, Councillor Keown, Councillor Scandrett and Councillor Templeton
Quorum	Half of the members if the number of members (including vacancies) is even, or a majority of members if the number of members (including vacancies) is odd.
Meeting Cycle	Monthly
Reports To	Council

Areas of Focus

The focus of the Infrastructure, Transport and Environment Committee is the governance of roading and transport, three waters, waste management, and natural hazards protection.

The Infrastructure, Transport and Environment Committee:

- Encourages opportunities for citizenship, community participation and community partnerships
- Works in partnerships with key agencies, groups and organisations
- Considers the impact of climate change in its decisions

The Infrastructure, Transport and Environment Committee considers and reports to Council on issues and activities relating to:

- Water supply, conservation and quality
- Stormwater drainage including the Land Drainage Recovery Programme
- Natural environment, including the waterways, aquifers, ecology and conservation of resources
- Natural hazards protection, including flood protection and river control
- Solid waste minimisation and disposals
- Sewage collection, treatment and disposal
- Roads, footpaths and streetscapes
- Transport including road operations, parking, public transport, cycle ways, harbours and marine structures consistent with Greater Christchurch Public Transport Joint Committee Terms of Reference

Delegations

The Committee delegates to the following working group the responsibility to consider and report back to the Committee:

- Land Drainage Working Group matters relating to the Land Drainage Recovery Programme, including opportunities for betterment.

Major Cycleway Route (MCR) Programme

At the Council meeting of 9 March 2017:

It was **resolved** that the Council:

1. Delegates to the Infrastructure, Transport and Environment Committee the authority to make all decisions in connection with the Major Cycleway Routes (MCR) programme, including final route selections and anything precedent to the exercise by the Council of its power to acquire any property, subject to:
 - a. The Infrastructure, Transport and Environment Committee and affected Community Boards being briefed prior to any public consultation commencing on any Major Cycleway Route project.
 - b. The relevant Community Board Chair(s) will be invited by the Infrastructure, Transport and Environment Committee to participate in the relevant Major Cycleway Route item discussion and give their Board's feedback or recommendations.
2. Notes and reconfirms Council's previous decision to designate the MCR programme a metropolitan project, as set out in the Council's resolutions on 29 January 2015.
 - 13.4 Agree to the Major Cycleway Route programme being declared a Metropolitan Programme and delegate to the Infrastructure, Transport and Environment Committee all decision making powers.

Christchurch Biodiversity Fund

At the Council meeting of 20 June 2017:

It was **resolved** that the Council:

5. Delegate authority to the Infrastructure, Transport and Environment Committee to consider and approve applications to the Christchurch Biodiversity Fund.

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- Part A Matters Requiring a Council Decision
Part B Reports for Information
Part C Decisions Under Delegation
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1. Apologies

At the close of the agenda no apologies had been received.

2. Declarations of Interest

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

3. Confirmation of Previous Minutes

That the minutes of the Infrastructure, Transport and Environment Committee meeting held on [Wednesday, 10 July 2019](#) be confirmed (refer page 8).

4. Public Forum

There will be no public forum at this meeting

5. Presentation of Community Board Feedback

The Chairperson of the Halswell-Hornby-Riccarton Community Board will be invited to the table to present the Board's feedback on the South Express Major Cycleway Route.

6. Hearing of Verbal Submissions

Please refer to page 7 for a schedule of verbal submissions.

Time	Name	Organisation
9.30	Tiger Lu	
9.35	Henk Buunk	
9.40	Howard Dawson	
9.45	<i>Time not allocated</i>	
9.50	Diane and Darren White	
9.55	<i>Time not allocated</i>	
10.00	Sharee Cowles	
10.05	Warren and Wendy Hill	
10.10	Wendy Marshall	
10.15	Jenny Whiteside	
10.20	Ross Houliston	
10.25	Ross Houliston and Mark Peters	Greater Hornby Residents' Association
10.35	Melissa Himin	Templeton Residents' Association
10.45	Morning Tea Break	
11.00	Gwyneth Carlaw	
11.05	Kay Flanagan	
11.10	Mark Wells	Riccarton Community Church
11.20	Warren Grieve	
11.25	Kurt Hewson	
11.30	Ron Greaves	
11.35	Dirk De Lu	Spokes
11.45	<i>Time not allocated</i>	
11.50	Heather Casperson	St Peter's Anglican Church
12.00	Peter Simmonds	
12.05pm	Peter Kelly	

Infrastructure, Transport and Environment Committee OPEN MINUTES

Date: Wednesday 10 July 2019
Time: 1pm
Venue: Council Chambers, Civic Offices,
53 Hereford Street, Christchurch

Present

Chairperson	Councillor Pauline Cotter
Deputy Chairperson	Councillor Mike Davidson
Members	Councillor Vicki Buck
	Councillor Phil Clearwater
	Councillor Anne Galloway
	Councillor Aaron Keown
	Councillor Tim Scandrett
	Councillor Sara Templeton

9 July 2019

Principal Advisor

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- Part A** Matters Requiring a Council Decision
Part B Reports for Information
Part C Decisions Under Delegation
-

The agenda was dealt with in the following order.

1. Apologies

Part C

An apology was received from Councillor Templeton for early departure.

2. Declarations of Interest

Part B

There were no declarations of interest recorded.

3. Confirmation of Previous Minutes

Part C

Committee Resolved ITEC/2019/00023

That the minutes of the Infrastructure, Transport and Environment Committee meeting held on Wednesday, 12 June 2019 be confirmed.

Councillor Clearwater/Councillor Templeton

Carried

4. Public Forum

Part B

There were no public forum presentations.

5. Deputations by Appointment

Part B

There were no deputations by appointment.

6. Presentation of Petitions

Part B

There was no presentation of petitions.

7. Cycle facilities and connection improvements project scope approval

Committee Comment

The Committee agreed that projects 13, 15 and 20 as described in Attachment A are particularly urgent and recommended that these be prioritised.

The Committee also discussed the recommended delegation. Staff clarified that the intention of the delegation was to provide flexibility to make minor adjustments to the project should the need arise, and would not be used to remove or add significant items. The Committee amended the recommended wording accordingly.

Staff Recommendations

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

1. Approve the scope of the project as detailed in Attachment A.
2. Delegate authority for the General Manager City Services to add or delete items to/from this list for investigation and delivery within the overall allocated budget.

Committee Decided ITEC/2019/00024

Part A

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

1. Approve the scope of the project as detailed in Attachment A.
2. Delegate authority for the General Manager City Services to make minor alterations from the list of projects for investigation and delivery within the overall allocated budget.
3. Request staff to prioritise projects 13, 15 and 20 as described in Attachment A.

Councillor Cotter/Councillor Clearwater

Carried

Councillor Templeton left the meeting at 01:59 p.m.

8. Three Waters and Waste report - April/May

Committee Resolved ITEC/2019/00025

Part C

That the Infrastructure, Transport and Environment Committee:

1. Receive the information in the Three Waters and Waste April/May report attached.

Councillor Clearwater/Councillor Scandrett

Carried

9. Multi-Hazard Analysis Stage 2 - Gap Filling Studies - Tsunami
Committee Resolved ITEC/2019/00026

Part C

That the Infrastructure, Transport and Environment Committee:

1. Receive the information in the following Multi-Hazard Analysis project technical reports:
 - a. Land Drainage Recovery Programme: Tsunami Study
 - b. Tsunami inundation modelling for Lyttelton and Akaroa Harbours

Councillor Scandrett/Councillor Clearwater

Carried

10 Resolution to Exclude the Public
Committee Resolved ITEC/2019/00027

Part C

That at 2.35 the resolution to exclude the public set out on pages 250 to 251 of the agenda be adopted.

Councillor Cotter/Councillor Galloway

Carried

The public were re-admitted to the meeting at 2.54pm at which time the meeting concluded.

CONFIRMED THIS 22ND DAY OF JULY 2019

COUNCILLOR PAULINE COTTER
CHAIRPERSON

7. South Express Major Cycle Route

Reference: 19/509476

Presenter(s): Brendan Bisley, Senior Project Manager

1. Purpose of Report

- 1.1 The purpose of the report is to seek the Infrastructure, Environment and Transport Committee's approval for the South Express Major Cycle Route (MCR) for detailed design and construction and to provide information on the outcomes of the consultation and engagement process and the recommended changes as a result of the consultation.

2. Executive Summary

- 2.1 The South Express MCR is one of the 13 Major Cycleway Routes planned across the city and is designed to go from Hagley Park to Templeton, a distance of approximately 14.5km. South Express will be the longest MCR route and will ultimately connect to a cycleway being built by the Selwyn District Council from Rolleston to Templeton, providing a safe cycle facility from Rolleston to the CBD, a distance of approximately 22km to the centre of Rolleston.
- 2.2 The estimated cost of the route is \$36 million to complete its full length. Approximately 7km of the route is shared path, 7km is separated cycleway and 0.5km is greenway.
- 2.3 The South Express connects with the Northern Line MCR and the Nor'West Arc MCR and passes nine schools along its route.
- 2.4 Consultation was undertaken with the community in February and March 2019. Over 12,000 booklets and flyers were delivered to the community prior to the consultation starting. Three public consultation meetings (attended by 116 people) were held along the route, the team meet with 3 residents associations, held a drop in at the Rewi Alley centre on a Saturday morning, presented at two community group lunches, attended the Riccarton Community network meeting, attended the Welcome to Riccarton Community Event on a weekend and held individual meetings with schools along the route that wanted to meet with the team during the consultation. The Council received 642 submissions from this initial consultation.
- 2.5 In addition to the written material, the Council utilised Facebook, Twitter and Neighbourly to advise that the consultation was underway and links to the consultation material. Posters were installed 13 locations along or near the route advertising the consultation was underway and where the information could be found.
- 2.6 As a result of the initial consultation, further engagement was undertaken in five areas along the route on scheme alternatives that addressed some of the concerns raised in the initial consultation. The areas were; Hei Hei Rd/Buchanans Road corner, Taggart Place, a section of Craven Street, Lochee Road and Elizabeth Street between Matipo and Clarence. The Council received a further 120 submissions from this additional engagement on the five areas.
- 2.7 The results of both the initial consultation and the additional engagement are shown in this report.
- 2.8 The results of the original consultation indicate the largest group support the cycleway in the initial consultation with 49%, those that support with concern at 23% and those opposed to the cycleway at 23% and 1% that did not state a preference.
- 2.9 With the additional engagement on the five areas Council asked residents views on alternative designs that addressed the earlier consultation feedback. The changes were supported at the

Hei Hei / Buchanans Corner and Craven Street. In Elizabeth Street, the majority of submitters preferred the original design. In Taggart Place, the majority preferred the original design. In Lochee Road, a number of submissions were received requesting greenway treatment .

3. Staff Recommendations

That the Infrastructure, Transport and Environment Committee:

1. Approve the South Express MCR scheme for detailed design and construction as shown in Attachment A, South Express MCR Drawings 1-56 inclusive.
2. Approve removal of the identified trees to allow implementation of the proposed scheme, as detailed in Attachment A.
3. Approve the purchase of land parcels required to complete the cycleway, as detailed in attachment A.
4. Recommend that the detailed traffic resolutions required for the implementation of the route are brought back to the Infrastructure, Transport and Environment Committee for approval at the end of the detailed design phase prior to the beginning of construction.

4. Context/Background

Issue or Opportunity

- 4.1 The construction of the South Express cycleway is an opportunity to provide safe cycling facilities for the interested but concerned group of cyclists. The area the cycleway passes through is bordered by busy arterial roads, some multi lane, so there are limited opportunities for less confident cyclists to be able to cycle.
- 4.2 The South Express MCR provides a safe route that connects a number of schools and Council facilities and will enable commuters, school pupils and recreational cyclists to be able to safely cycle between the CBD and Templeton and beyond.

Strategic Alignment

- 4.3 This report supports the [Council's Long Term Plan \(2018 - 2028\)](#):

4.3.1 Activity: Active Travel

- Level of Service: 10.5.3.0 More people are choosing to travel by bike - 4,825 average daily cyclists (=2.5% increase per year)

Decision Making Authority

- 4.4 The Infrastructure, Transport and Environment Committee have been delegated the decision making powers on all matters relating to the major cycleways programme by the Council. This project is one of the 13 routes that make up the programme.

Previous Decisions

- 4.5 The Infrastructure Transport and Transport Committee has not previously been asked for any approvals related to the South Express MCR, but did approve the funding for the MCR programme.

Assessment of Significance and Engagement

- 4.6 The decisions in this report are of medium-low significance in relation to the Christchurch City Council's Significance and Engagement Policy.

- 4.7 The level of significance was determined by considering the route alignment impacts on waterways and other sensitive areas, the number of potentially impacted residents and limited impact of previously constructed cycleways on the wider community.

5. Options Analysis

Options Considered

- 5.1 The following reasonably practicable options were considered and are assessed in this report:
- Option 1 – A revised option that incorporates changes as a result of the initial consultation feedback and the re-engagement on five areas. These areas are Hei Hei Road, Middlepark vs Taggart, Craven Road, Lochee Road and Elizabeth Street
 - Option 2 - Consultation option
- 5.2 Prior to the preferred route being consulted with the community, a route selection study was undertaken that considered a number of potential options between Hagley Park and Templeton. This study identified the preferred route through a multi criteria analysis and this was consulted on. The alternative routes identified in the route selection report that were not preferred was due to a combination of unavailable corridors (such as the KiwiRail corridor and the transmission line corridor), unsuitable roads (Riccarton Road, Main South Road and Blenheim Road) and then specific issues such as connection to attractions in the area, impact on the wider transport network, impacts on the residents and businesses, safety and directness.
- 5.3 To develop a preferred route the following constraints were used:
- The start point was Hagley Park at the Old Blenheim Road
 - The end point was at Templeton on Jones Road
 - The route was designed to intersect with the Northern Line MCR at the Old Blenheim Road shared path connecting Hagley Park to Blenheim Road and to connect with the Nor'West Arc MCR where appropriate depending on the route chosen.
- 5.4 The following options were considered but ruled out
- A cycleway along the rail corridor as originally envisaged when the cycleway programme was formed was not possible due to operational constraints along large sections of the railway line and CPTED concerns related to the limited access points that would be possible for cyclists. The rail corridor is disconnected from the community in Riccarton, Upper Riccarton and Hornby which would have limited its use even if the rail corridor could be used.
 - A cycleway along the Transpower Transmission Corridor was considered but some of the land has already been sold and there was not a continuous corridor that could be used for a cycleway.
 - An alternative route was suggested through the feedback received from the community. This route had the cycleway extending from Templeton to Carmen Road before heading back along the rail corridor adjacent to Shands Road to joining onto the shared path beside the Southern Motorway. The proposed route provided no connection to residents in Upper Riccarton or Riccarton areas and would require cyclists to deviate approximately 3km if they were heading towards the CBD direction. Attachment O details why this route was not considered further from a technical perspective.

- An alternative route was suggested that continued the cycleway along Epsom Road, Greenhurst, Takaro Avenue and before joining back onto Main South Road through Sockburn Park avoided Middlepark Road and Craven Street. This route had been one of the initial routes considered in the route selection study but was ranked lower than Middlepark and Craven due to the industrial use of Epsom Road south of Middlepark, the activity along Main South Road between Sockburn Park and Craven Street. Middlepark and Craven is a better route and connects both St Thomas's and Our Lady of Victory schools to the cycleway.
- An alternative cycleway route along Taggart Place was suggested by the community. The affected residents were sent this alternative option as part of the re-engagement but the majority of the residents in Taggart Place were opposed to the cycleway. The original route along Epsom Road and Middlepark Road is more intuitive, has fewer deviations for cyclists and leaves the park area between Taggart Place and Middlepark Road open for use by residents. Attachments M and N discuss this in more detail.
- A greenway treatment along Lochee Road has been suggested by the residents in Lochee Road as part of the consultation to retain the street trees and maximise parking. The traffic volume in Lochee Road is already above the upper threshold (1500vpd) for a greenway and is projected to climb to 4,000vpd in 2031 in the CAST model. Speeds are also above the 30km/h threshold for a greenway even though the street has extensive road calming and speed humps already installed. In addition, due to the activity mix in Lochee Road with sport and the church, there is high parking demand at times and cyclists trying to navigate a busy street with high numbers of vehicles manoeuvring into and out of carparks will create an environment that causes the interested but concerned cyclists to avoid using the cycleway. A separated cycleway is a safer and more attractive option and street trees can be retained by removing some additional on street carparks. The proposed road cross section (vehicle lanes, parking lane and cycleway facility) are similar to that used on Collins Street on the Little River MCR and this has worked well. Attachments J and K discuss this in more detail.
- A continuation of the cycleway along Waterloo Road between Hei Hei Road and Racecourse Road was investigated as this would have been a more direct route and would connect to the industrial area. There is already an off road facility along part of Waterloo Road but it is not highly used by cyclists. This business area has a high number of courier companies, freight companies and other businesses that have high volumes of traffic entering and exiting their premises. It was not possible to create a safe facility without excessive impact on Waterloo Road as all of the on street parking needed to be removed and the driveways rationalised, but even with this the facility was felt to be marginal for the interested but concerned user group. It also missed the residential development to the north.

Options Descriptions

5.5 Preferred Option: Option 1 Post Consultation Option (preferred)

5.5.1 **Option Description:** The route is approximately 14.5km long and travels along these following streets with the treatment type shown adjacent:

- Old Blenheim Road –shared path
- Blenheim Road (Mandeville to Picton) – shared path on the north side
- Picton Avenue (Blenheim to Elizabeth) – two-way separated
- Elizabeth Street (Picton to Wainui) – two-way separated
- Elizabeth Street (Wainui to Centennial) – greenway and two-way separated

- Centennial Avenue (Peveral to Elizabeth) – two-way separated
- Peveral Street (Centennial to Wharenui) – two-way separated
- Lochee Road (Wharenui to no 37 Lochee) – two-way separated
- Middleton Park (Lochee to Middleton) – shared path
- Suva street(Middleton to Hanson’s Lane) – this is part of the Norwest Arc MCR and is a two-way separated facility
- Suva Street (Hanson’s Lane to Ballentyne) – two-way separated facility
- Ballentyne Avenue – greenway
- Main South Road (Ballentyne to Craven) – two-way separated facility and short sections of shared path
- Craven Street – two-way separated facility
- Middlepark Road (Craven to Epsom) – two-way separated
- Epsom Road (Middlepark to Paparoa Stream Reserve) – shared path
- Transmission Corridor (Racecourse to Carmen) – shared path
- Carmen Road (transmission corridor to Buchanan’s) - shared path
- Buchanans Road (Carmen to Hei Hei) – two-way separated
- Hei Hei Road – two-way separated
- Waterloo Road (Hei Hei to Kirk) – shared path
- Jones Road (Kirk to Globe Bay Drive) – shared path

5.5.2 The Riccarton section of this route mirrors the older recommended cycle route (blue disk route) that was signed as an alternative to using Blenheim Road or Riccarton Road in the 1990’s. The route was unsuccessful in attracting cyclists as it was hard for cyclists to get across the busy north south arterial links that are in Riccarton. The South Express resolves that issue by installing new traffic signals to allow the cyclists to move east to west or west to east with ease.

5.5.3 Along the route there are 13 intersection that need new traffic signals or upgrades to existing signals.

5.5.4 The route has three facility types, two way separated, shared paths and limited areas of greenways. The greenways have been used where traffic volumes are lower than 1000vpd in line with the cycle design guidelines. In some cases, cul-de-sac treatments have been used to ensure the traffic volume remain at a level to suit the use of greenways in the future. The shared paths have predominately been used where there are currently no pedestrian facilities, so the cycleway will provide better access for residents walking, but where future cycle and pedestrian volumes will not make the shared path unsafe for either user. The two-way cycleways have been used where traffic volumes are sufficiently higher, enabling a separation from vehicles.

5.5.5 The route includes a connection to the Tower Junction business area on the west side of the existing access road. A future connection via a shared path to the proposed library and pool facility to be constructed in Kyle Park could easily be accommodated along Waterloo Road.

- 5.5.6 The cycleway will ultimately connect to a cycleway planned to be constructed by Selwyn District Council from Rolleston along Jones Road, providing a connected facility from the city centre to Rolleston.
- 5.5.7 The route utilises part of the Norwest Arc MCR along Suva Street (Hanson's Lane to Middleton Road) to provide the linkage to the Norwest Arc MCR. It also joins the Northern Line MCR on the shared path built along the alignment of the now removed Blenheim Road overbridge that is beside Placemakers.
- 5.5.8 Land is required to be purchased on Blenheim Road at two properties to accommodate the desirable width of the shared path. The two owners affected are aware of the potential need to purchase land if the project was to proceed.

5.5.9 **Option Advantages**

- 75 changes have been made along the route to reflect the consultation feedback. These range from small changes at specific locations along the route to more significant changes in Craven Road and Lochee Road as a result of the additional engagements undertaken. Some changes have occurred in more than one location but has been countered as a single change.
- 43 new carparks have been created through changes to the design following consultation. 58 new carparks were created, but 15 were removed giving a nett total of 43.
- The proposed route will allow for connection to the cycleway being constructed by the Selwyn District Council from Rolleston along Jones Road.
- The proposed route is through the middle of the residential community in Riccarton, providing cyclists a safe cycle route without the need to use either Riccarton Road or Blenheim Road. For students at the University, the route connects to the Norwest Arc MCR at Middleton Road which then allows them to cycle on a separated facility to the University.
- The route passes nine schools, allowing pupils a choice on how they can travel to and from school via bicycle or scooter.
- The new mid-block traffic signals installed to cross Clarence Street, Matipo Street and Wharenui Road will allow cyclists to get across these busy north south flowing roads.
- The new signals are being installed to facilitate the cycleway provide a significant improvement for the safety of pedestrians by providing a safe crossing point across busy arterial roads.
- The traffic signals at Matipo/Elizabeth provides a signalised crossing for the students of Wharenui School and allows the removal of the pedestrian crossing on Matipo Street.
- The 40km/h school speed zone on Matipo Street will improve safety for the school children during the morning and afternoon drop off and pickup periods.
- The proposed P120 parking in the block between Peveral/Blenheim/Matipo and Clarence will provide high turnover parking for visitors and activities in the area. There is currently a reasonable level of all day worker parking that makes it difficult for residents, pool complex and church to have available parking in the area.
- The street trees in Lochee Road are retained and the construction of the separated facility will visually narrow the road the road which will assist in slowing traffic

using the route. The high speed of vehicles using the street has been a complaint from residents in Lochee Road for a number of years.

- The parking changes in Ballentyne Avenue will retain a wider road width during the day when the majority of the cyclists using the South Express MCR will be sharing the road and traffic volumes are higher. In the evening, residents and those attending functions at La Vida will be able to utilise the additional parking.
- The changes in Craven Road will reduce the chances of conflict between cyclists and students at Our Lady of Victory School by having the cycleway on the opposite side of the road. It also improves capacity at the intersection by allowing two lane discharge onto Main South Road.
- The route replaces a significant length of older dish channel, and renews footpaths along the route in both Riccarton and Hornby that needs to be replaced to construct the separated cycleway.
- The route through the transmission corridor by Riccarton Raceway will connect the new subdivision into the cycle network. It also provides pedestrian facilities for the existing users of that area who already walk along the corridor.
- The revised intersection layout at Gilberthorpes/Waterloo will improve the safety at the intersection by closing Moffatt Street. This will simplify the number of crossing movements motorists, cyclists and pedestrians need to watch for when going through the intersection.
- The shared path between Templeton and the Waterloo Business Park will provide safe facilities for the walkers that are observed to already be walking in this area.
- The installation of the separated facilities visually narrows the road width. This will assist with lowering vehicle speeds as drivers slow with narrower lanes. In residential streets this improves safety for residents and users of the streets.
- The cycleway crossing point outside St Thomas's on Middlepark Road provides a crossing point with good visibility for cyclists, but also provides a safer crossing point for students to move from the school to their sports grounds.
- The relocation of the bus stop outside 126 Hei Hei Road allows additional on street carparks to be created directly outside the community facility.
- The changes outside St Bernadette's church and school have added an additional 13 carparks plus a drop off zone for parents on the same side of the road as the school. The crossing is also changed to a kea crossing facility.

5.5.10 Option Disadvantages

- There is a reduction in available on street car parking on the streets with the cycleway. The reduction is required to accommodate the cycle facility and is similar to other constructed separated cycleways across the city.
- The intersection treatment at Elizabeth/Division prevents vehicles driving along Elizabeth Street between Clarence and Matipo.
- There are a number of cul-de-sac treatments proposed (Elizabeth at Clarence, Elizabeth at Wainui, Division at Elizabeth, Ballentyne at Suva and Moffatt at Gilberthorpes) to reduce traffic volumes to make the cycle facility safer. These will result in some severance issues for residents who may need to travel in a slightly different direction to get to or from their properties.

- The additional traffic signals will delay traffic on the roads where the signals will be installed but are needed to safely allow cyclists and pedestrians to safely cross.
- Between Hei Hei Road and Epsom Road the route is not as direct as other potential options such as continuing along Waterloo Road, but it was not possible to construct a safe facility for the interested but concerned cycle user group due to the nature of the businesses in Waterloo Road and the high number of large vehicles going into and out of the various businesses. The alternative route better connects with the residential areas.
- Two areas of land are required between Picton Avenue and Mandeville Street to accommodate the shared path. The land purchase will not require the demolition of buildings.
- Some existing street trees need to be removed along Picton Avenue to accommodate the cycleway. New trees will be planted where we have sufficient berm width clear of services to accommodate the trees.
- Retaining the trees in Lochee Road will reduce the number of available carparks.

5.6 Option 2 Consultation Option

5.6.1 **Option Description:** This option is very similar to Option 1 but the key changes are:

- The trees in Lochee Road have not been retained to provide more on street car parking.
- The cycleway crossing point in Craven Road is close to the intersection and the cycleway passes in front of the Our lady of Victory School entrance and school bus stop, resulting in a higher likelihood of conflict.
- The 75 changes have not been made to the scheme to reflect the submitter's comments.

5.6.2 **Option Advantages**

- This option provides more on street carparks in Lochee Road by removing the street trees.

5.6.3 **Option Disadvantages**

- This option does not take account of the feedback from submitters.

6. Community Views and Preferences

- 6.1 The community views on the consulted option are included in Attachment F. A high level summary of the feedback is:
- 6.2 Council received 642 submissions on the project from the initial consultation
- 6.3 In the initial consultation, 49% supported the proposal, 23% support with concerns and 26% did not support the proposal. 1% did not state a response as to whether they supported or did not support the proposal.
- 6.4 106 submissions were received from people who live or own property along the streets directly impacted by the proposed cycleway. 21% supported the cycleway, 32% supported the cycleway but had some concerns and 41% did not support the cycleway. 6% of submitters did not indicate a preference.

- 6.5 The key concerns identified by all submitters were value for money in building a cycleway, residential parking loss, route design with suggested alternatives and local impacts to the network from the cycleway changes.
- 6.6 The key benefits of the proposal identified by submitters were better cycle safety, encouragement of children and new riders to bike, promotion of alternative modes and improvements to the environment.
- 6.7 There were five key areas that had a higher number of submissions in the initial consultation undertaken: Hei Hei Road (61 submissions), Middlepark/Epsom (35 submissions), Craven Road, Lochee Road (19 submissions) and Elizabeth Street (Matipo to Clarence) (78 submissions). As a result, alternative designs were developed for these locations and engagement was undertaken with directly affected property owners.
- 6.8 The key issues identified by submitters in these areas were:
- Elizabeth Street – not value for money, loss of parking and concerns around the impacts of the road layout changes.
 - Lochee Road – loss of parking and removal of the existing street trees.
 - Craven – narrowing of the intersection at Main South Road and conflict with the school entrance and school bus stop.
 - Middleton/Epsom – impact on parking, safety at the intersection and congestion caused by the inline bus stop.
 - Hei Hei Road – loss of car parking and safety for children needing to cross the street for school.
- 6.9 Council received 120 submissions from the additional engagement on the five targeted areas. The detail is shown in the consultation summary in Attachment F
- 6.10 In Elizabeth Street, the majority of submitters preferred the original consulted design, favoured the parking restrictions and supported the 40km/h speed zone on Matipo Street for Wharenui School.
- 6.11 In Lochee Road, the majority of submitters supported the installation of a greenway treatment rather than a separated cycleway.
- 6.12 In Craven Road, the majority supported the alternative layout.
- 6.13 In Epsom/Middlepark, the majority supported the retention of the original route via Epsom and Middlepark.
- 6.14 In Hei Hei Road, the majority supported the revised layout, although this consultation was targeted to only the directly affected residents.
- 6.15 A number of technical notes have been attached to this report that provide detailed assessments of the issues around the Middlepark Road and Taggart Place options, the treatment type on Lochee Road and alternative routes, Elizabeth Street v Peveral Street and the facility type for Elizabeth Street. The technical notes provide the basis of the recommended route and facility types along the route.

7. Legal Implications

- 7.1 There is not a legal context, issue or implication relevant to this decision
- 7.2 This report has not been reviewed and approved by the Legal Services Unit

8. Risks

- 8.1 The project will need KiwiRail approval for some works near their infrastructure at the Templeton end of the project. This is not scheduled to be constructed until the end of the construction which gives time to obtain these approvals. If we are unable to achieve agreement with KiwiRail we can relocate the path to avoid the use of their land.
- 8.2 There is some minor land purchase required. We are able to construct a workable facility if that land purchase took longer than expected and then construct the final layout at completion of the land purchase.

9. Next Steps

- 9.1 If the project is approved, detailed design would commence with construction of the first stage planned to commence in early 2020. Design and construction would then progressively continue as funds are available with construction to Hornby completed in FY21. The remaining section to Templeton would be completed as funds are allocated in the LTP.

10. Options Matrix

Issue Specific Criteria			
Criteria		Option 1 – Post Consultation Amended Option	Option 2 – Consulted Option
Financial Implications	Cost to Implement	\$36 million	\$36 million
	Maintenance/Ongoing	The additional maintenance costs were assessed when the MCR programme was approved and the budget adjusted to account for the cycleways	The additional maintenance costs were assessed when the MCR programme was approved and the budget adjusted to account for the cycleways
	Funding Source	FY18-28 LTP	FY18-28 LTP
	Impact on Rates	Nil	Nil
Criteria 1 e.g. Climate Change Impacts		This option reduces vehicle emissions by encouraging more residents to cycle or walk for local trips and longer trips.	This option reduces vehicle emissions by encouraging more residents to cycle or walk for local trips and longer trips.
Criteria 2 e.g. Accessibility Impacts		The new signalised crossings will improve access for pedestrians and make it easier to cross the busy arterial roads that pass through Riccarton such as Clarence street, Matipo Street and Wharenui Road.	The new signalised crossings will improve access for pedestrians and make it easier to cross the busy arterial roads that pass through Riccarton such as Clarence street, Matipo Street and Wharenui Road.
Criteria 4 e.g. Future Generation Impacts		This option provides long-term choices regarding commuting options for the public either via cycling or walking.	This option provides long-term choices regarding commuting options for the public either via cycling or walking.

Statutory Criteria		
Criteria	Option 1 – Post Consultation Amended Option	Option 2 – Consulted Option
Impact on Mana Whenua	This option does not involve a significant decision in relation to ancestral land or a body of water or other element of intrinsic value, therefore the decision does not specifically impact Ngai Tahu, their culture and traditions.	This option does not involve a significant decision in relation to ancestral land or a body of water or other element of intrinsic value, therefore the decision does not specifically impact Ngai Tahu, their culture and traditions.
Alignment to Council Plans & Policies	This option is consistent with Council Plans and Policies and provides significant improvements to the cycling facilities in the Templeton, Hornby, Sockburn and Riccarton areas.	This option is consistent with Council Plans and Policies and provides significant improvements to the cycling facilities in the Templeton, Hornby, Sockburn and Riccarton areas.

Attachments

No.	Title	Page
A ↓	Revised Scheme Drawings for Approval	27
B ↓	Wharenui School 40km/h speed zone	83
C ↓	Riccarton Area parking changes	84
D ↓	Design changes due to consultaion	85
E ↓	Consultation social media report	95
F ↓	Consultation feedback report	100
G ↓	Elizabeth/Clarence intersection technical report	129
H ↓	Elizabeth Street facility type technical report	135
I ↓	Peveral v Elizabeth Street technical report	136
J ↓	Lochee Road facility type technical report	141
K ↓	Lochee Road alternative route technical report	144
L ↓	Middlepark Road zebra crossing option technical report	148
M ↓	Middlepark v Taggart route options technical report	151
N ↓	Middlepark - Taggart intersection technical report	155
O ↓	Sth Express Hornby rail corridor alternative technical report	156
P ↓	Sth Express Carmen Road technical report	163
Q ⇒	Full Route - Submissions Table <i>(Under Separate Cover)</i>	
R ⇒	Full Route - Attachments to Submissions <i>(Under Separate Cover)</i>	
S ⇒	Lochee Road - Submissions Table <i>(Under Separate Cover)</i>	
T ⇒	Lochee Road - Attachments to Submissions <i>(Under Separate Cover)</i>	
U ⇒	Elizabeth Street - Submissions Table <i>(Under Separate Cover)</i>	
V ⇒	Elizabeth Street - Attachments to Submissions <i>(Under Separate Cover)</i>	
W ⇒	Craven Street - Submissions Table <i>(Under Separate Cover)</i>	
X ⇒	Taggart Place - Submissions Table <i>(Under Separate Cover)</i>	
Y ⇒	Bus Stops - Submissions Table <i>(Under Separate Cover)</i>	

Confirmation of Statutory Compliance

Compliance with Statutory Decision-making Requirements (ss 76 - 81 Local Government Act 2002).

(a) This report contains:

- (i) sufficient information about all reasonably practicable options identified and assessed in terms of their advantages and disadvantages; and
- (ii) adequate consideration of the views and preferences of affected and interested persons bearing in mind any proposed or previous community engagement.

(b) The information reflects the level of significance of the matters covered by the report, as determined in accordance with the Council's significance and engagement policy.

Signatories

Authors	Brendan Bisley - Senior Project Manager Ann Campbell - Senior Engagement Advisor
Approved By	Lynette Ellis - Manager Planning and Delivery Transport Peter Langbein - Finance Business Partner Richard Osborne - Head of Transport David Adamson - General Manager City Services

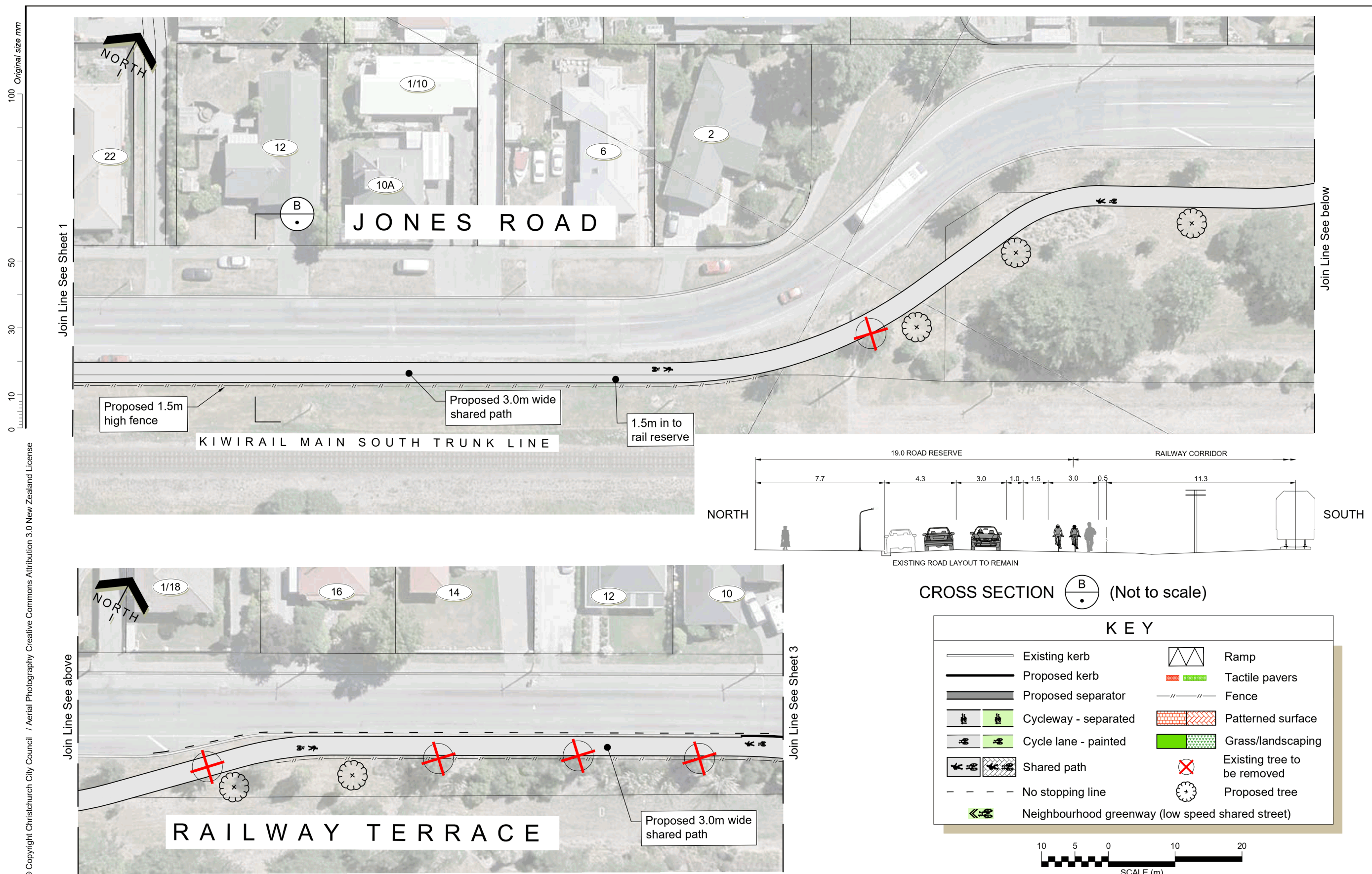


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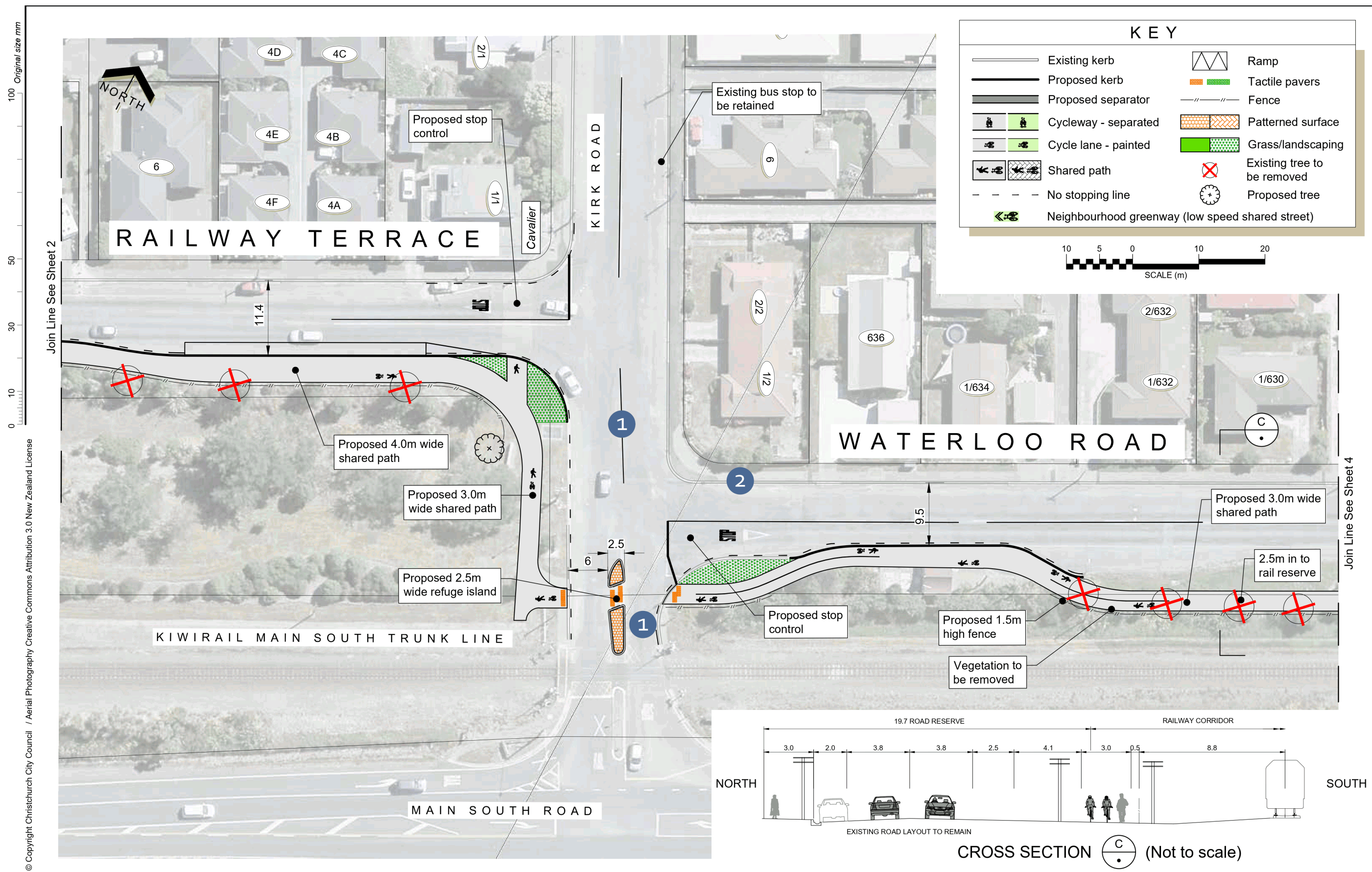
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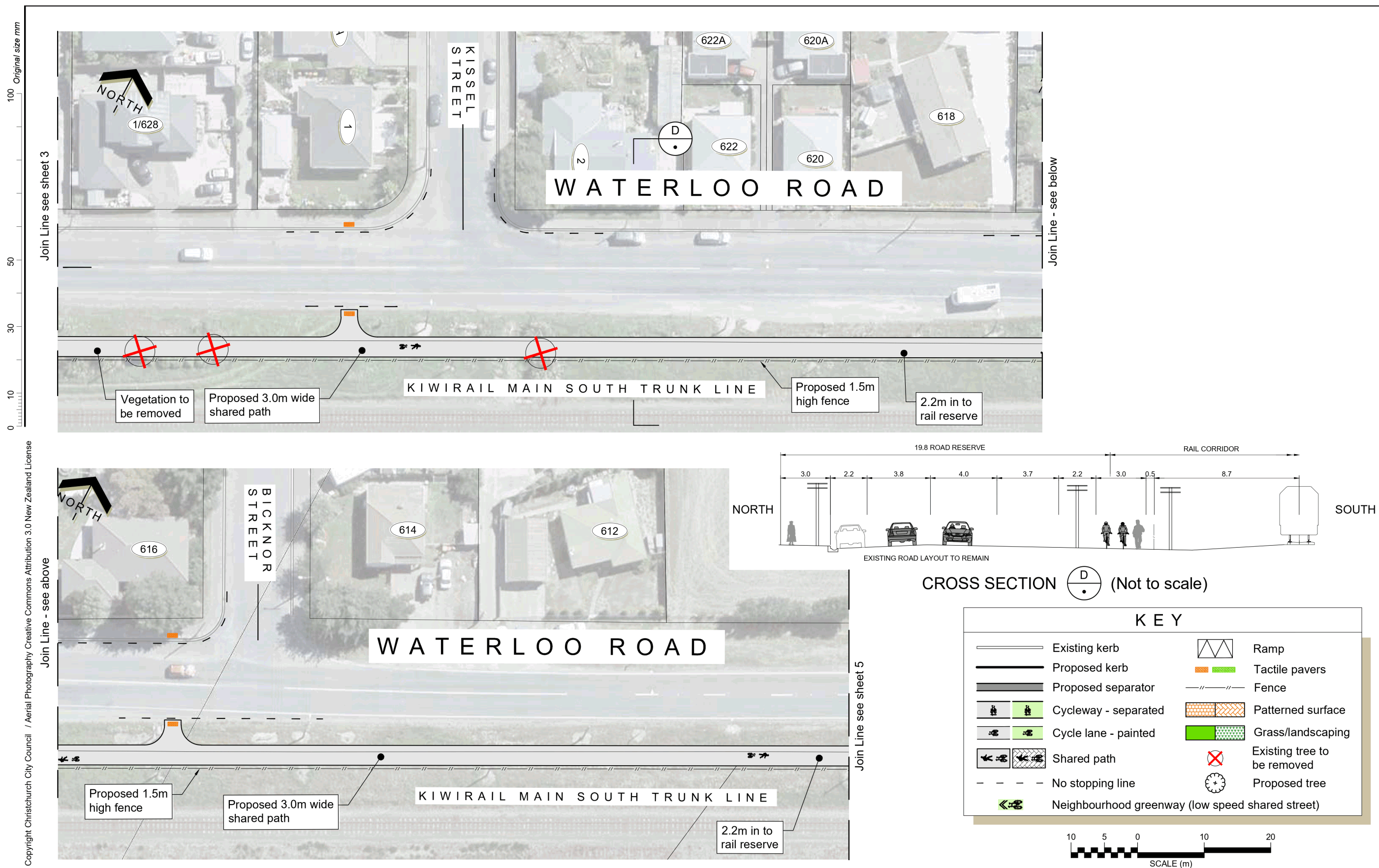
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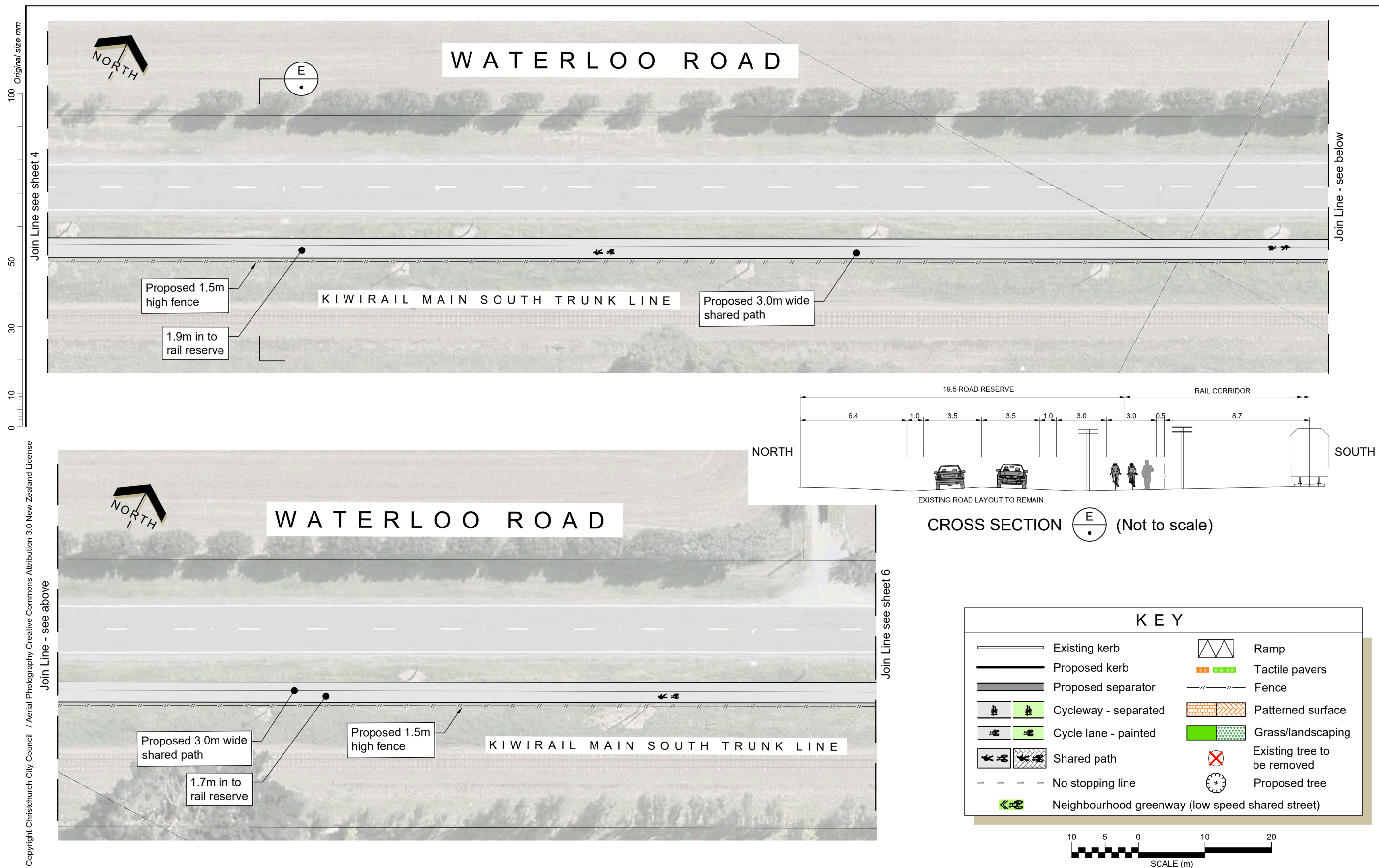


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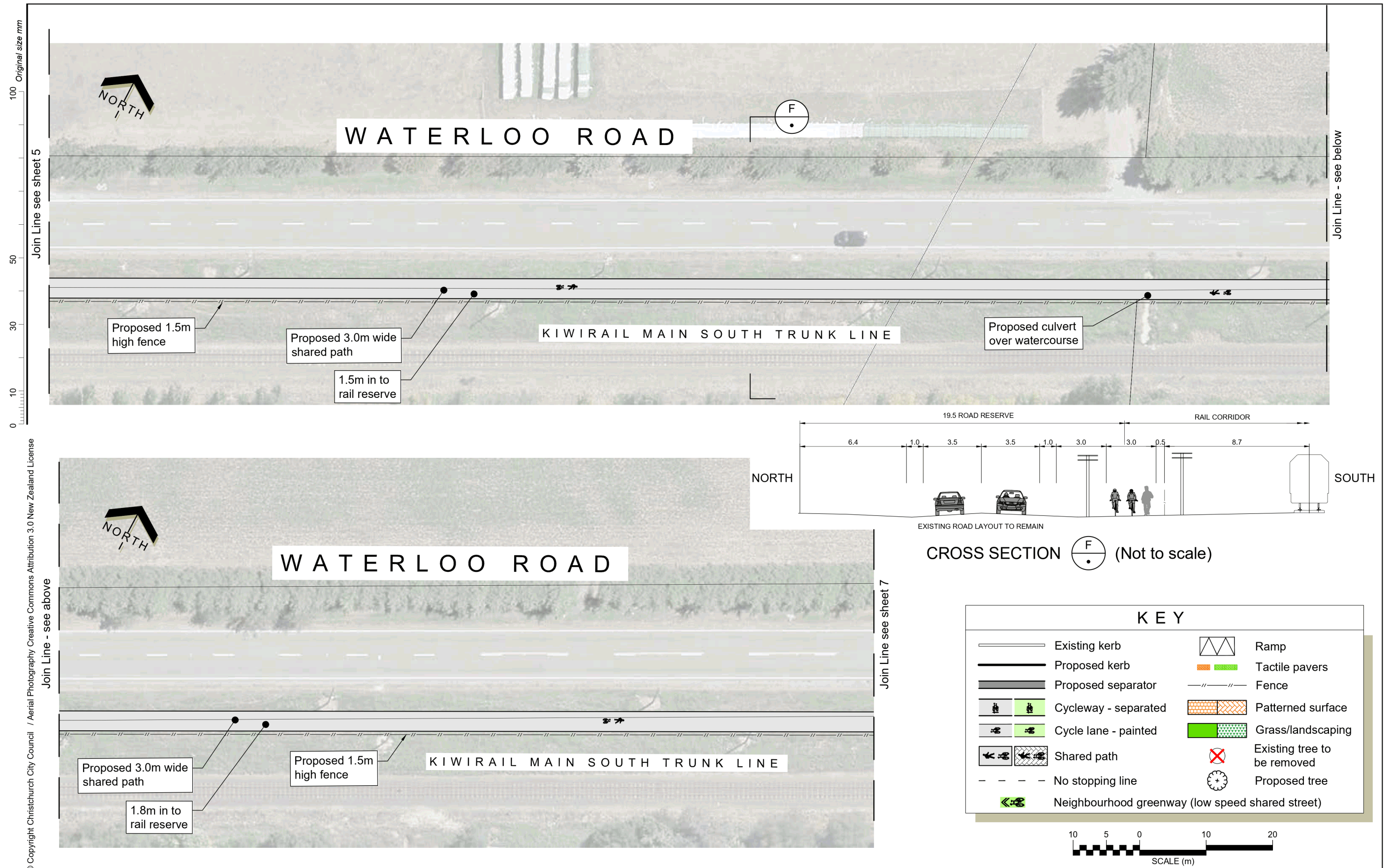


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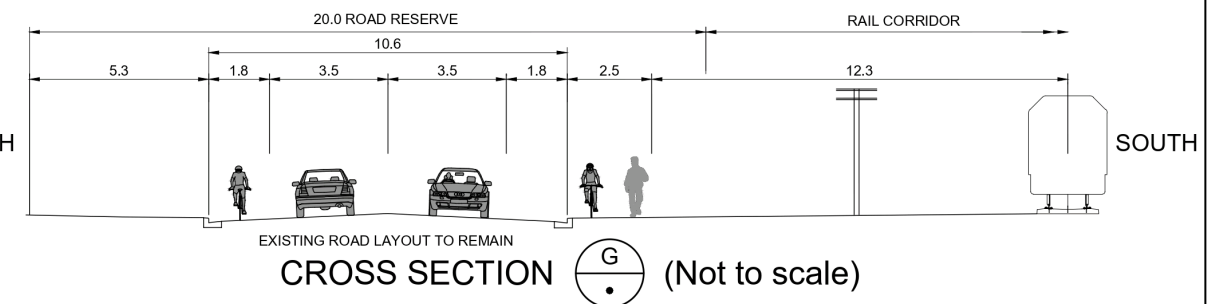
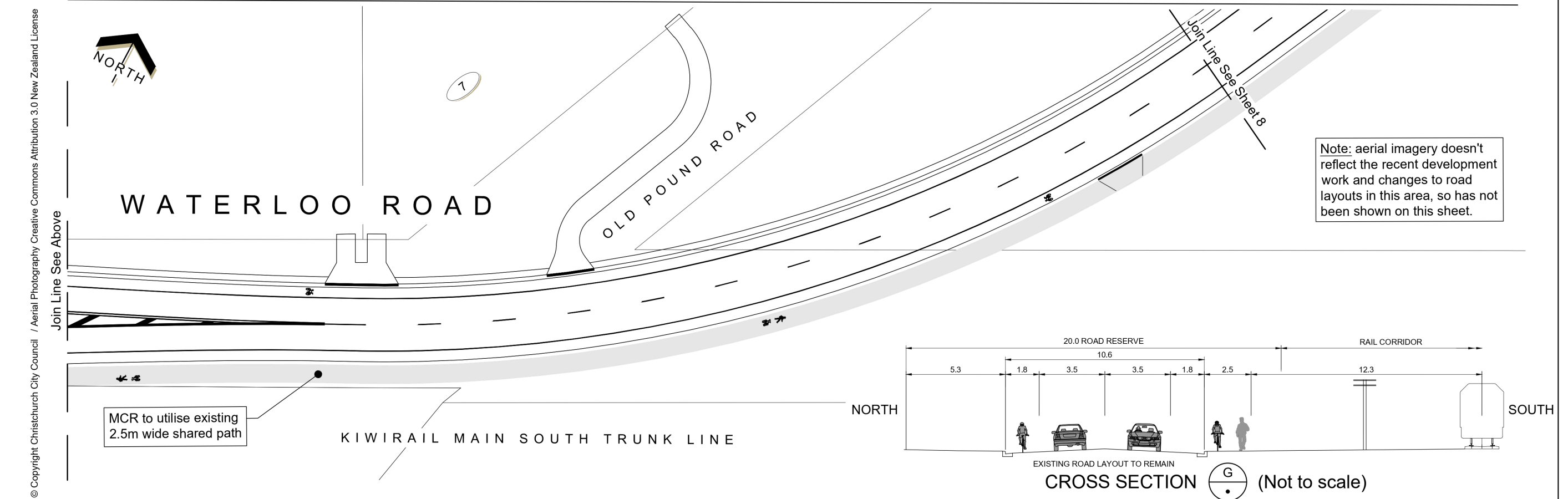
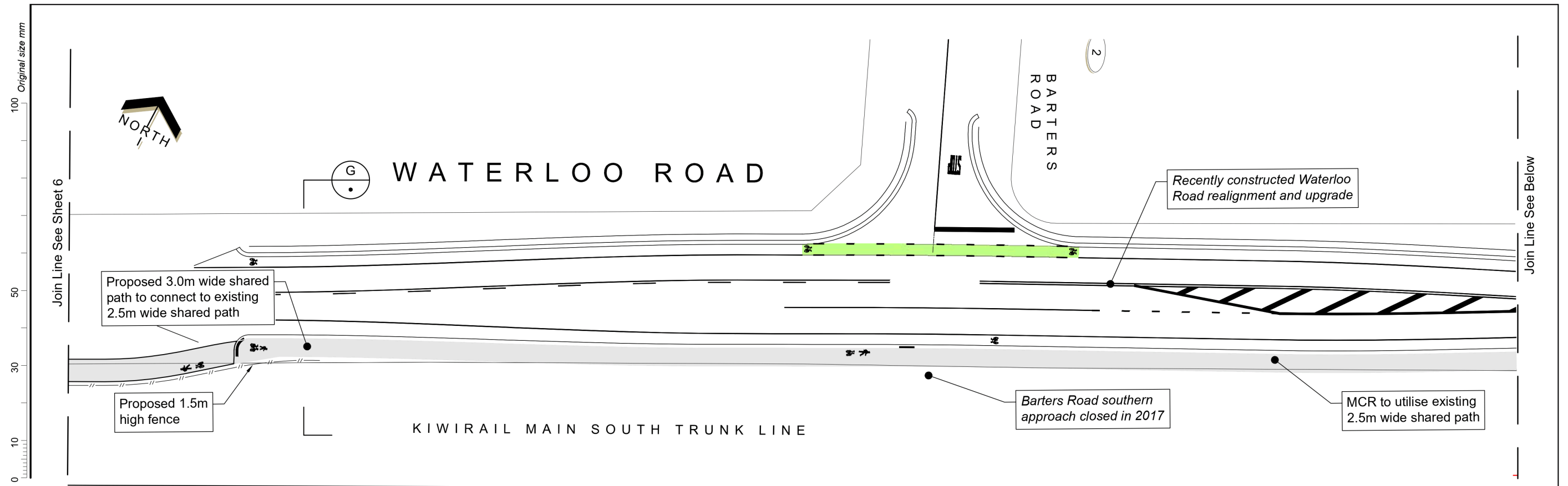


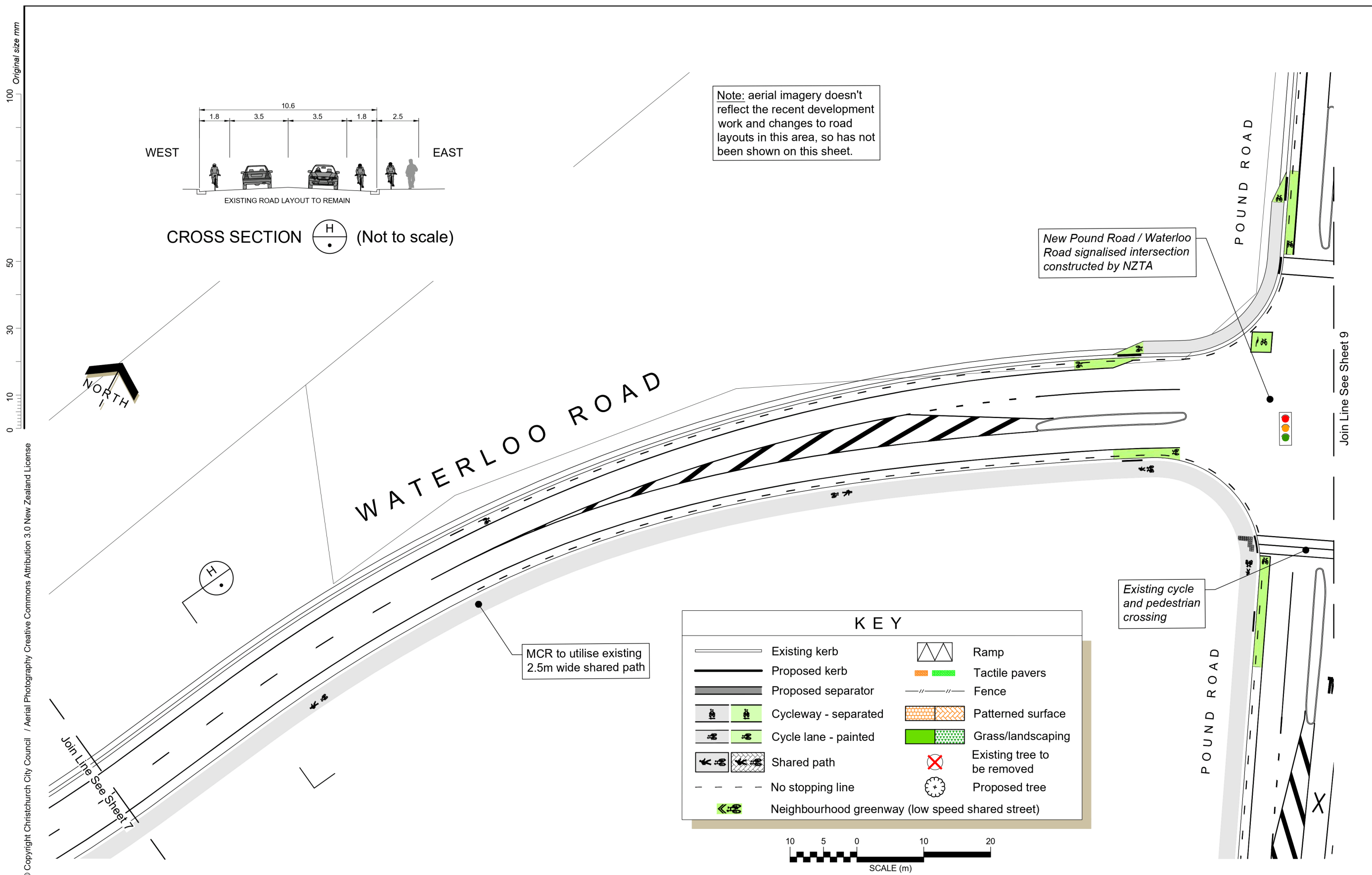


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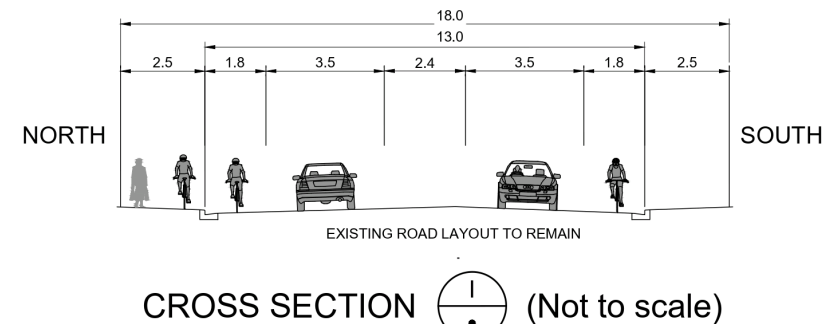
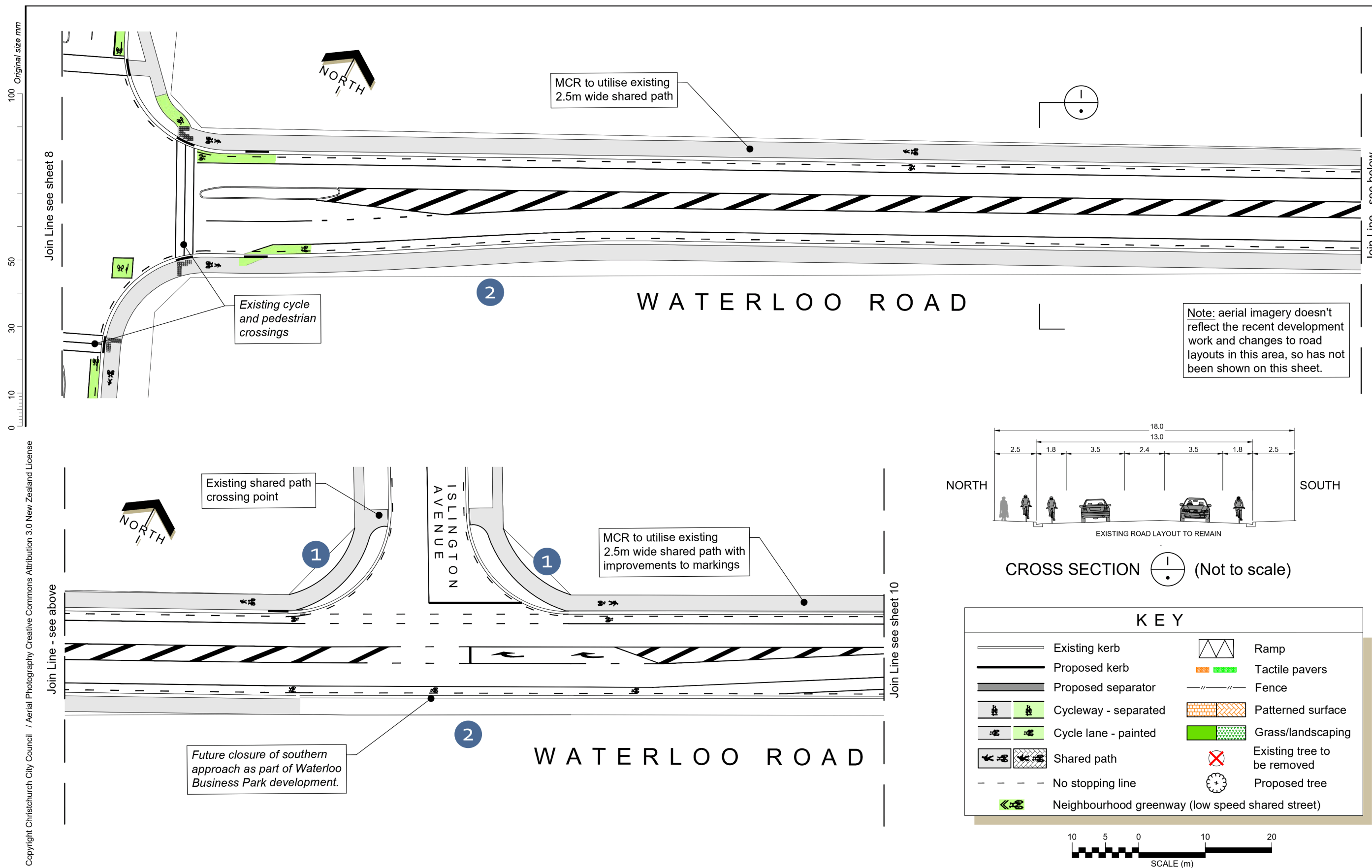


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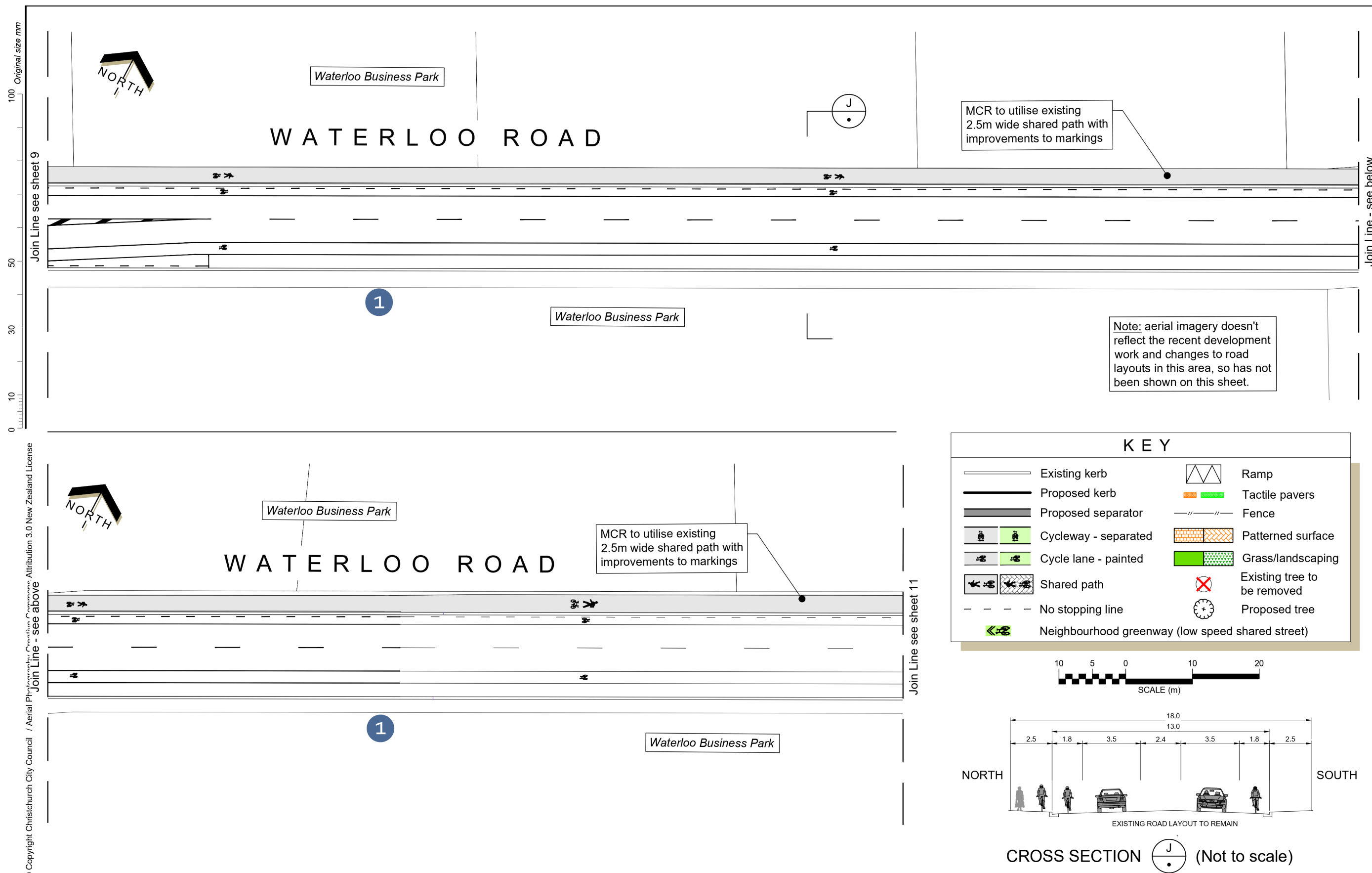


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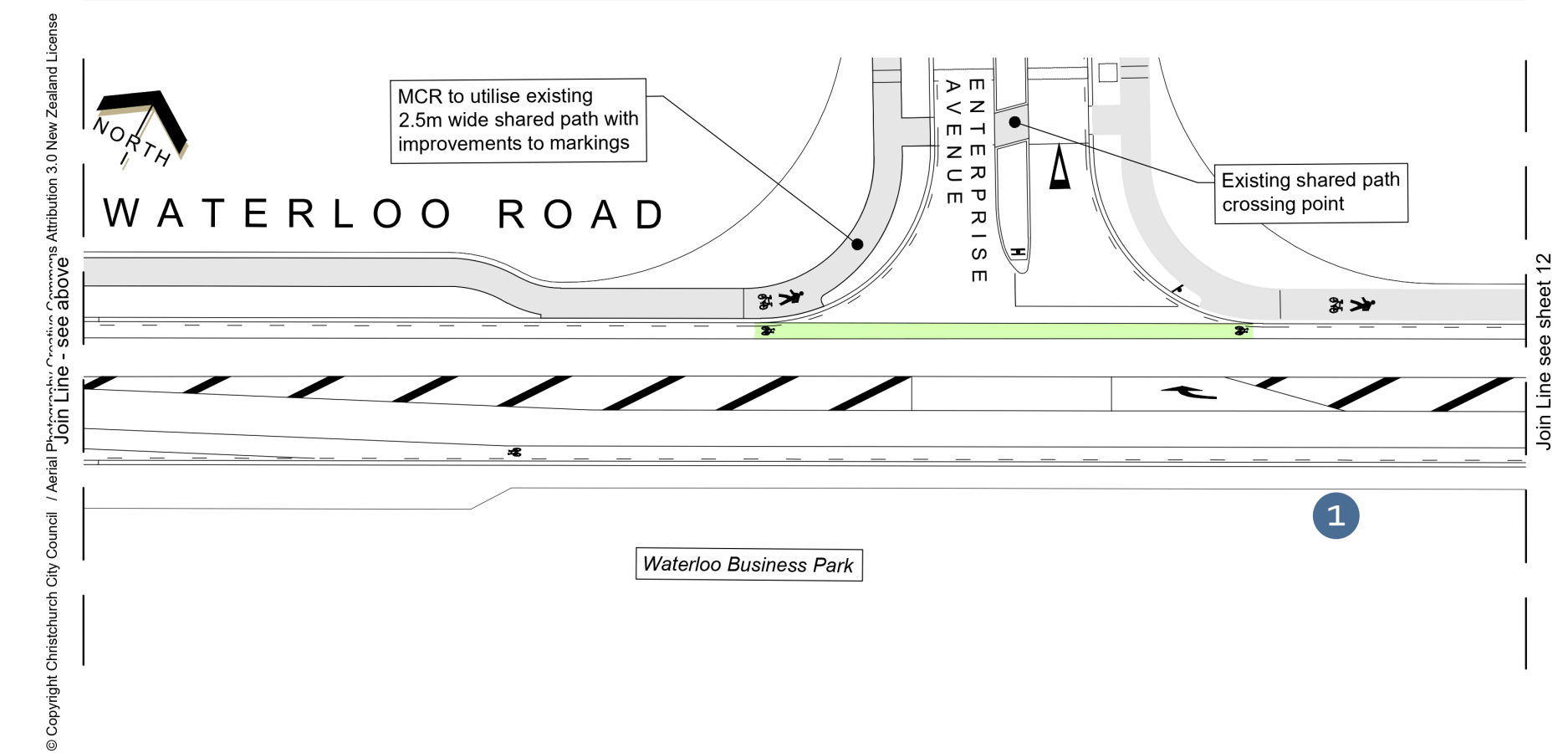
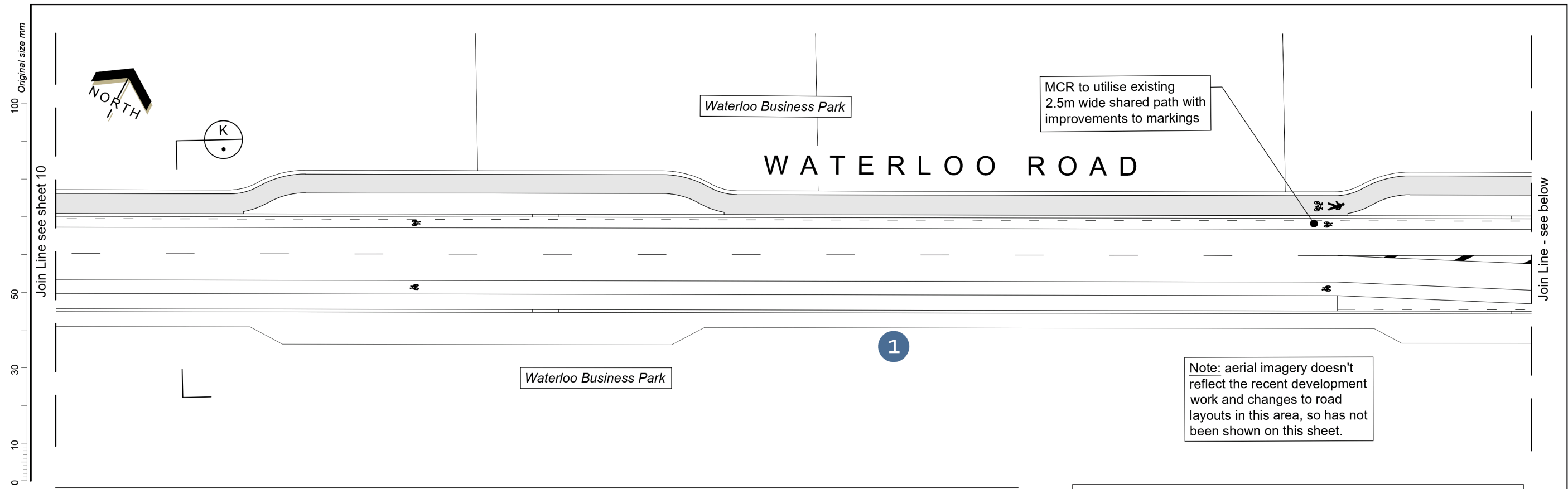
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	Cycle lane - painted		Grass/landscaping
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	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		



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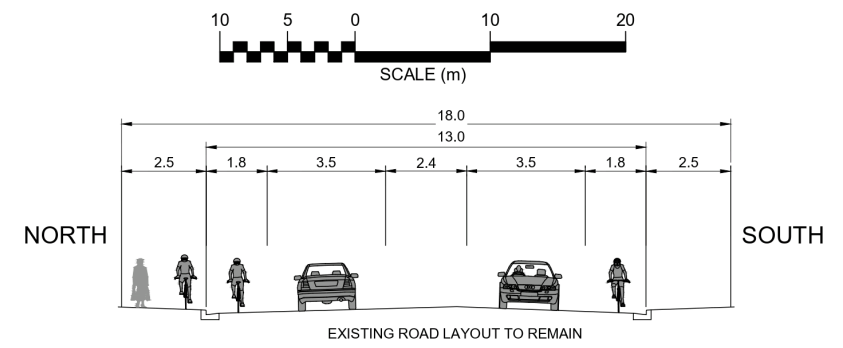


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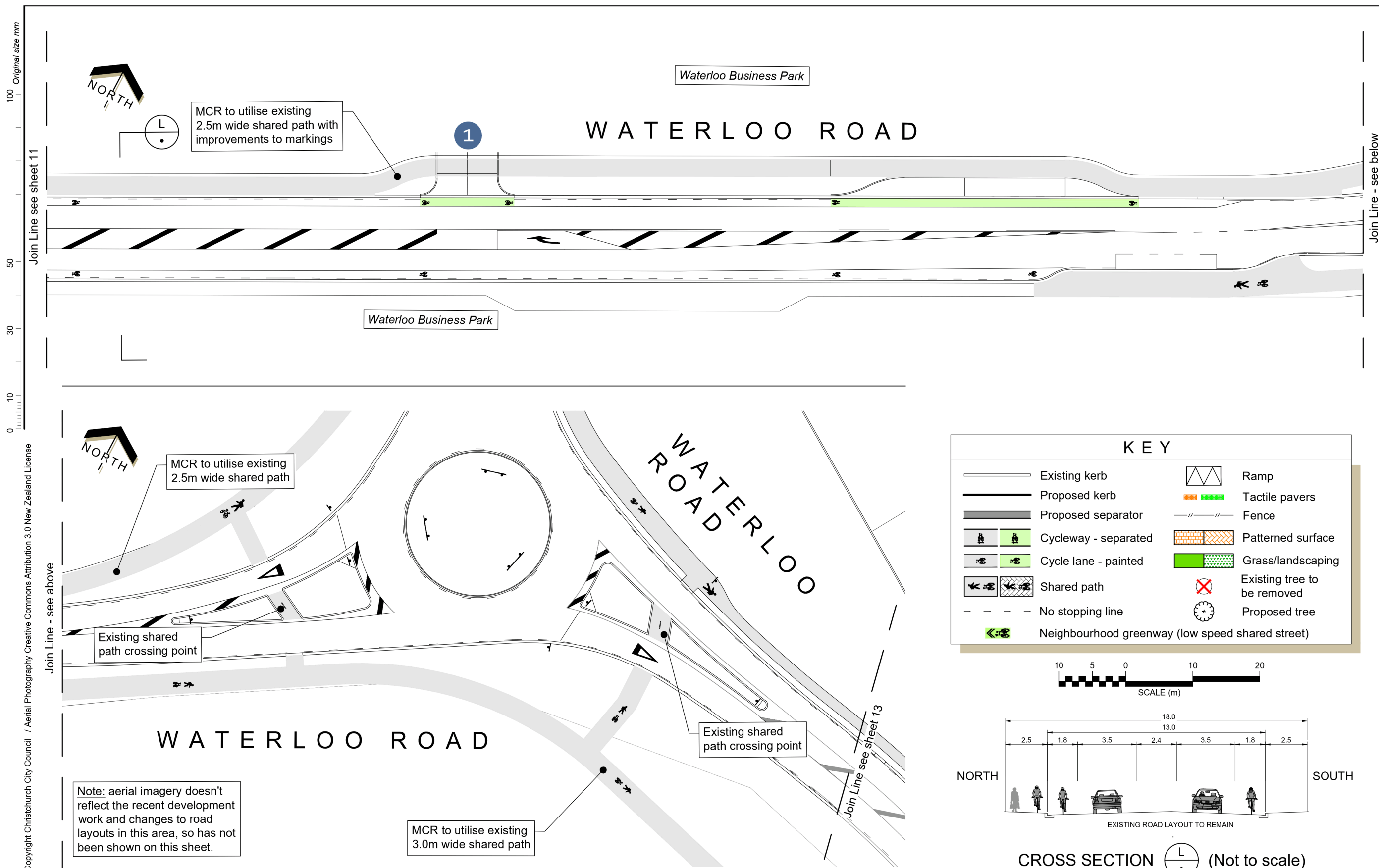


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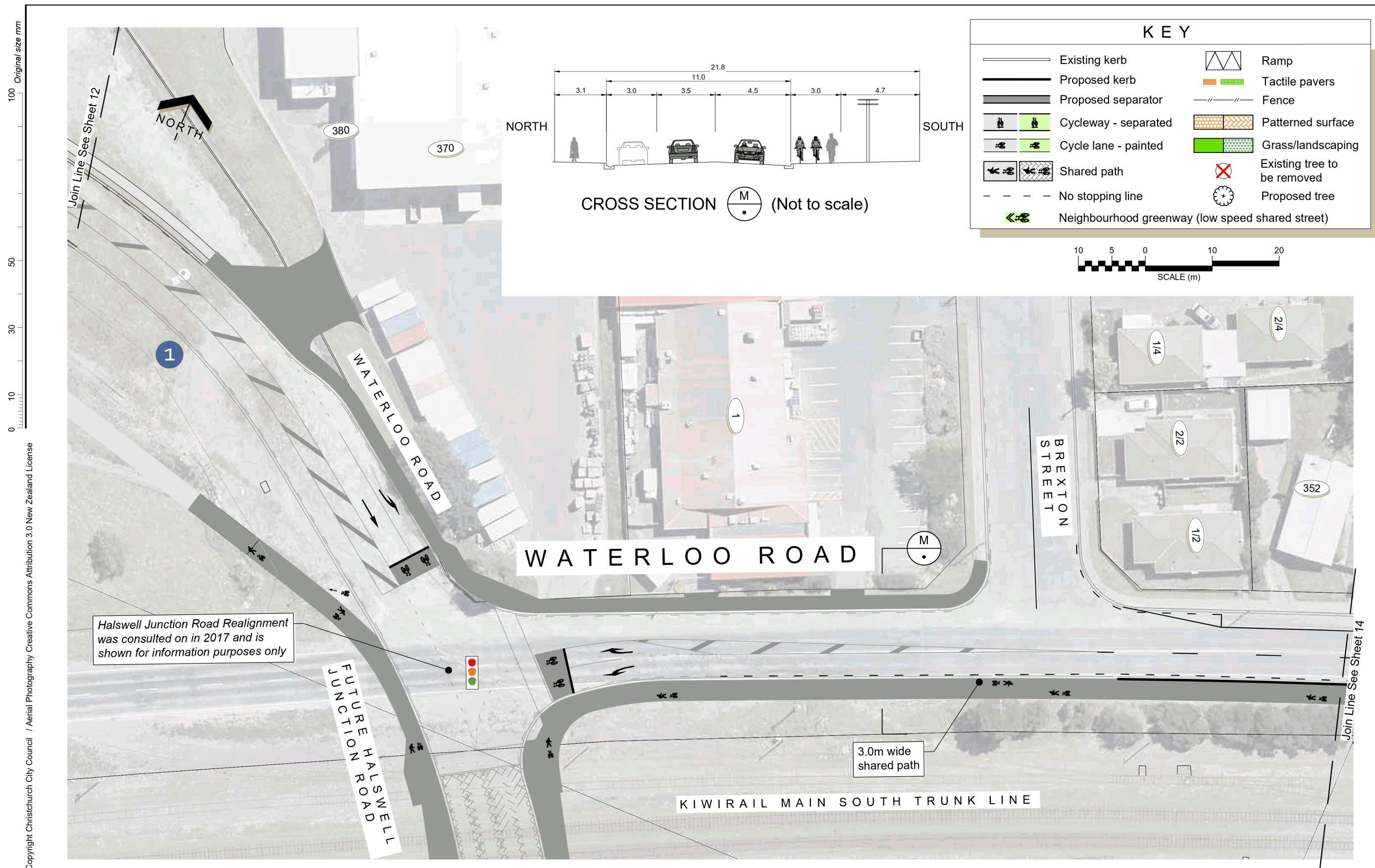
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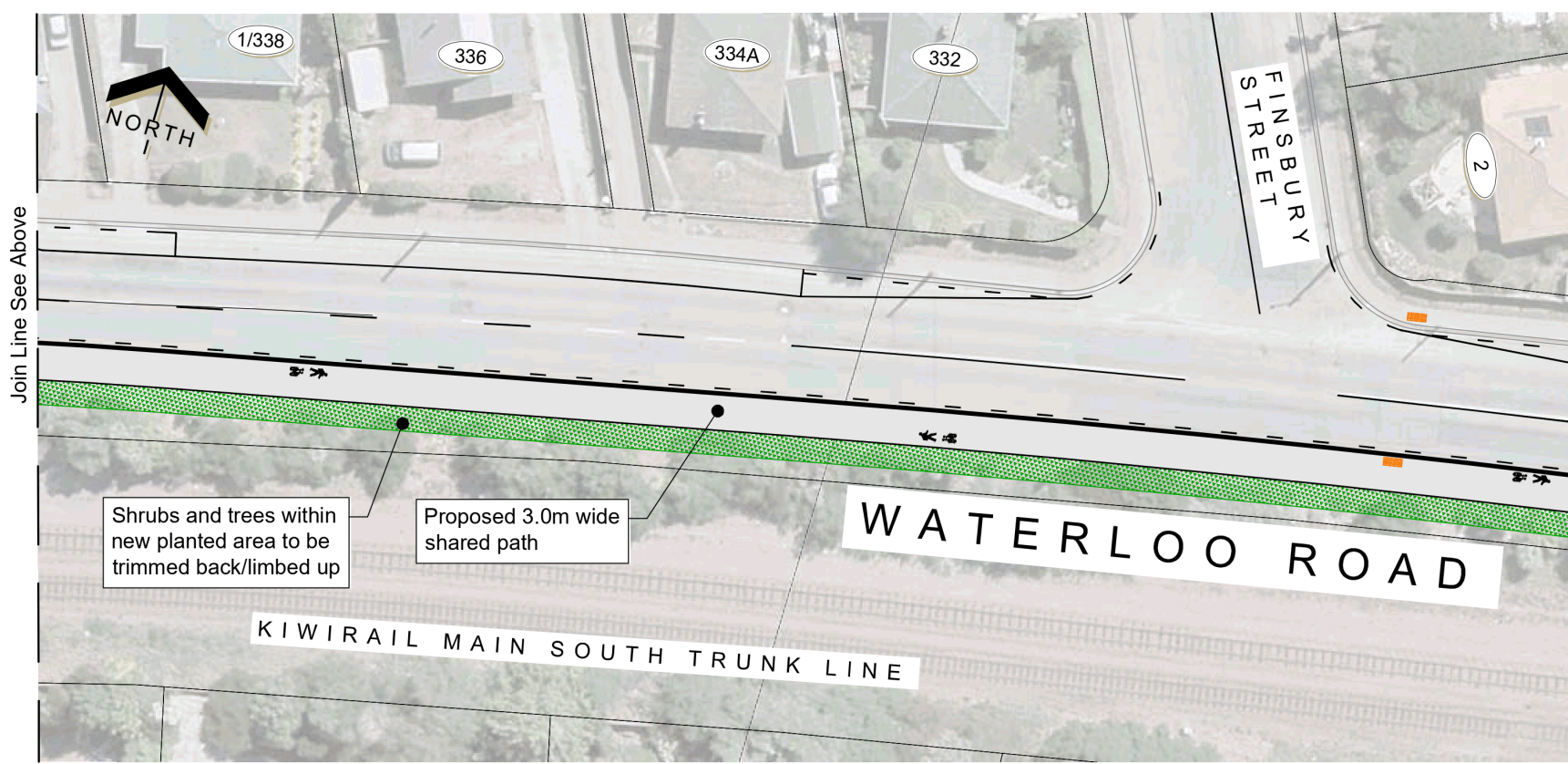
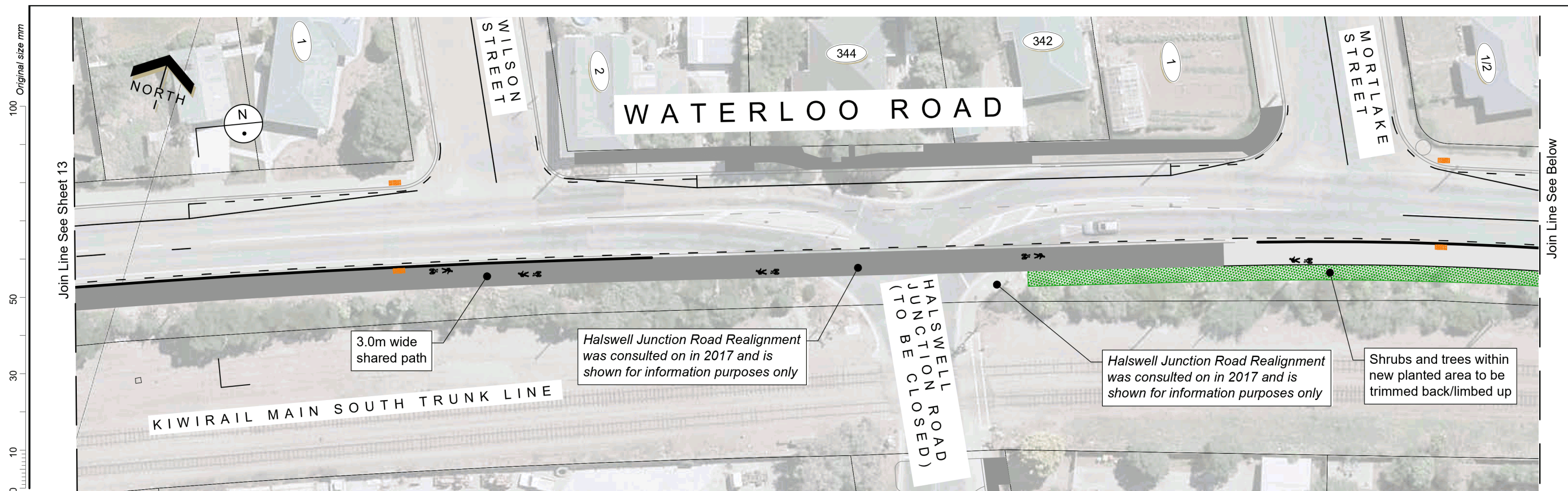


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Halswell Junction Road Realignment was consulted on in 2017 and is shown for information purposes only

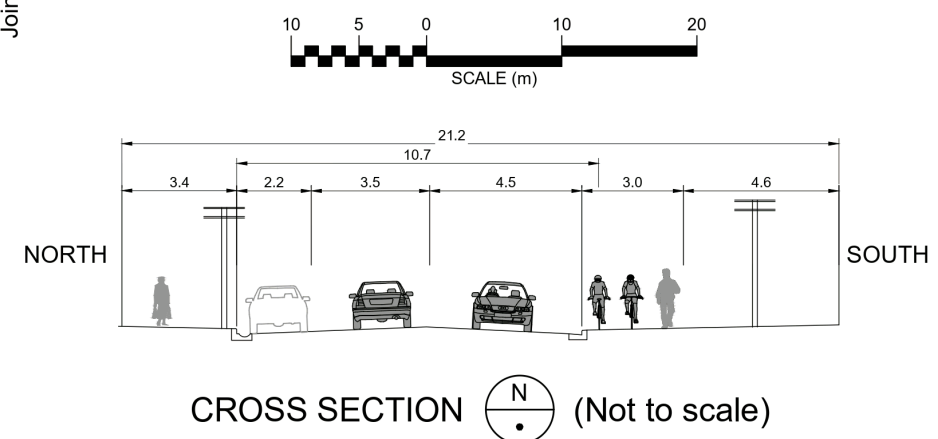
3.0m wide shared path

	<p>SOUTH EXPRESS Major Cycle Route - WATERLOO ROAD Scheme Design - For Approval</p>	<p>Original Plan Size: A3 ISSUE. 2 26/06/2019 SK 113</p>
Sheet 13 of 56		

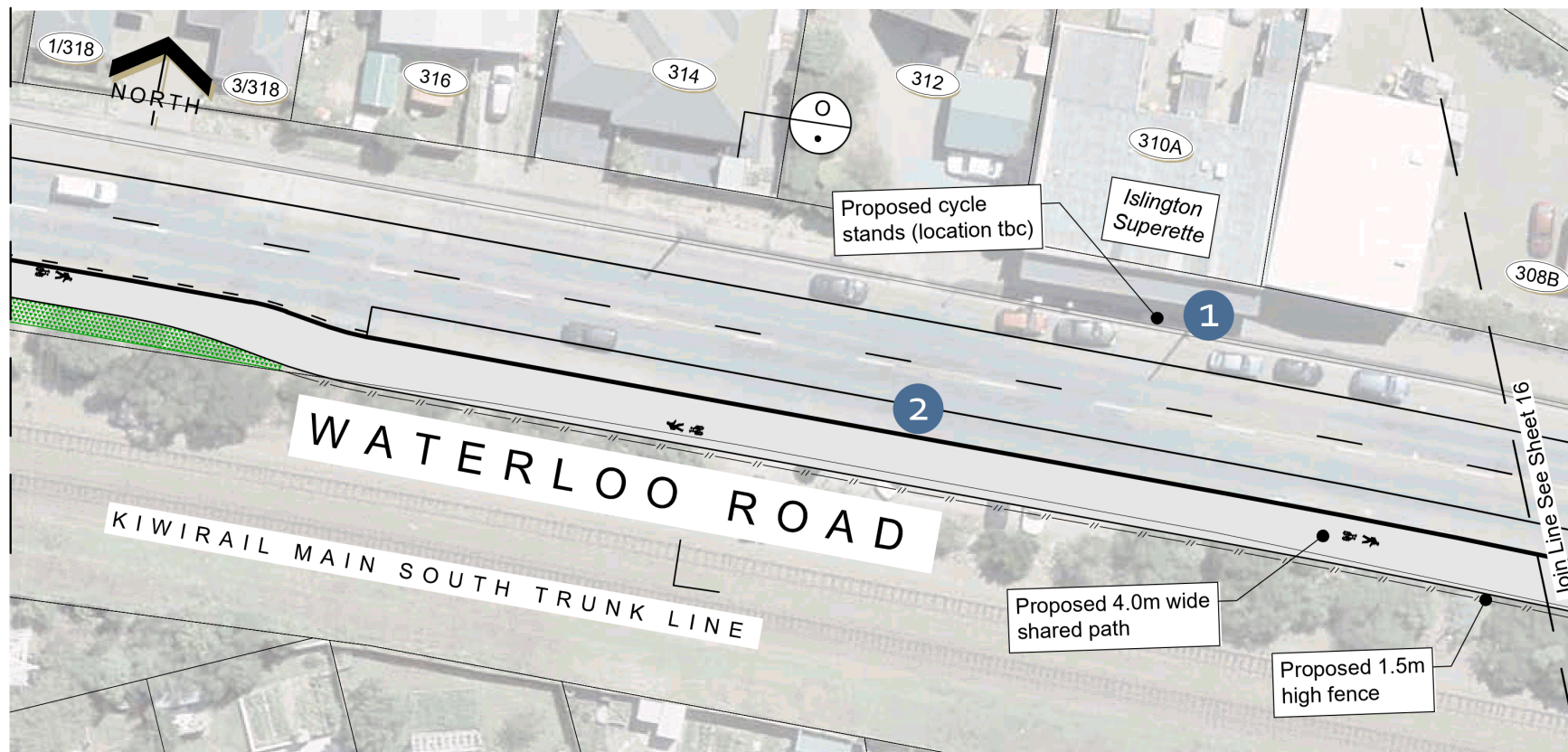
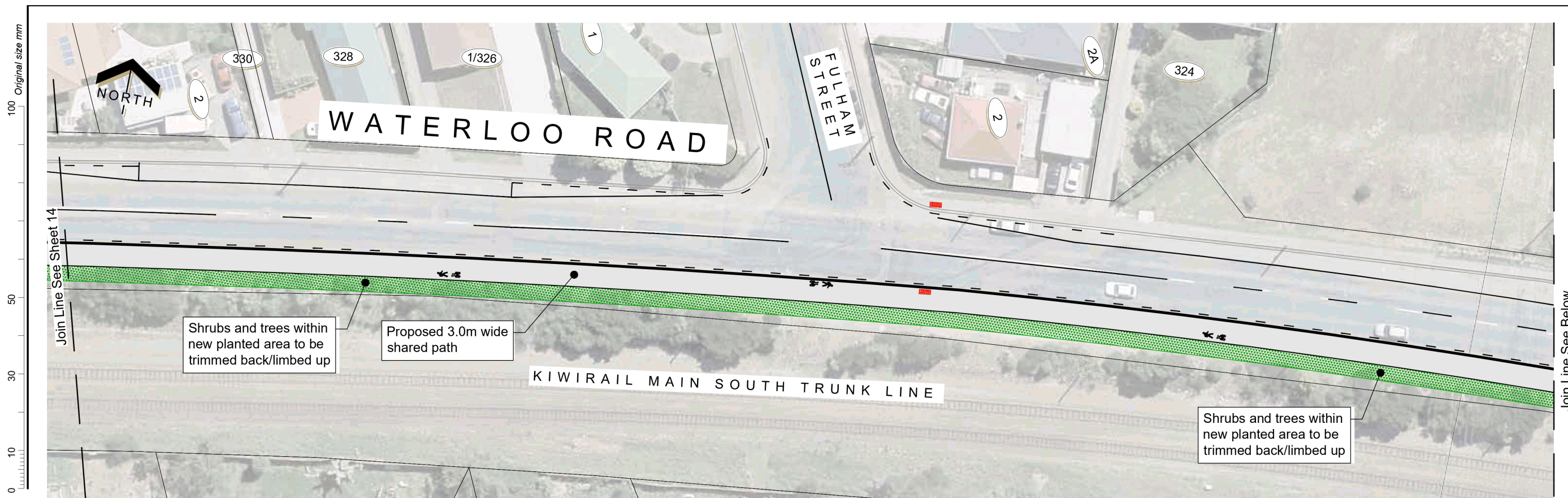


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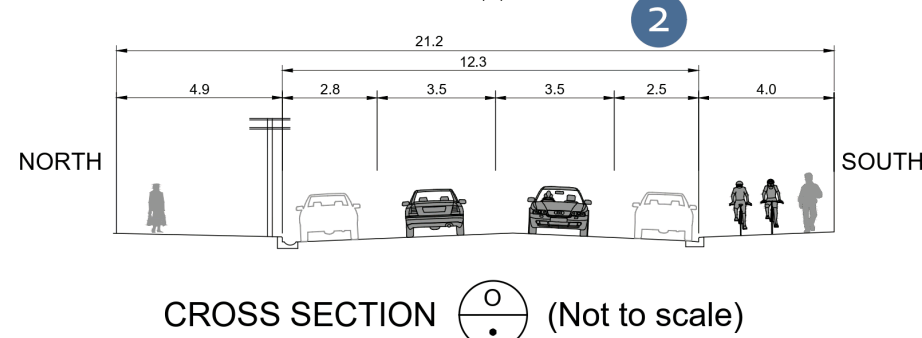


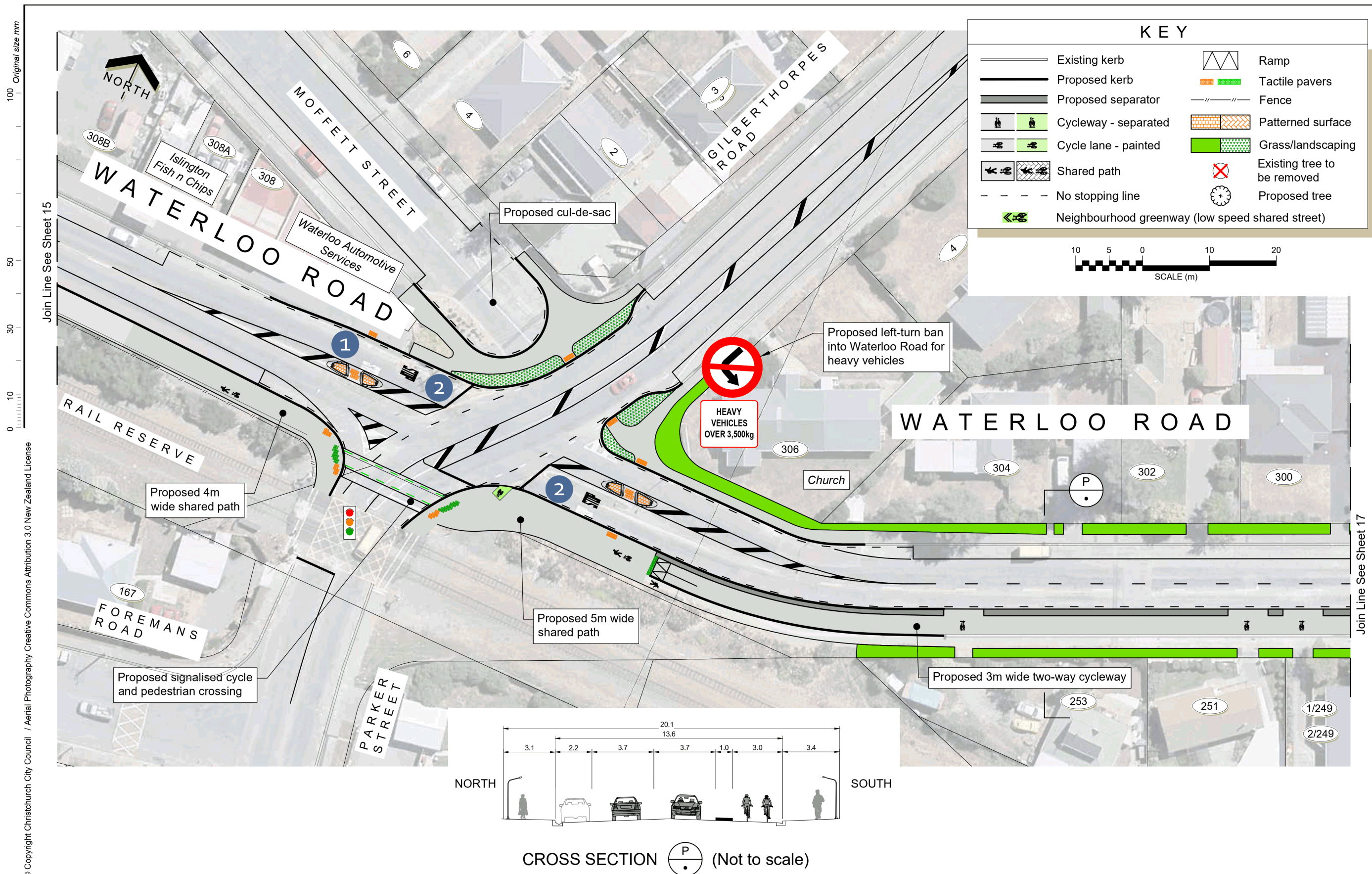
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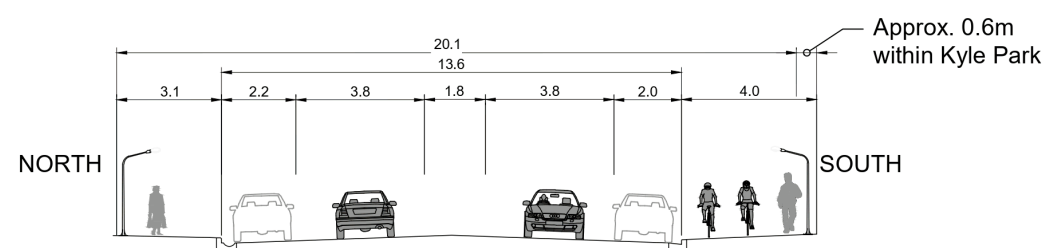
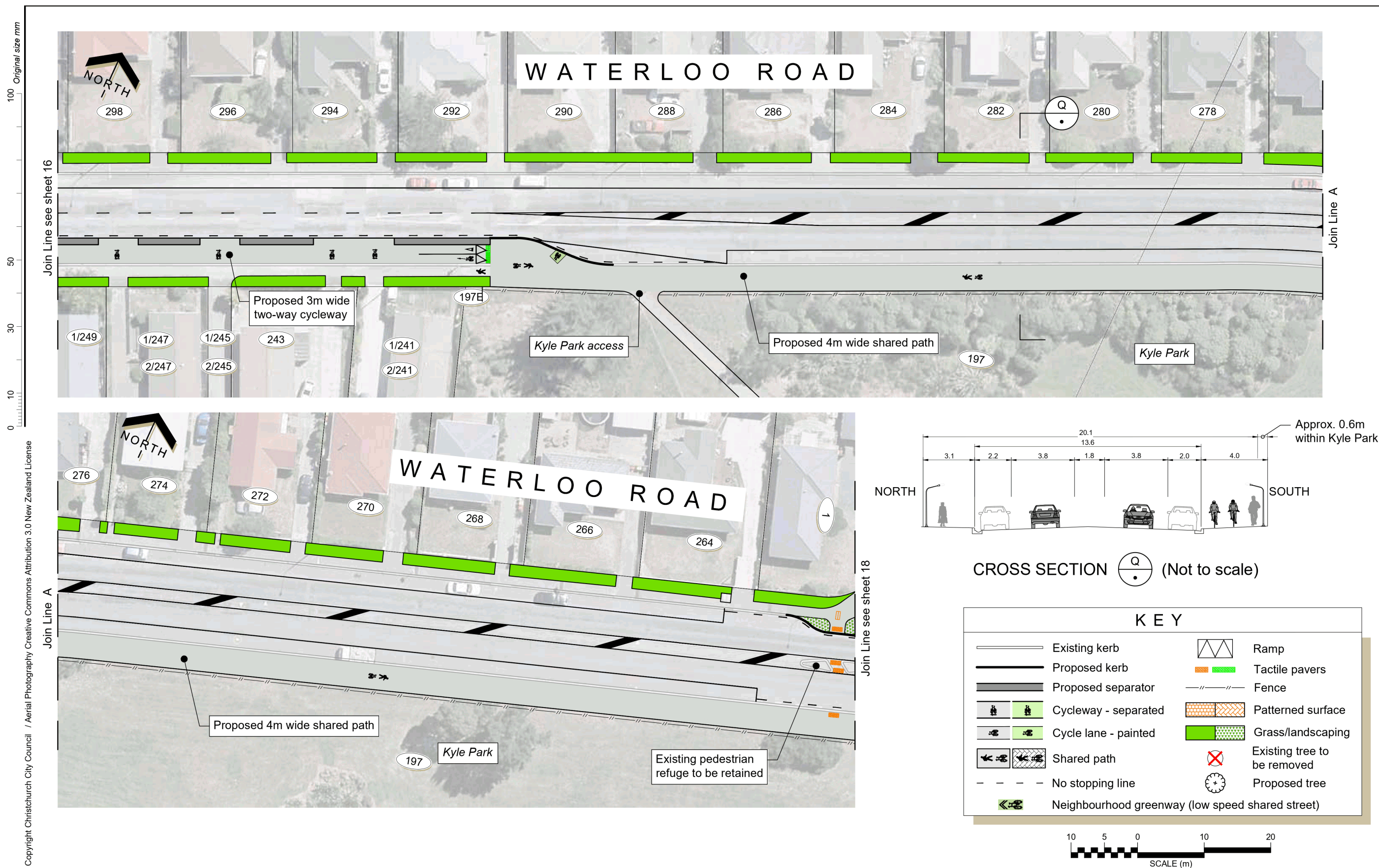
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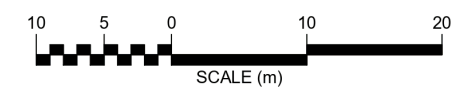


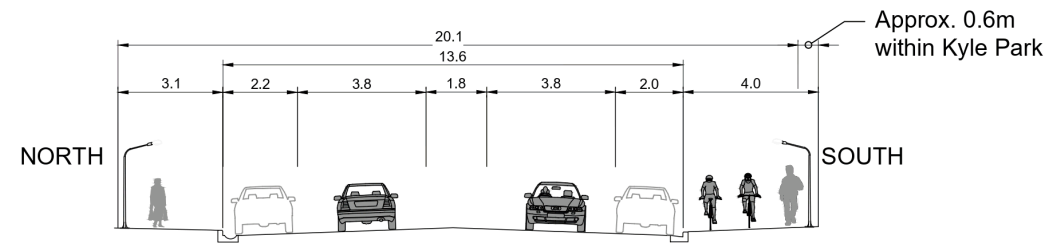
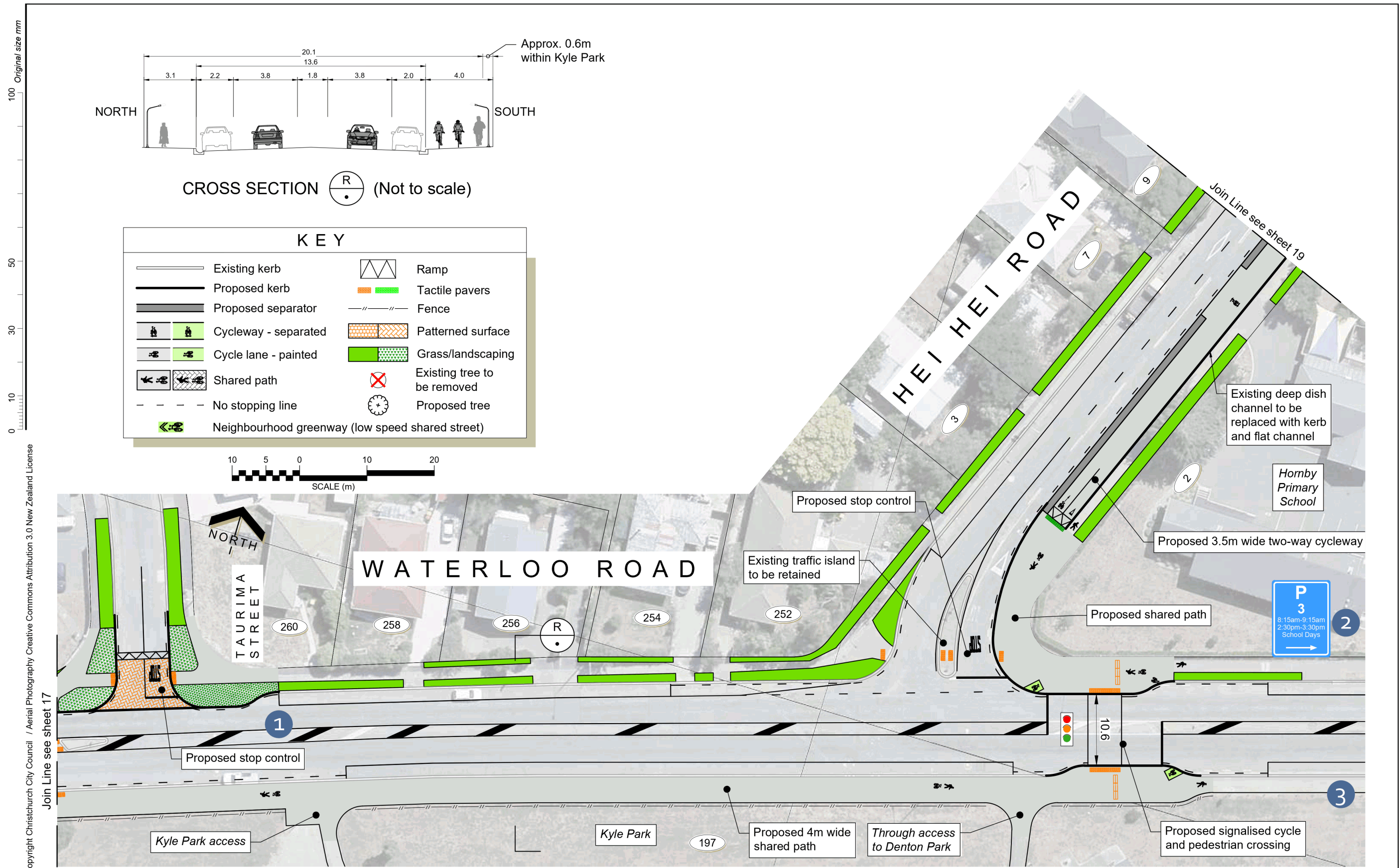
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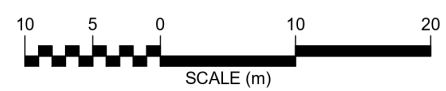
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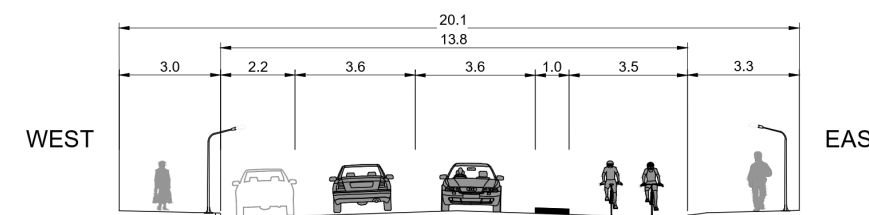
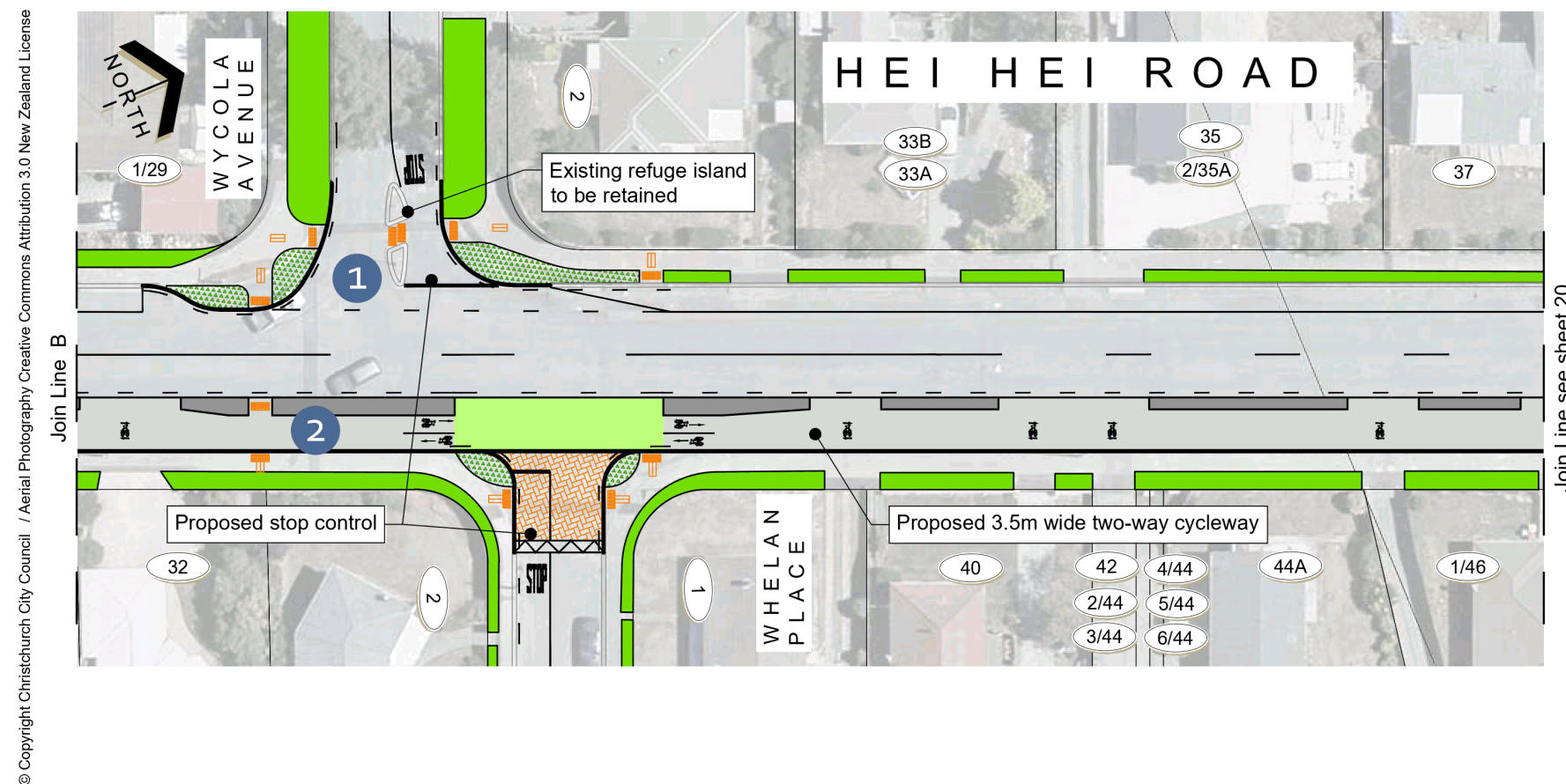
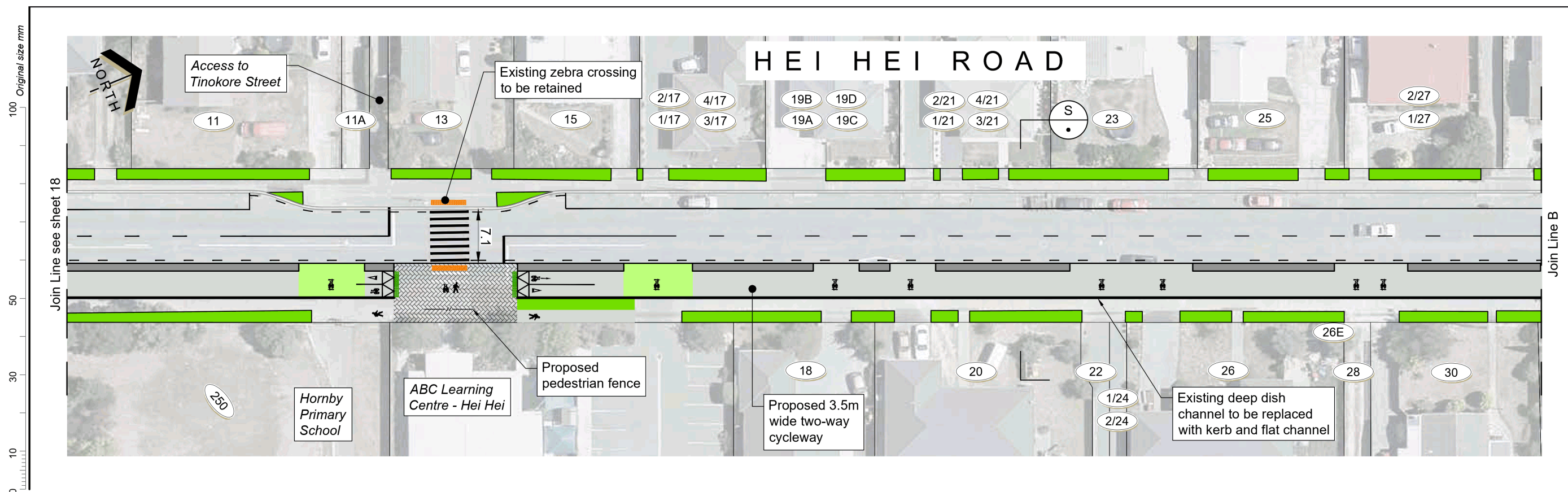


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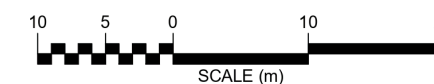
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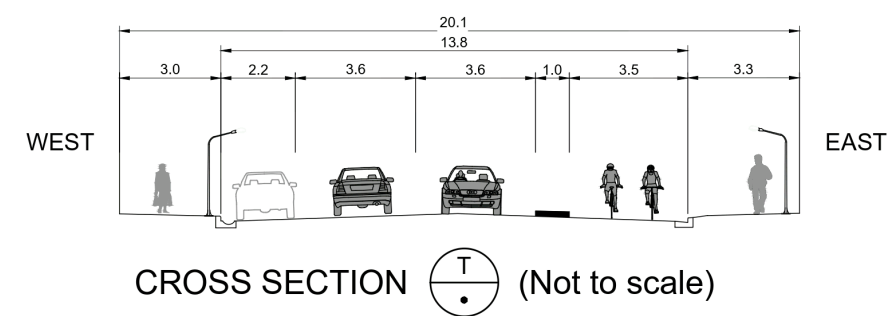
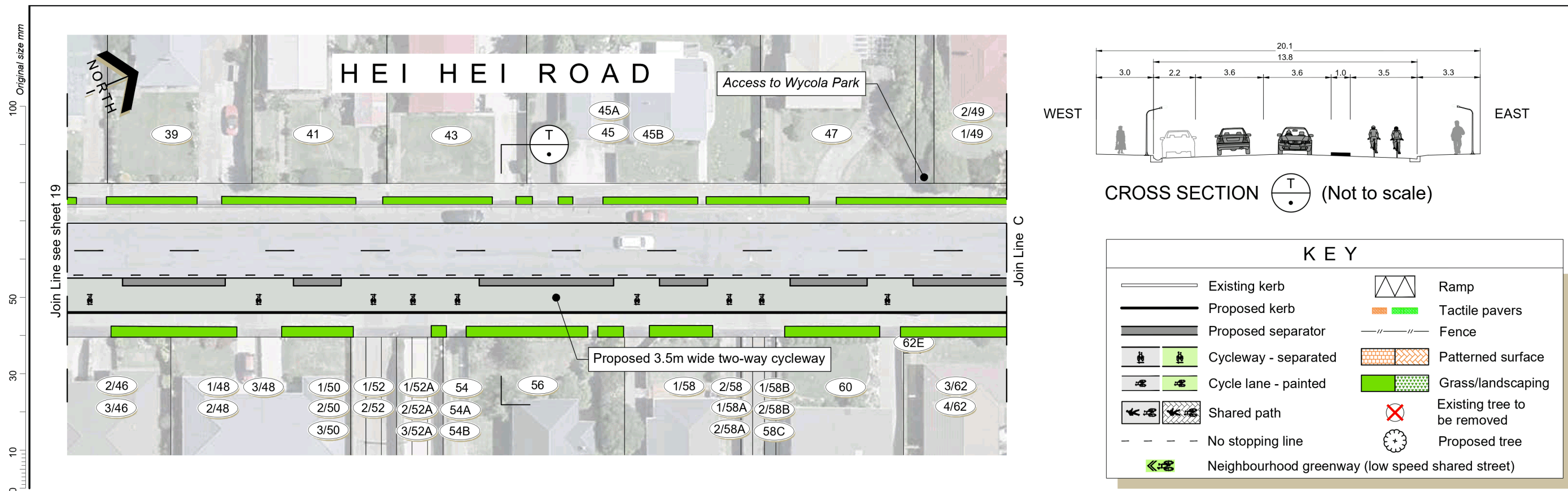


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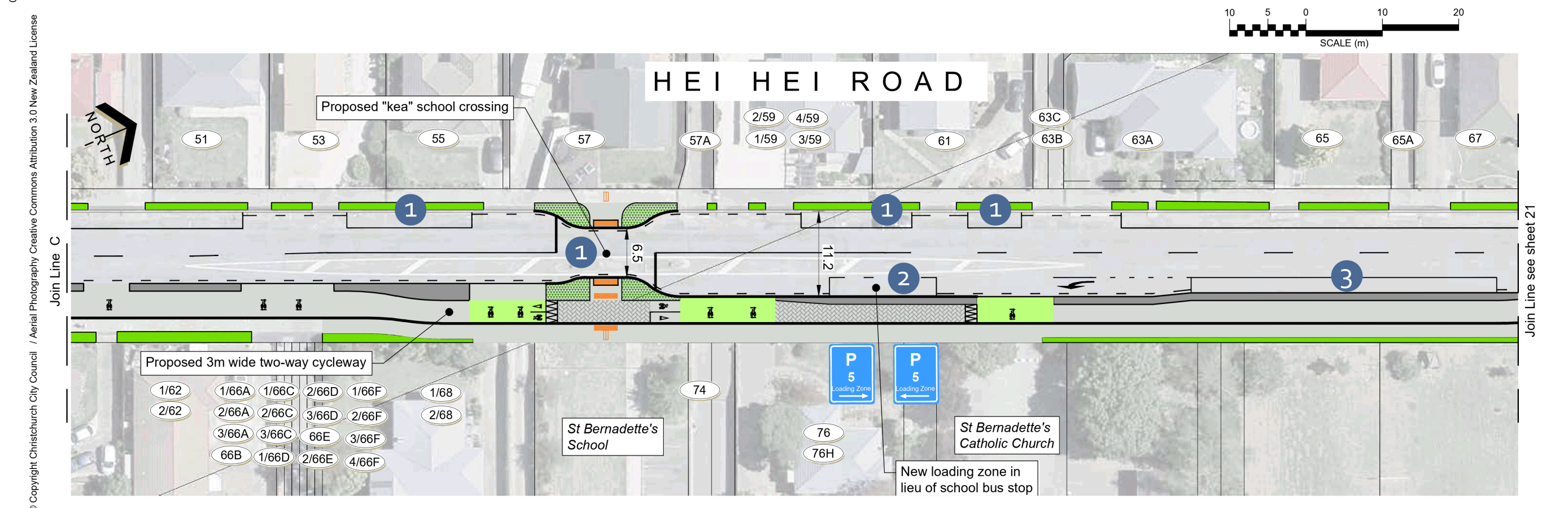
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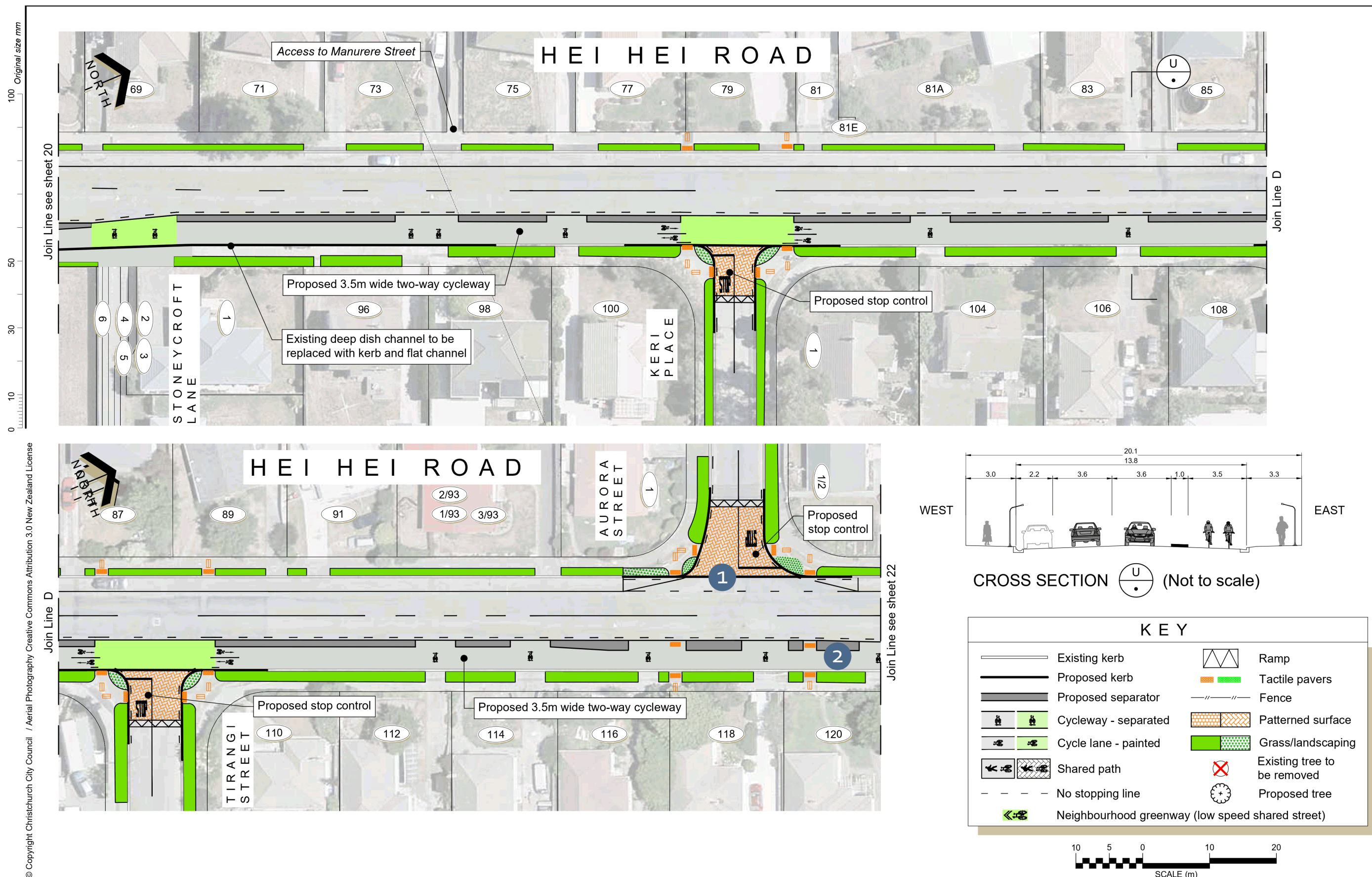
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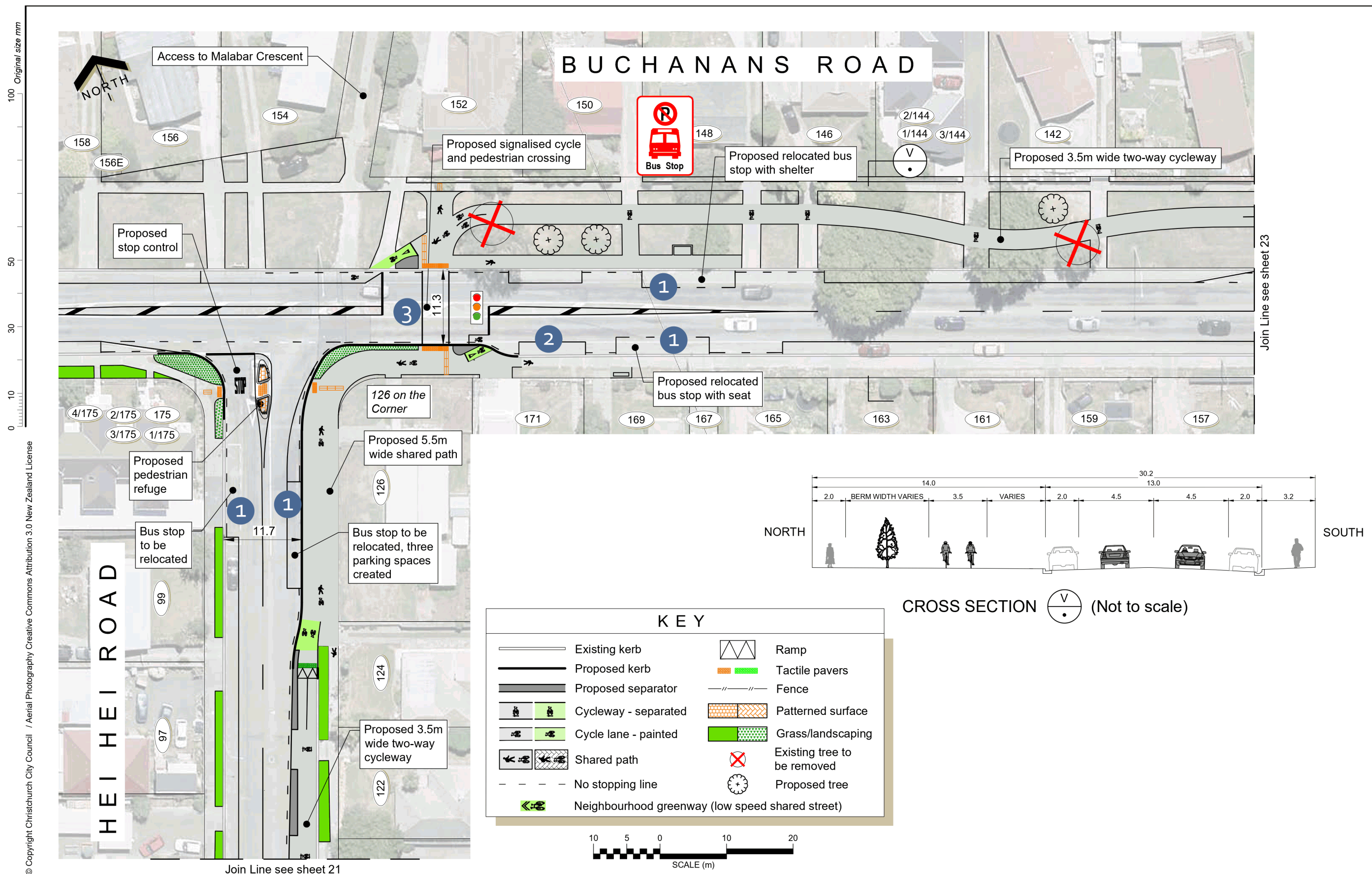


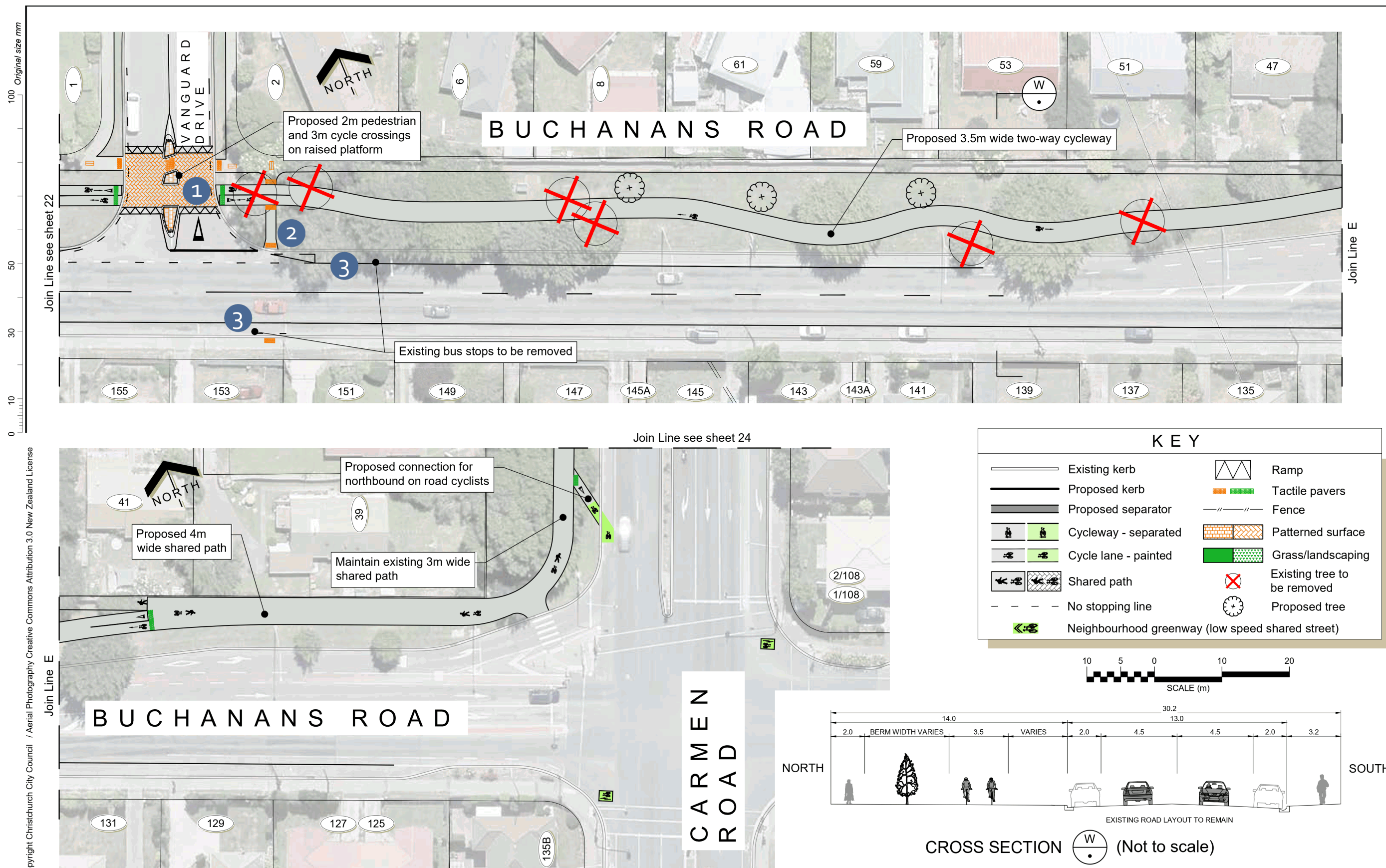
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	<p>SOUTH EXPRESS Major Cycle Route - HEI HEI ROAD Scheme Design - For Approval</p>	<p>Original Plan Size: A3 ISSUE. 2 26/06/2019 SK120</p>
<p>Sheet 20 of 56</p>		

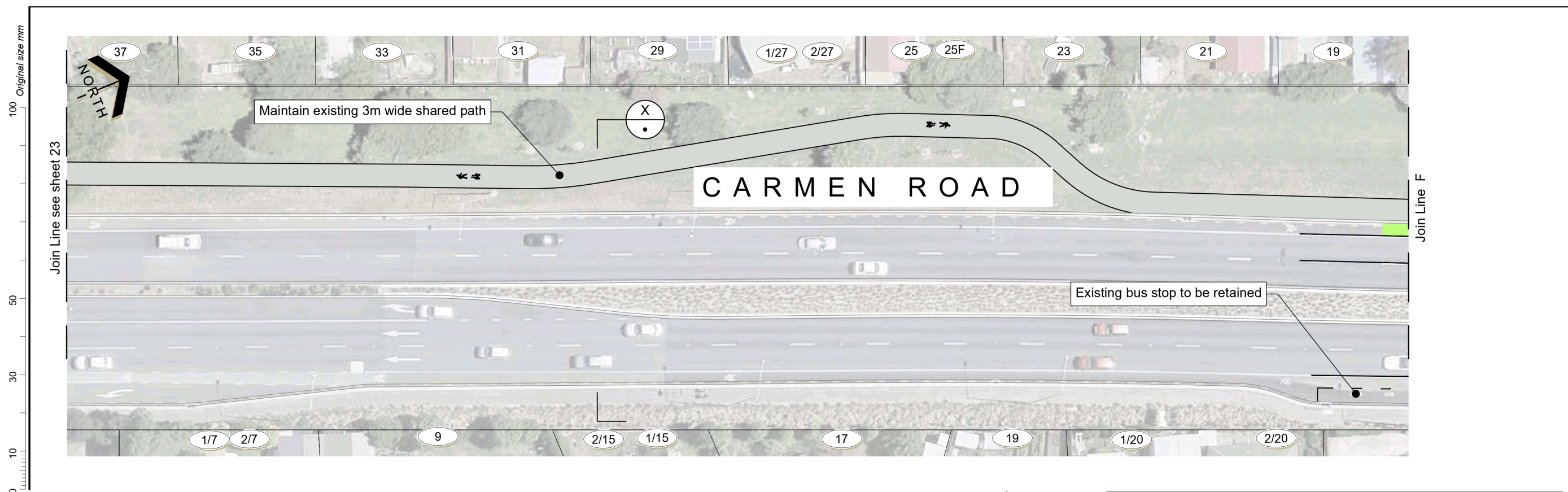


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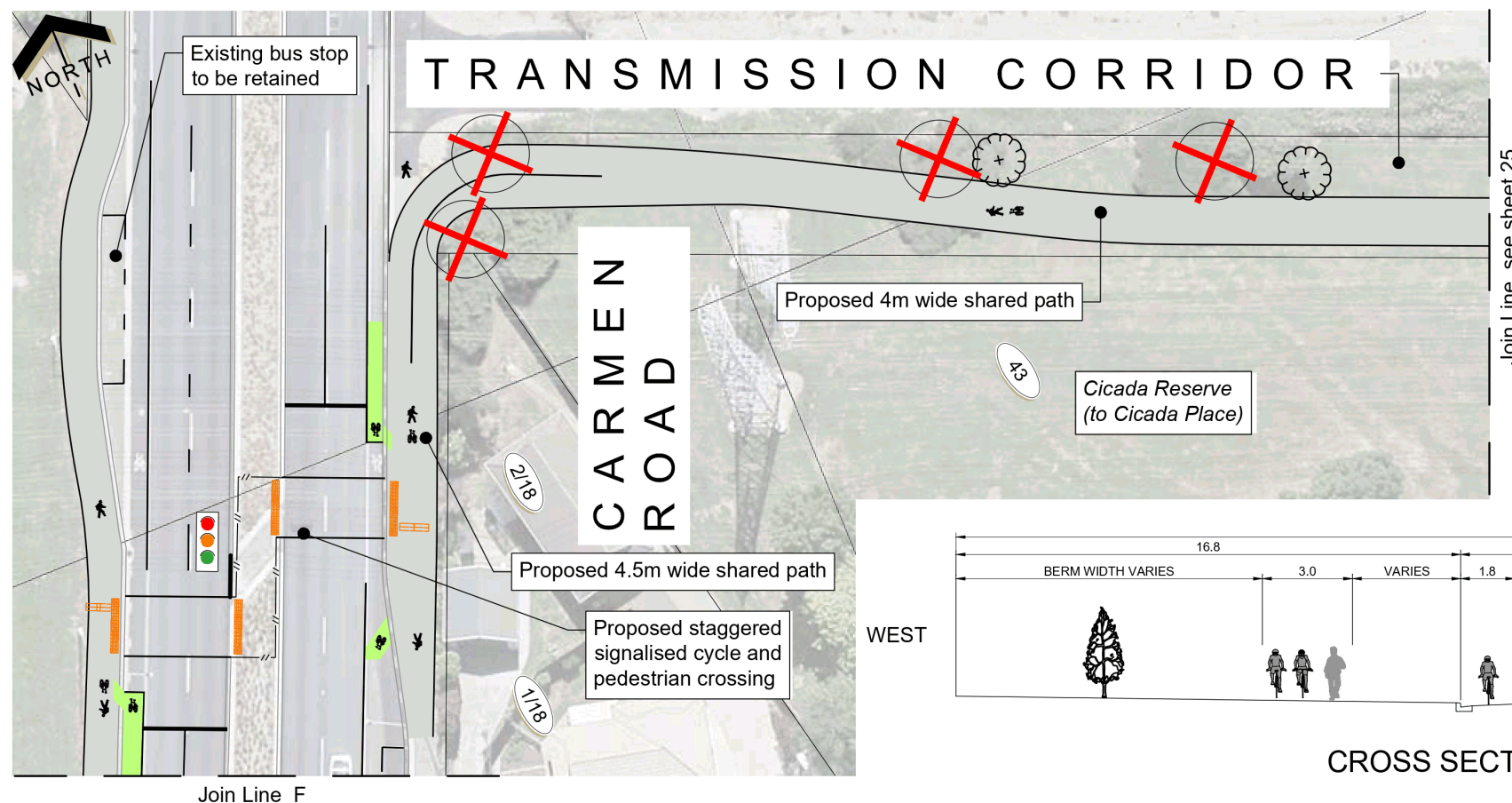




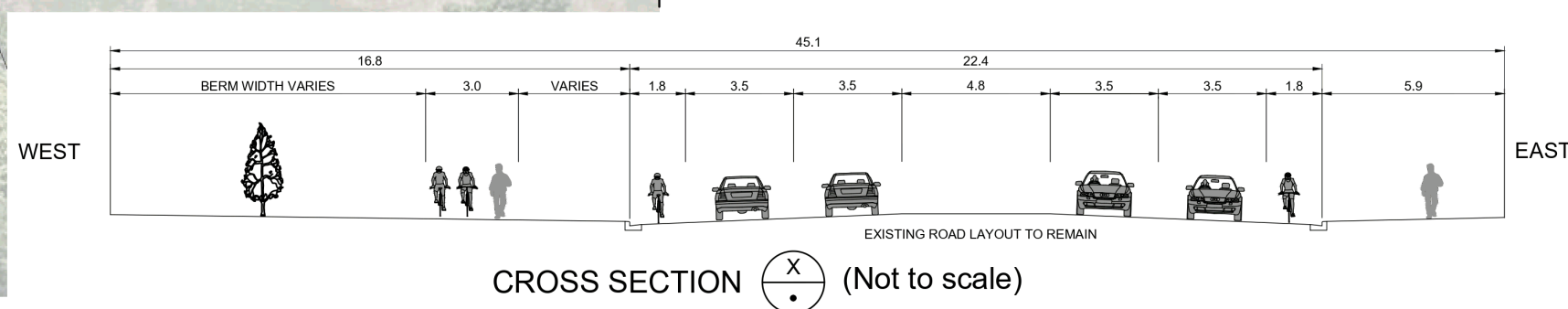
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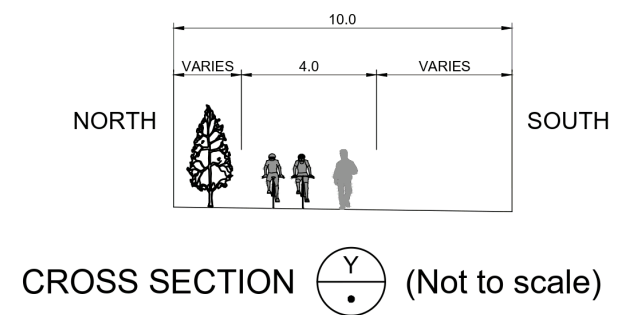
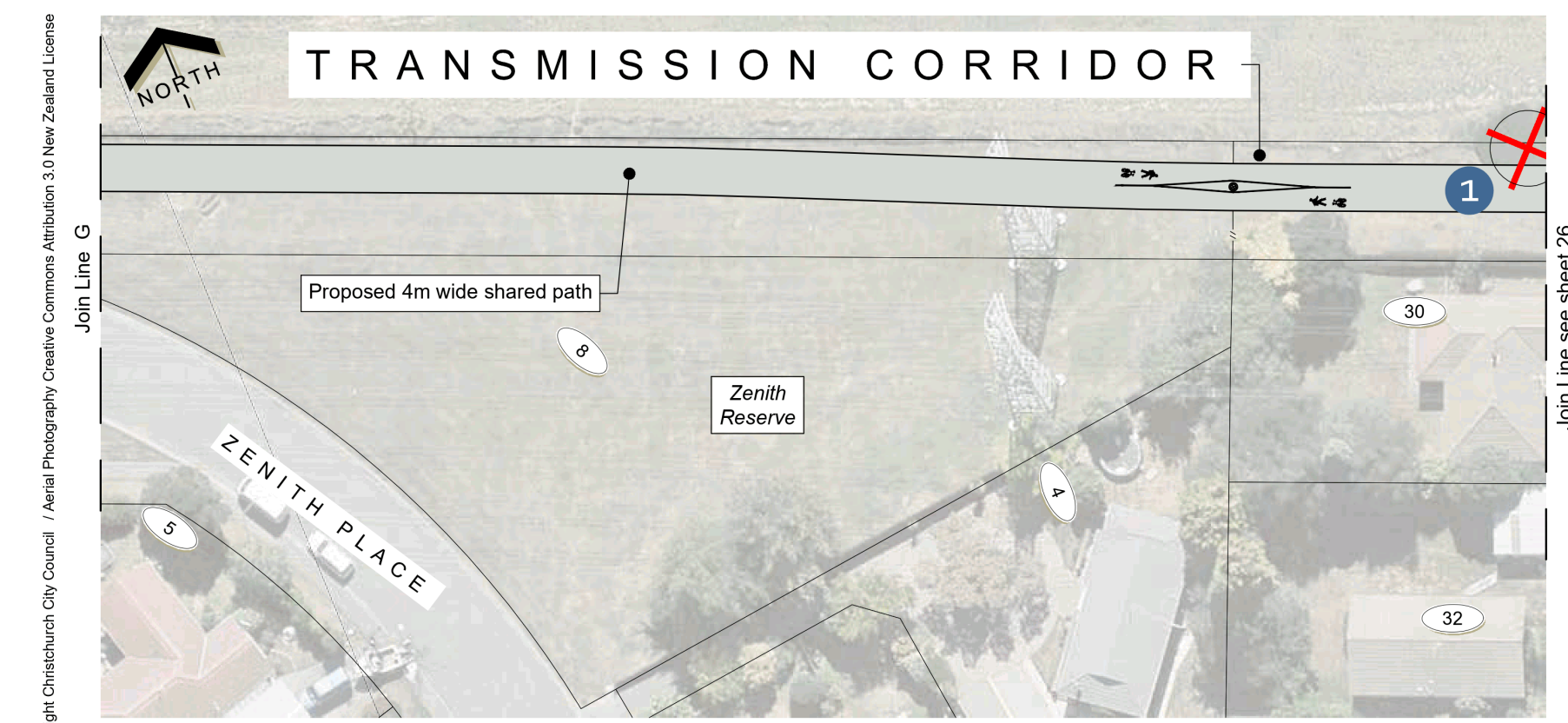
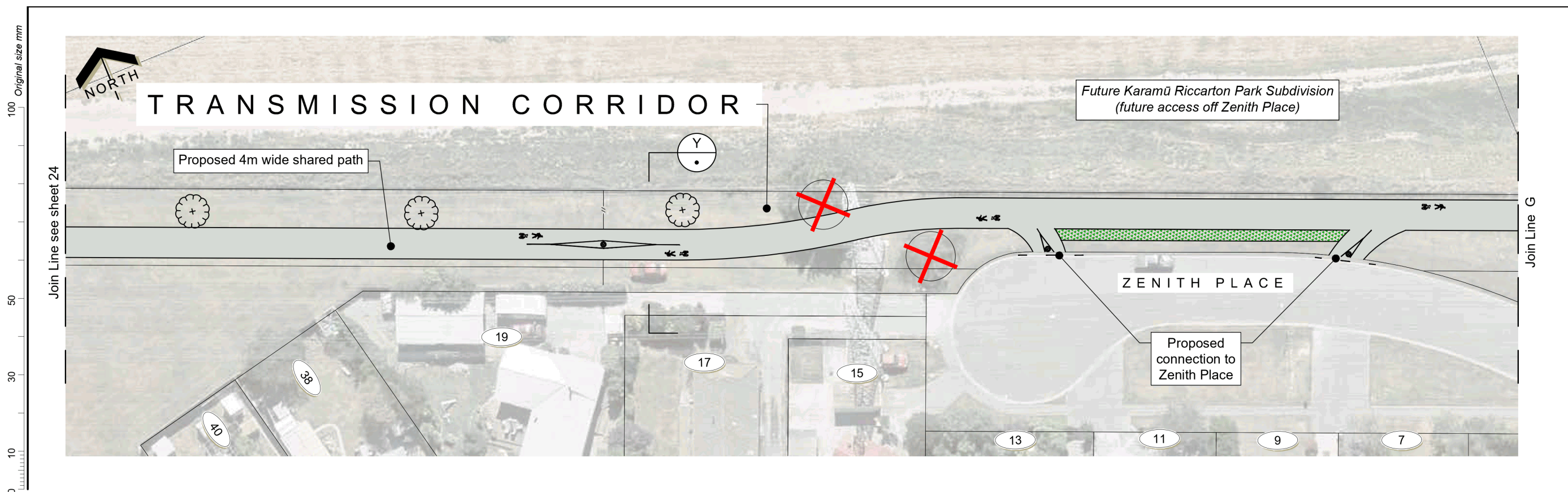


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KEY			
	Existing kerb		Ramp
	Proposed kerb		Tactile pavers
	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		



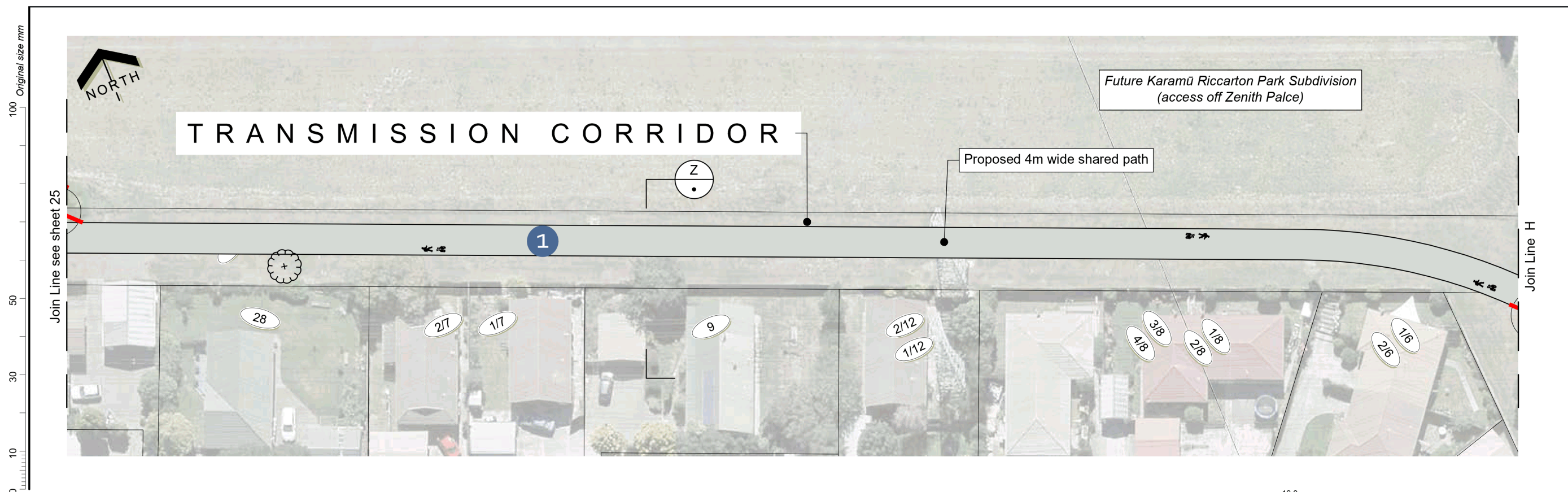


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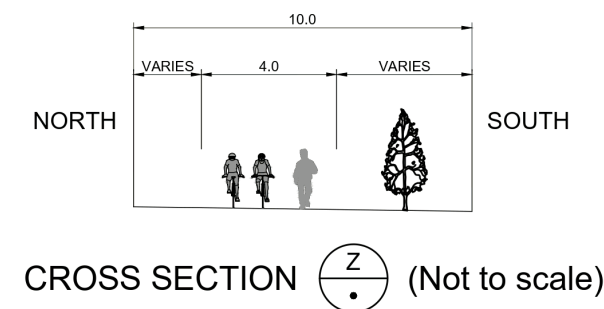
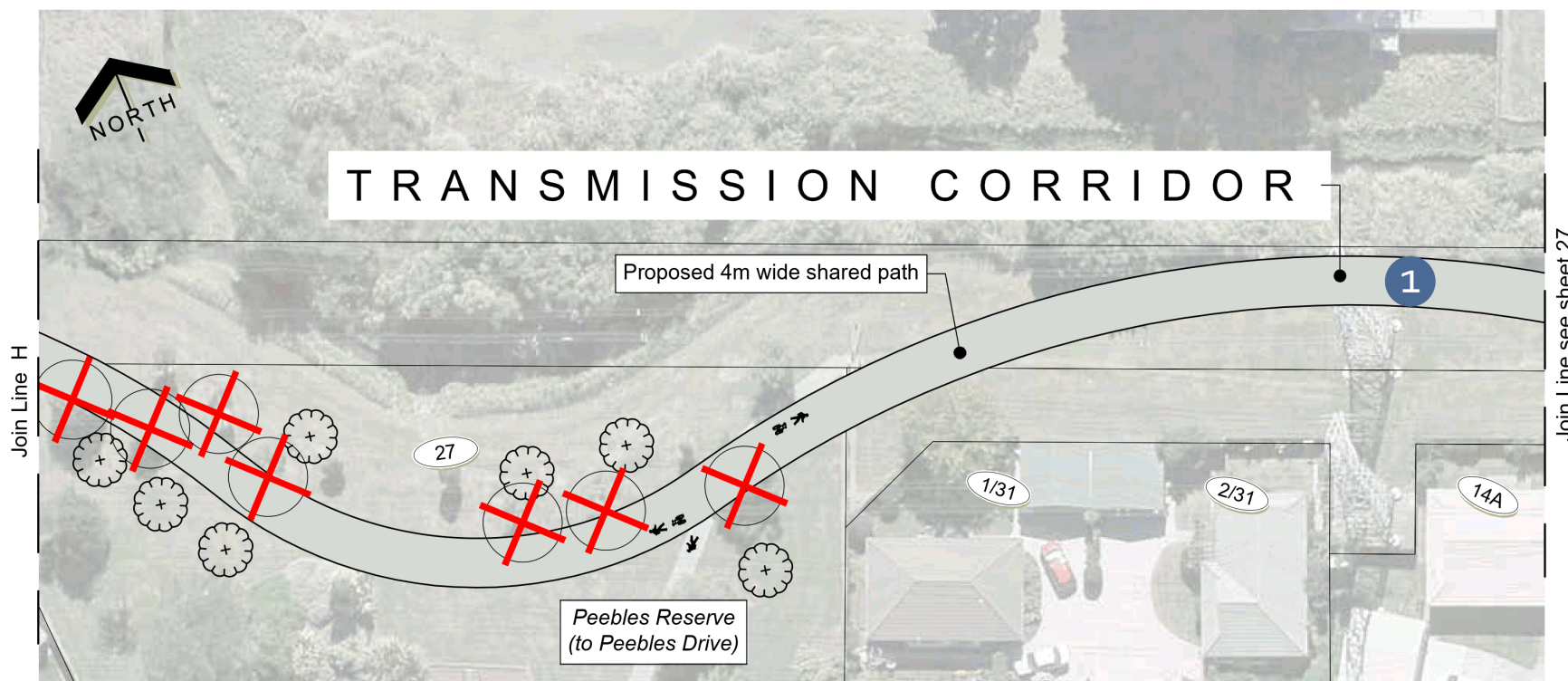
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	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		



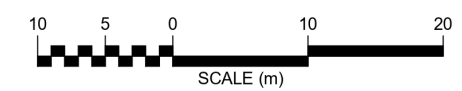
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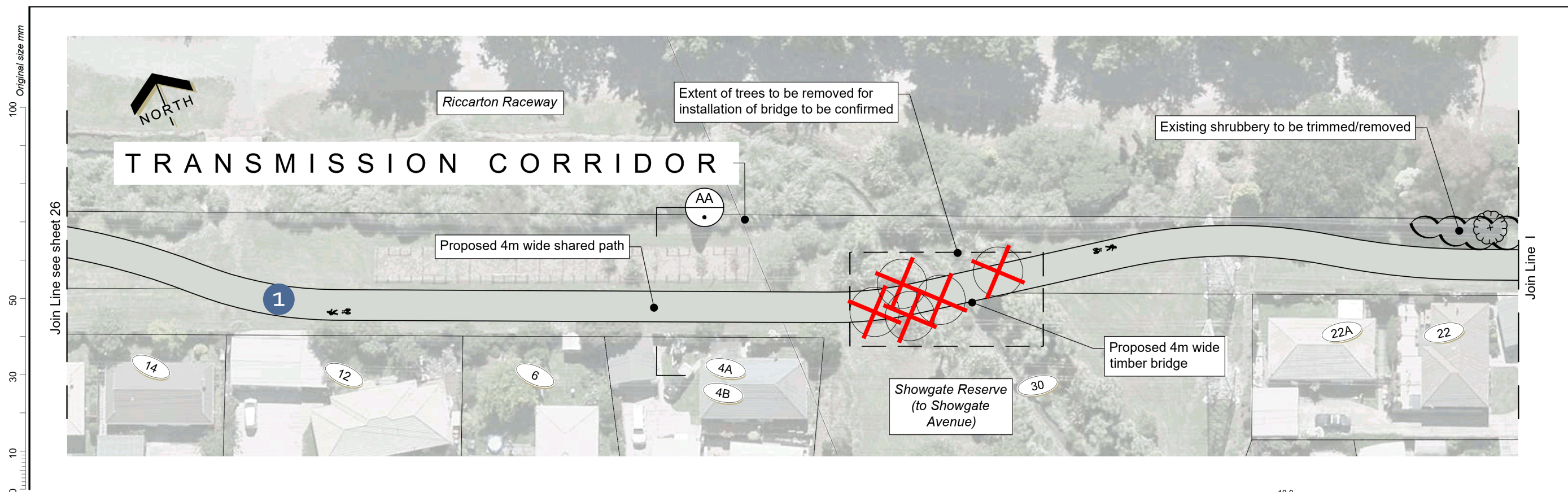


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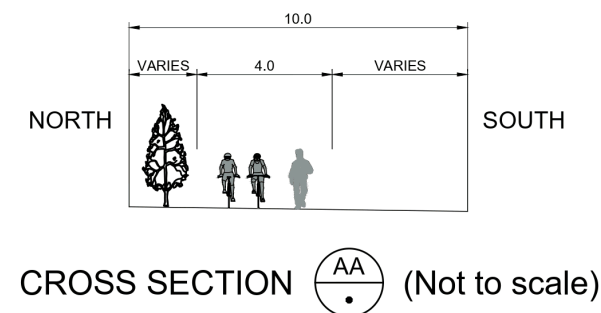
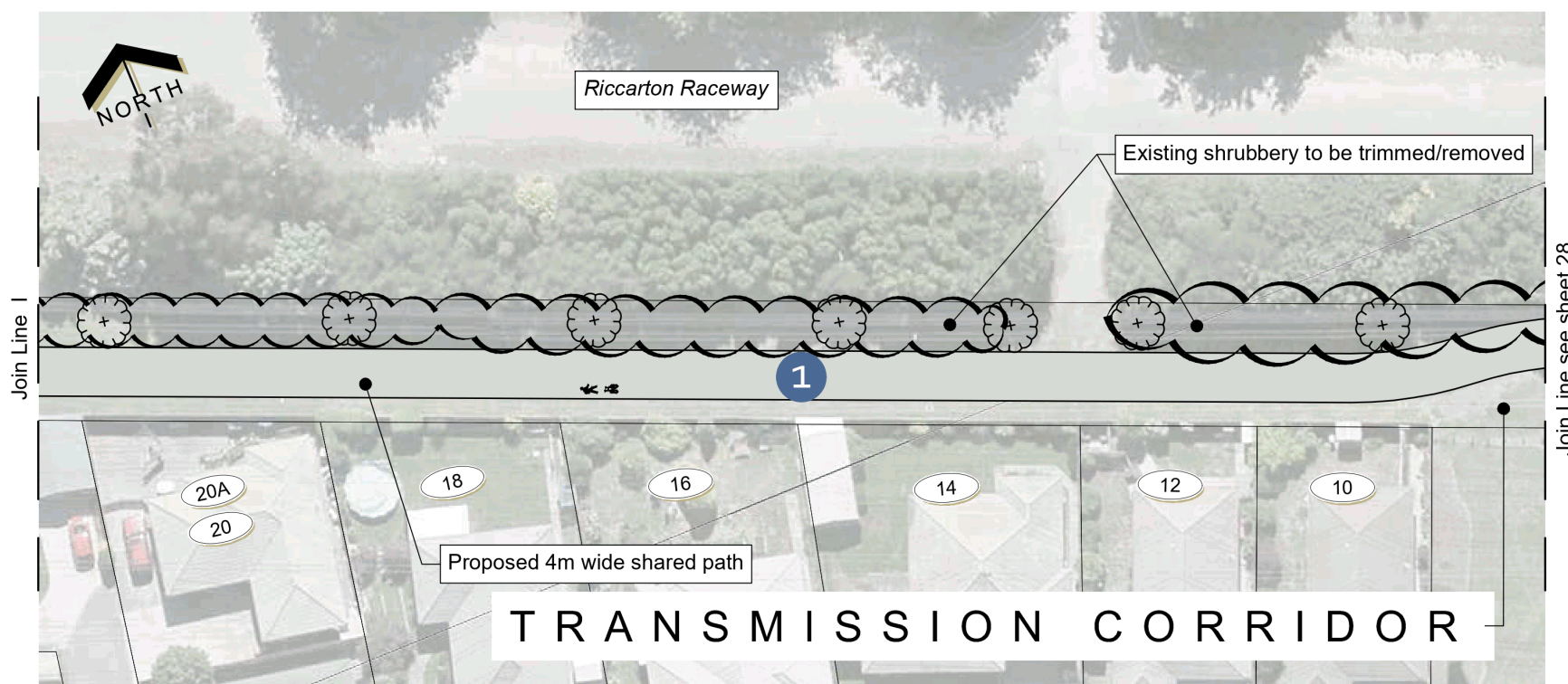


KEY			
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	Proposed kerb		Tactile pavers
	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		

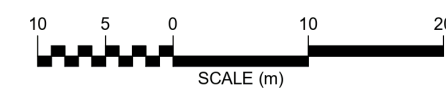


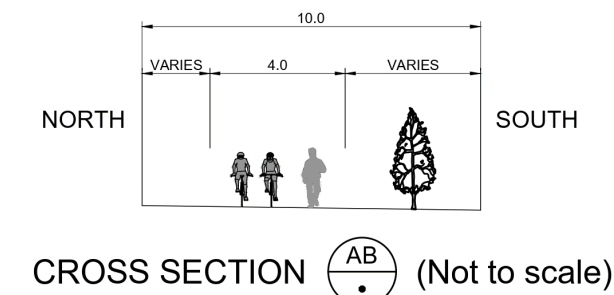
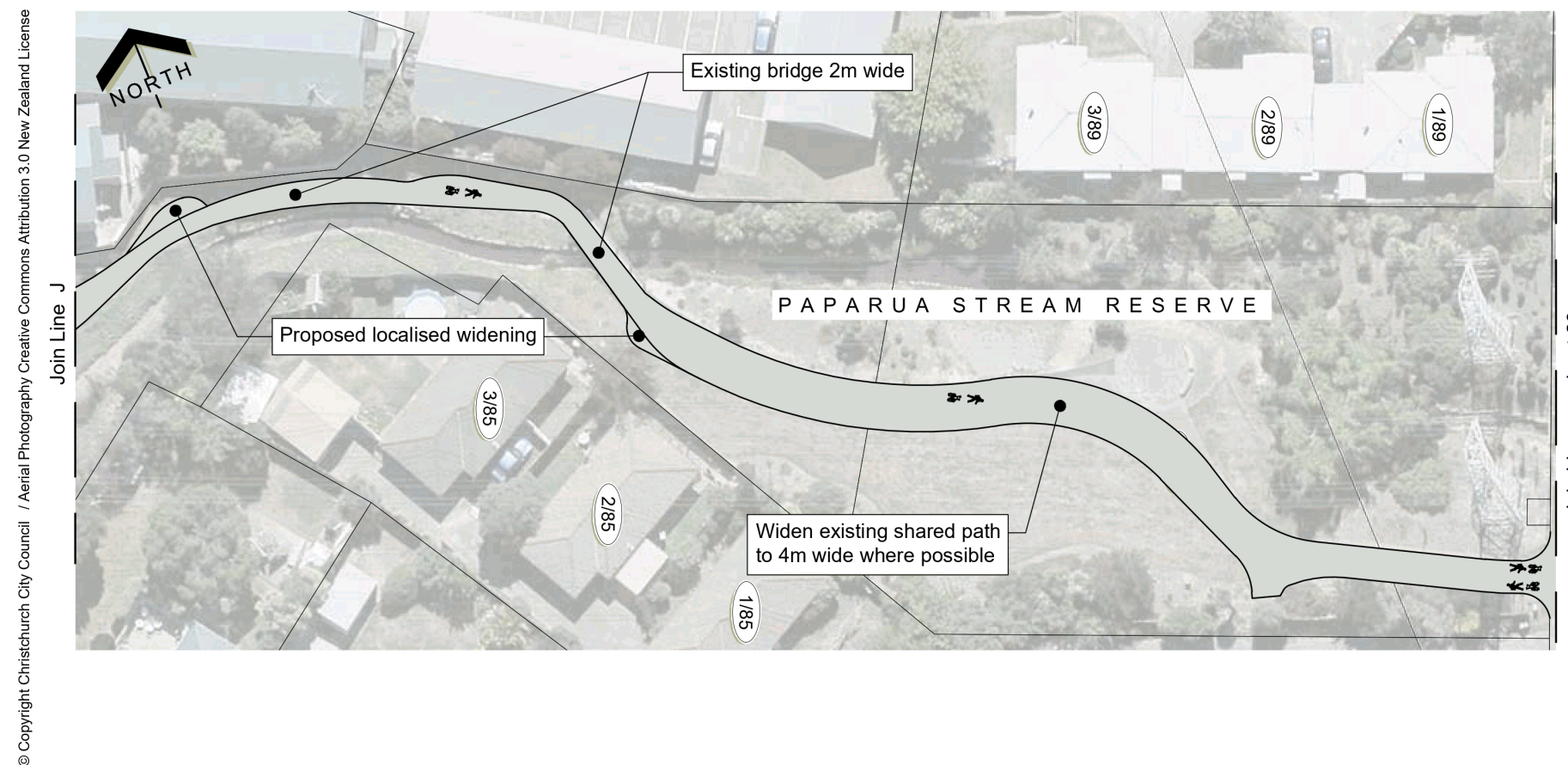
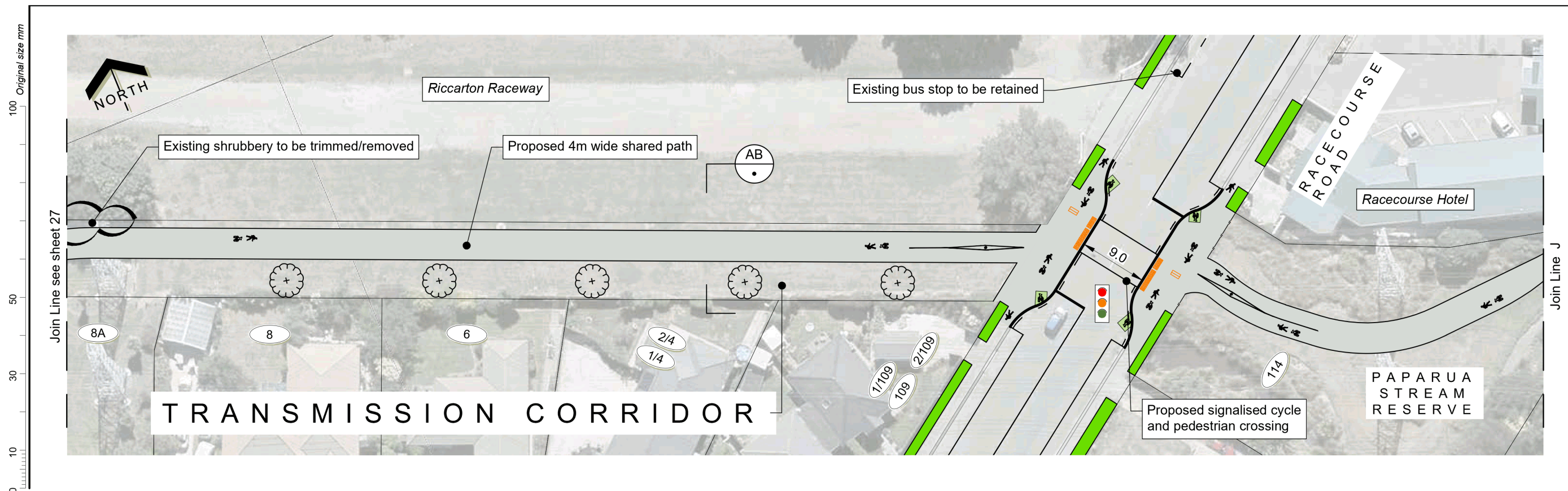


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KEY			
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	Proposed kerb		Tactile pavers
	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		

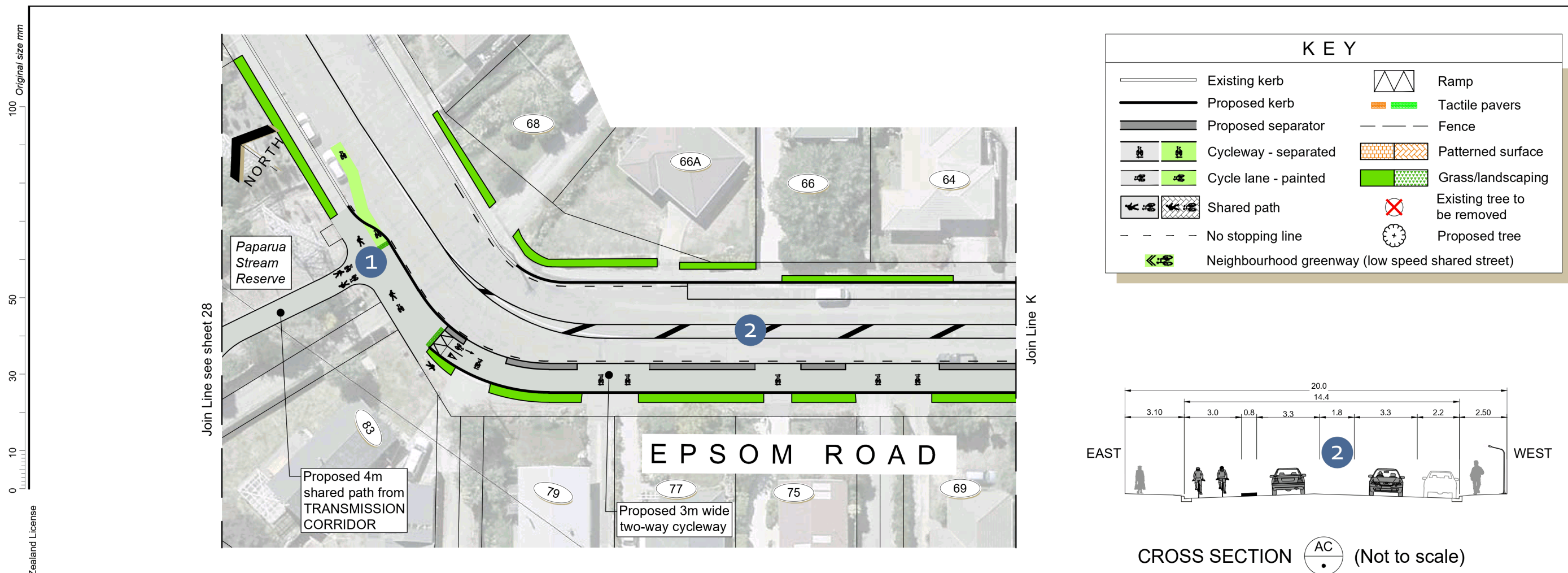




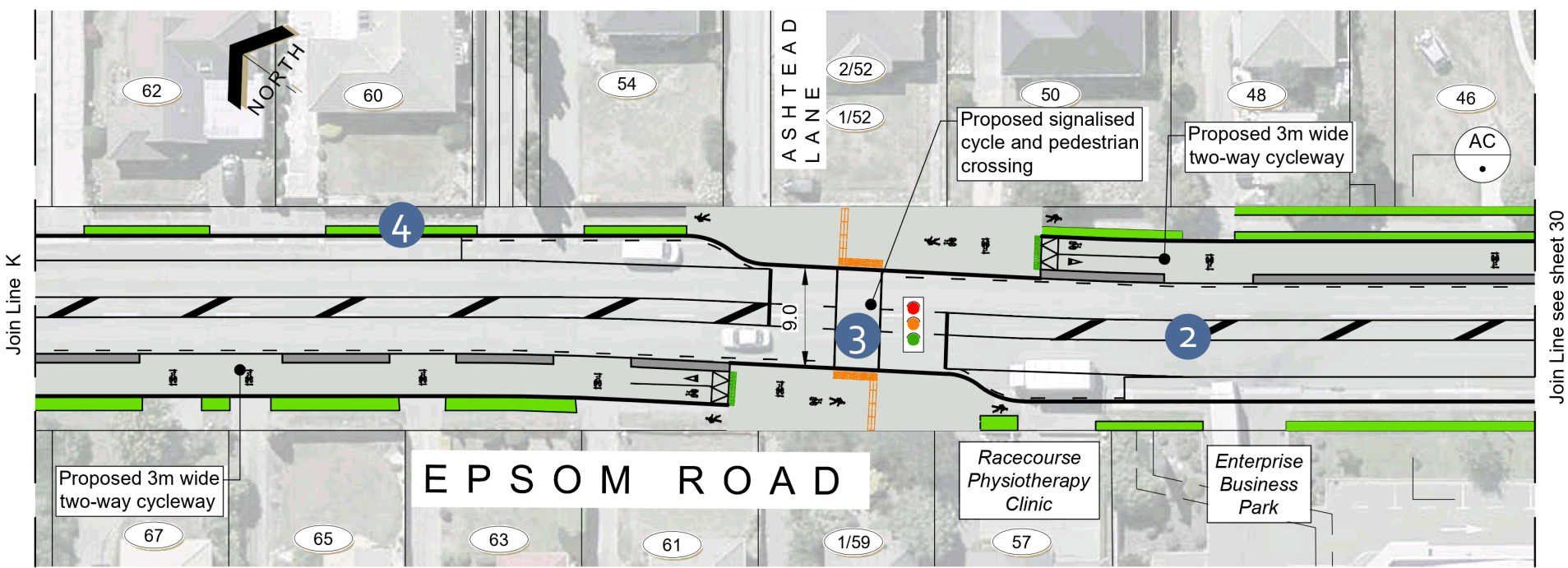
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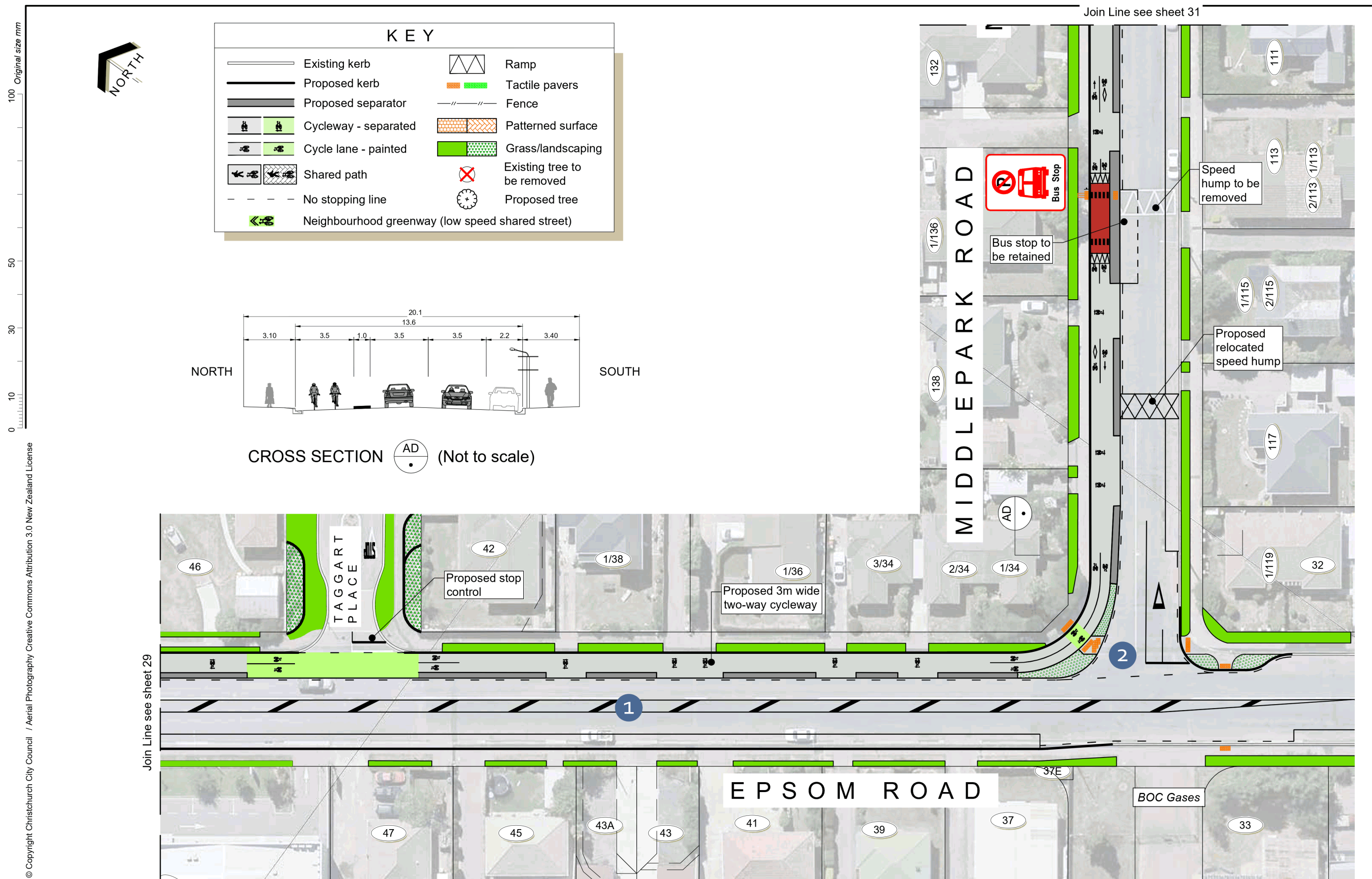
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	Proposed separator		Fence
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	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		





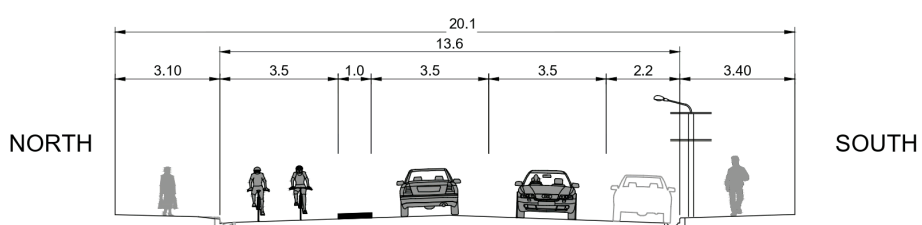
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KEY

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	Proposed kerb		Tactile pavers
	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		



CROSS SECTION (Not to scale)

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Join Line see sheet 31

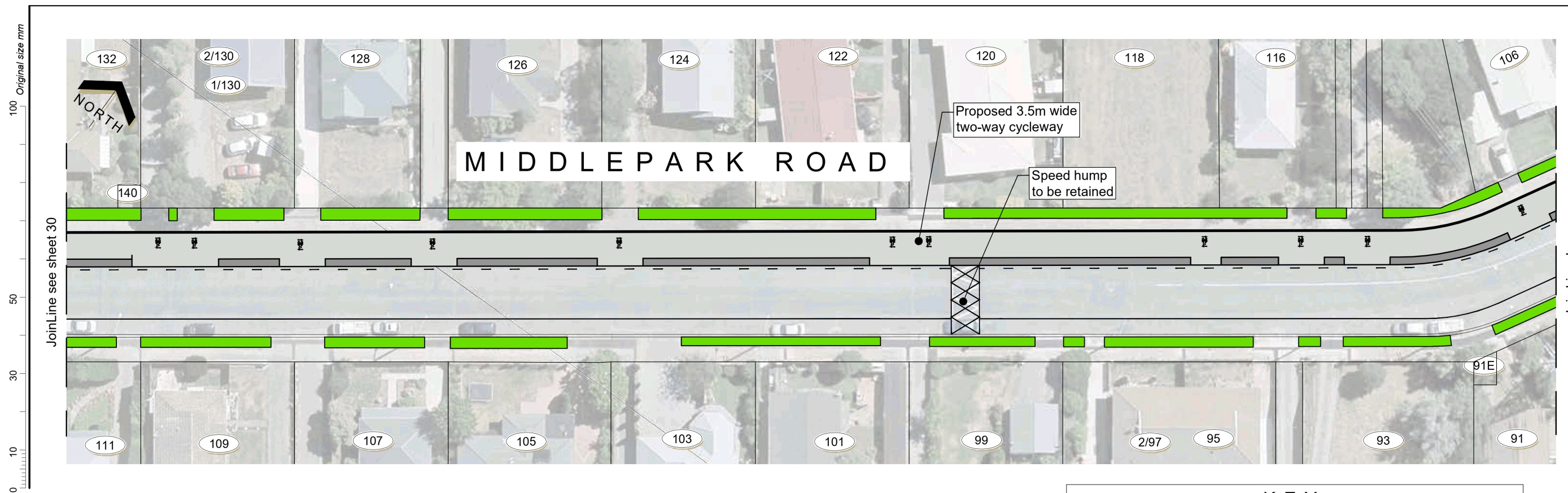
Join Line see sheet 29



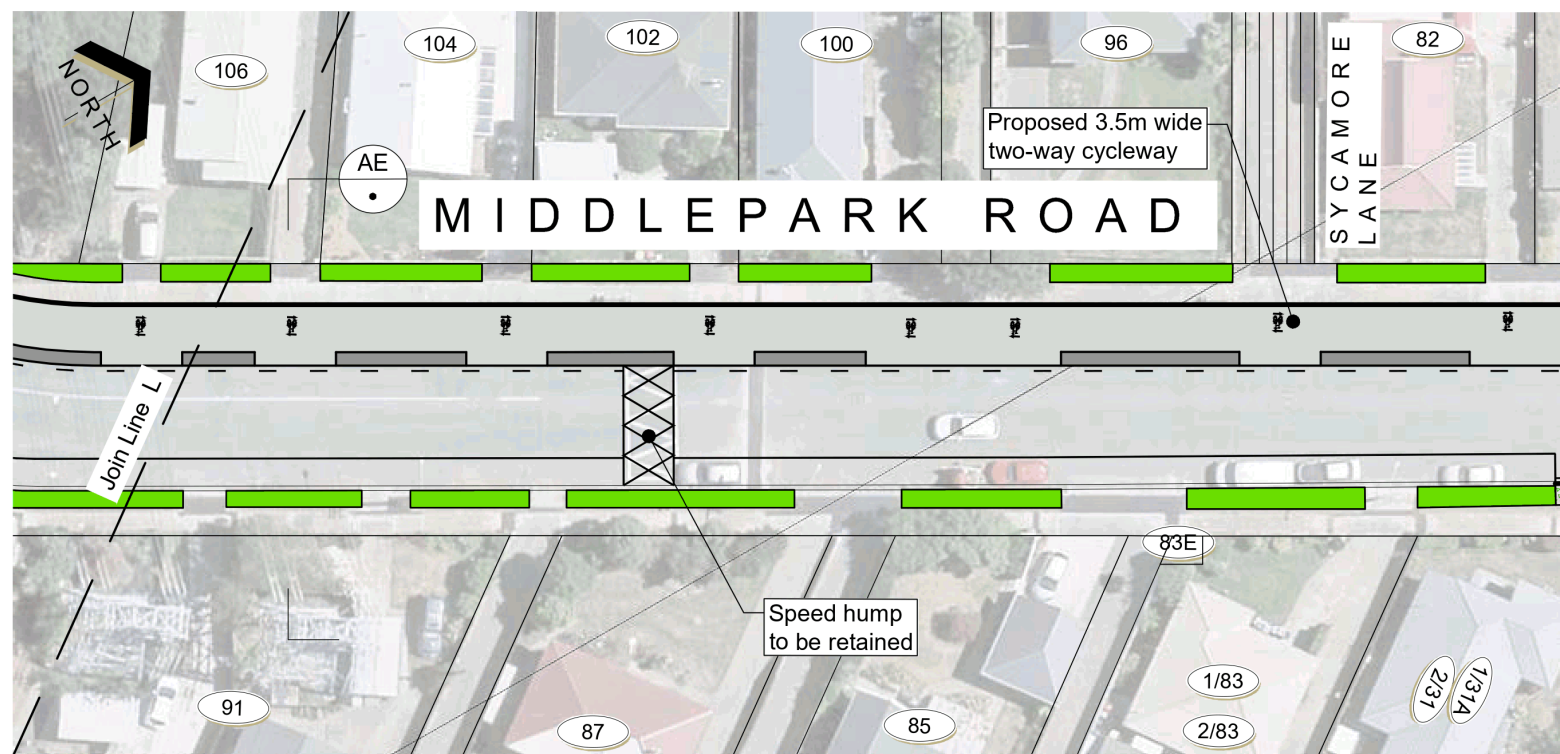
SOUTH EXPRESS
Major Cycle Route - EPSOM ROAD AND MIDDLEPARK ROAD INTERSECTION
Scheme Design - For Approval

Sheet 30 of 56

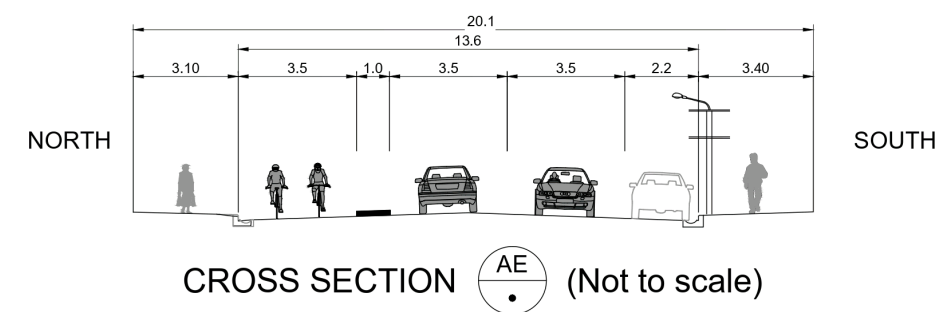
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ISSUE. 2 26/06/2019
SK130

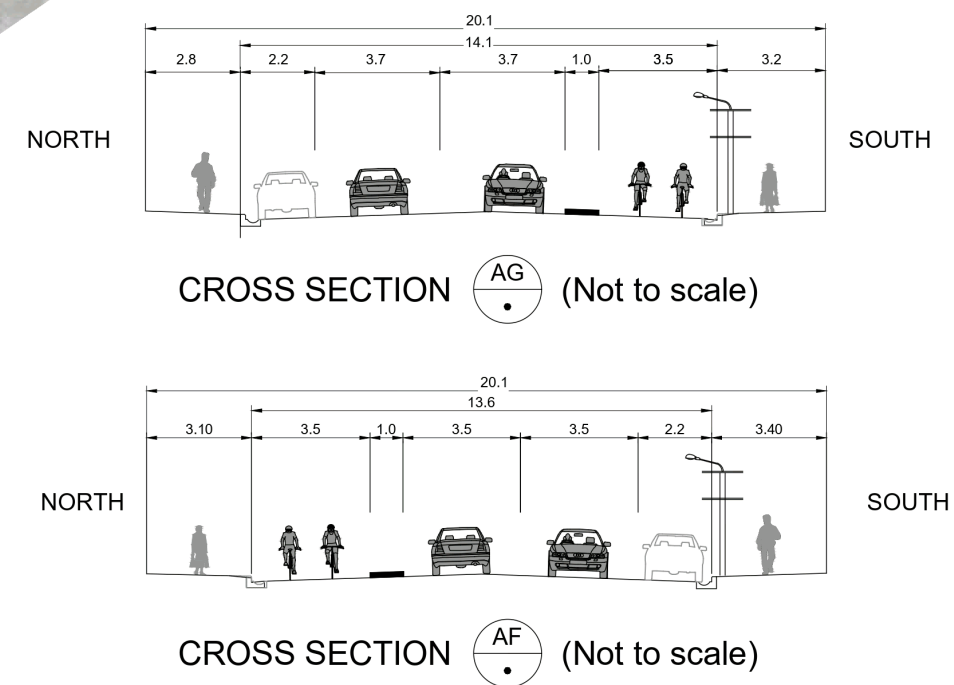
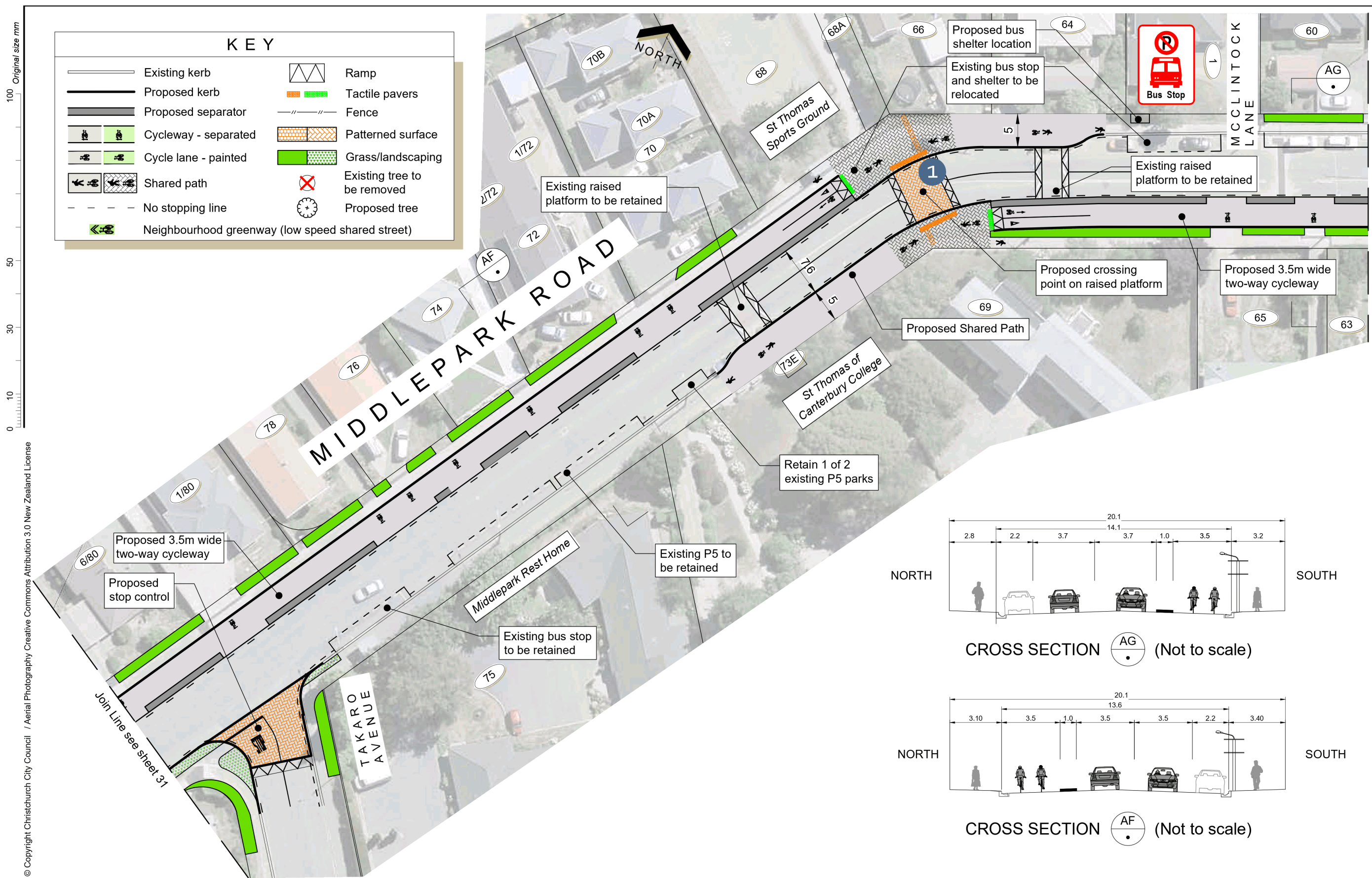


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KEY			
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	Proposed kerb		Tactile pavers
	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		

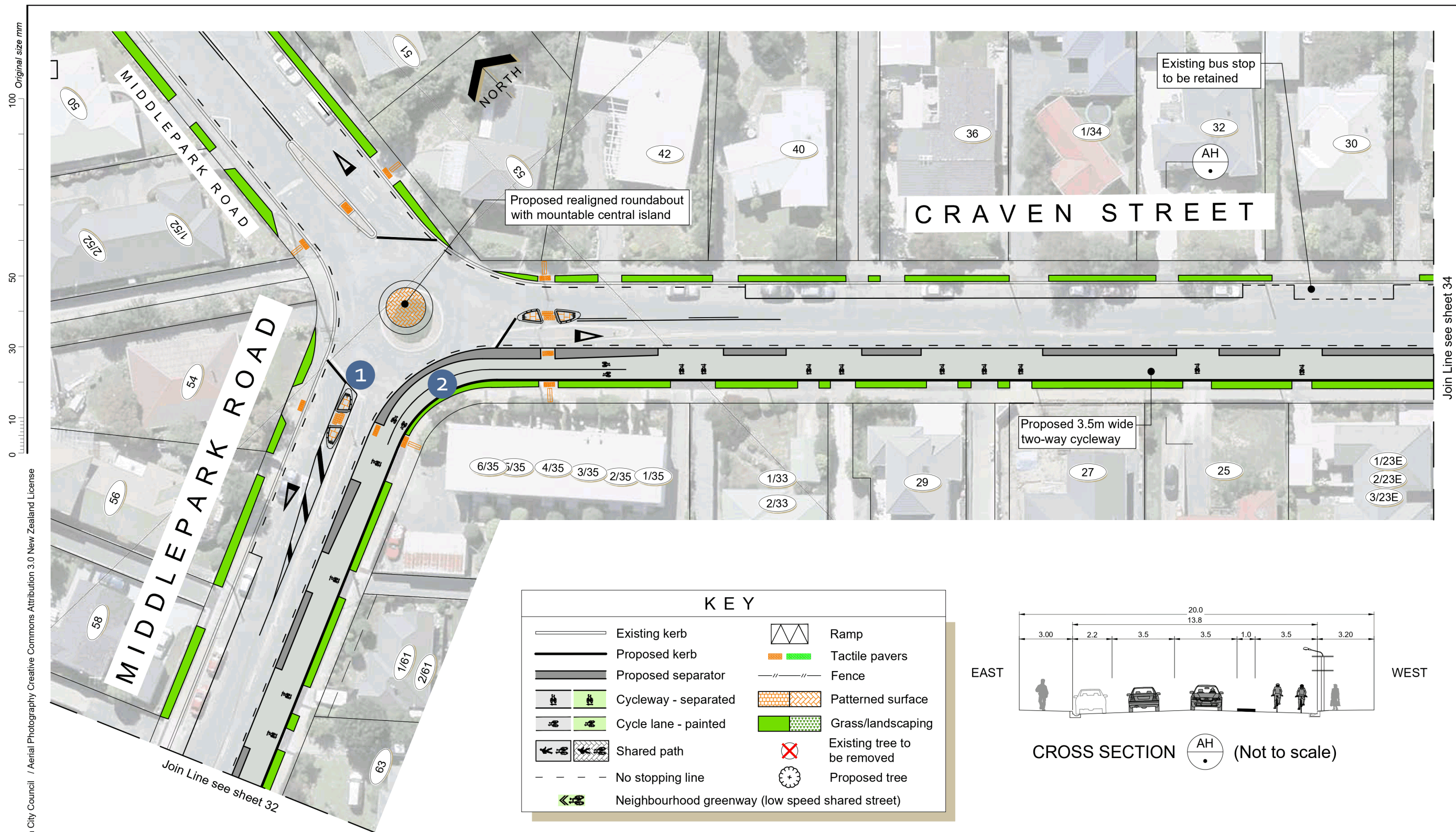




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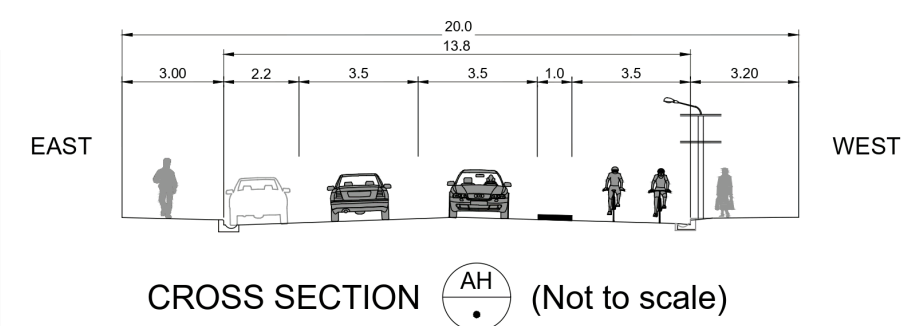
Join Line see sheet 33

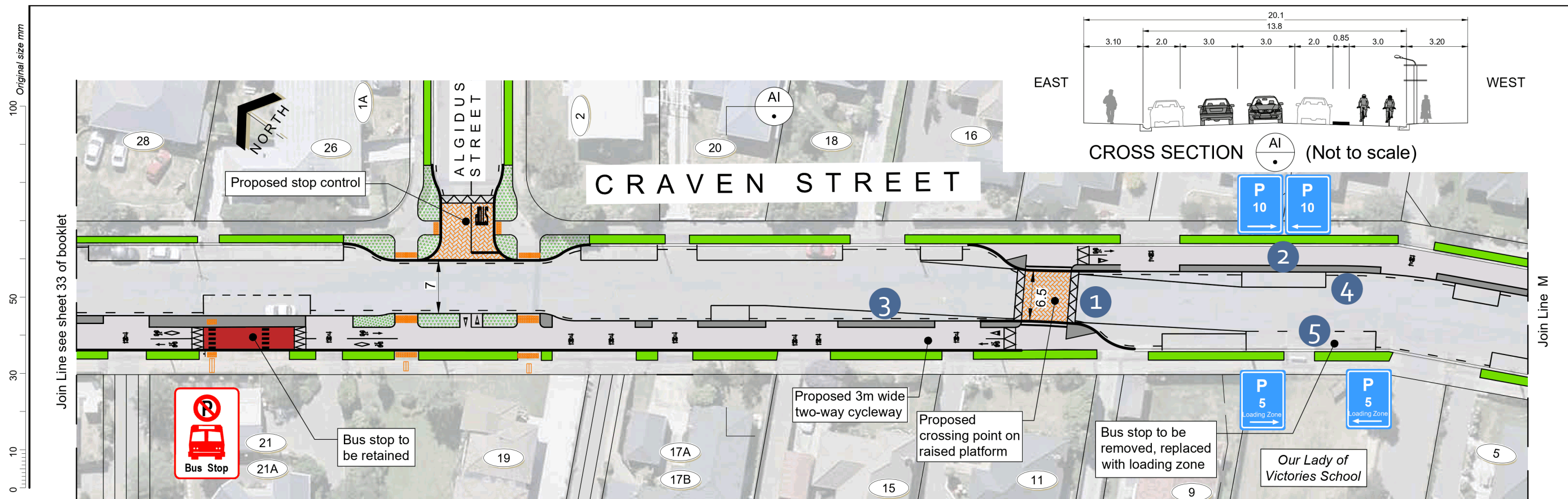
Attachment A Item 7



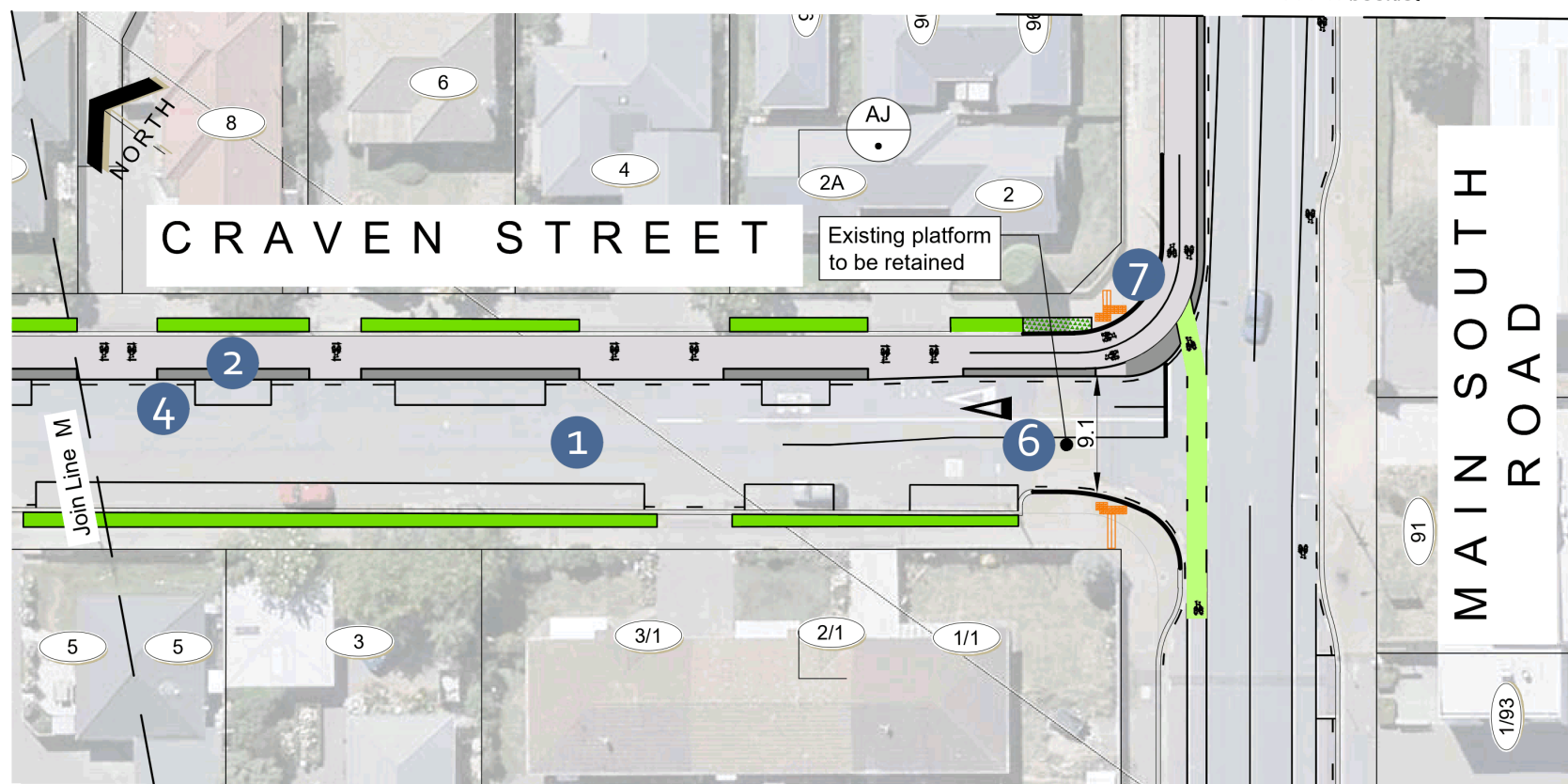
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	Cycleway - separated		Patterned surface
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	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		



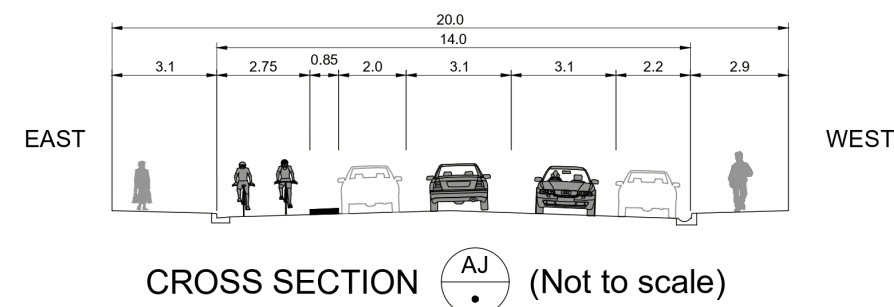


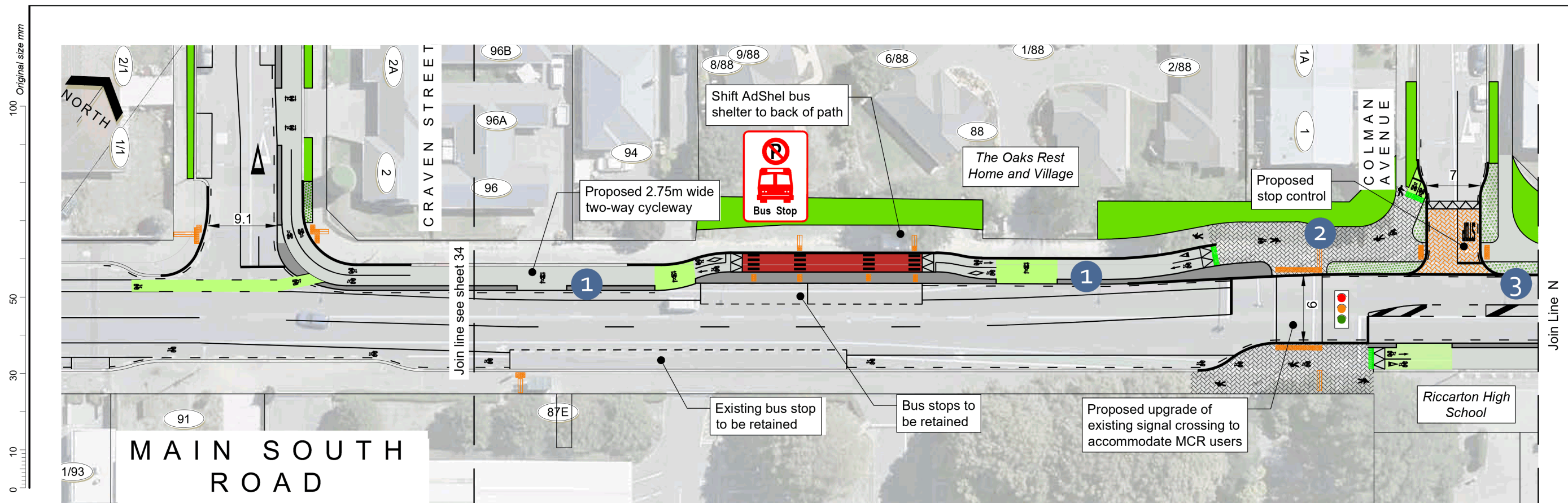
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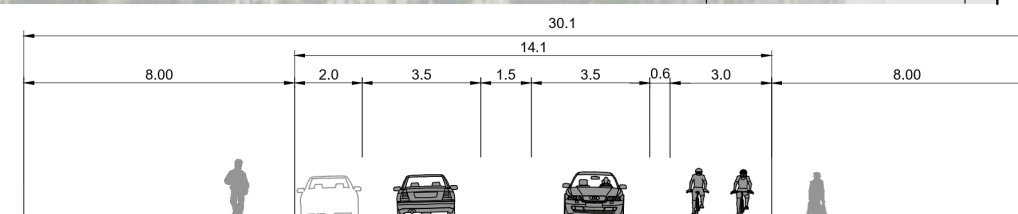
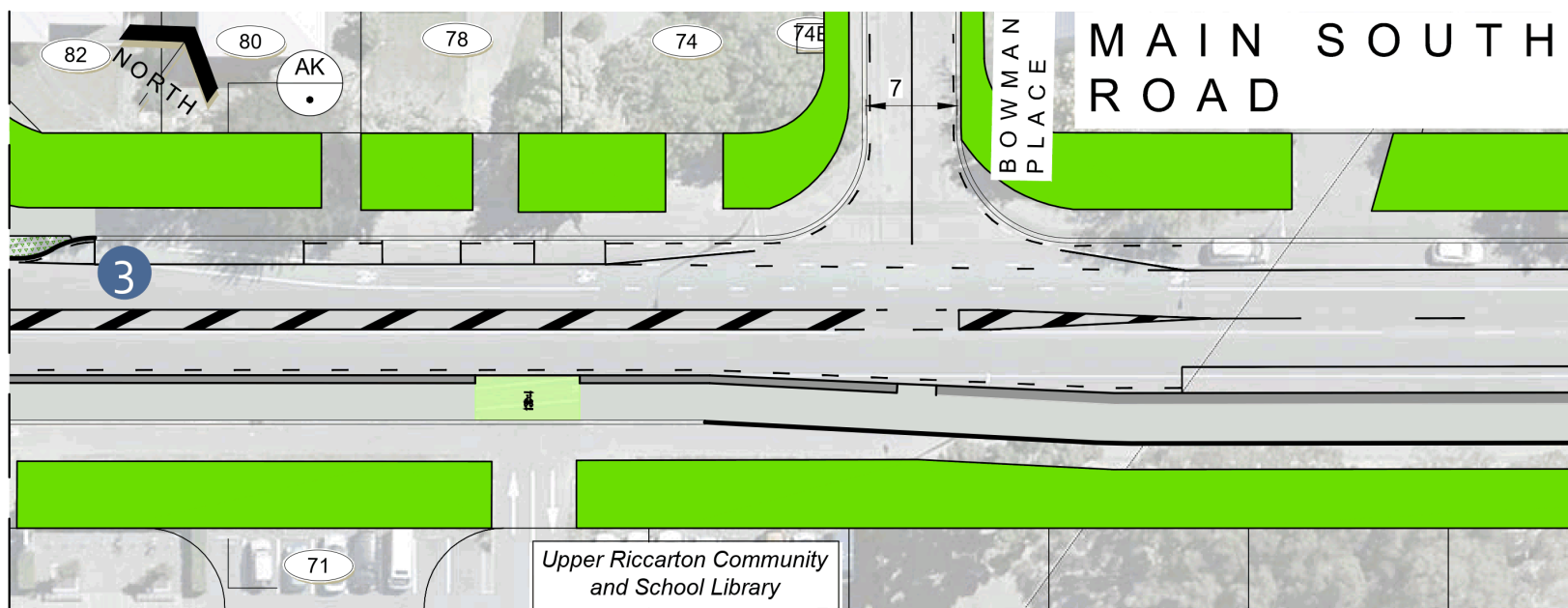
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	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		



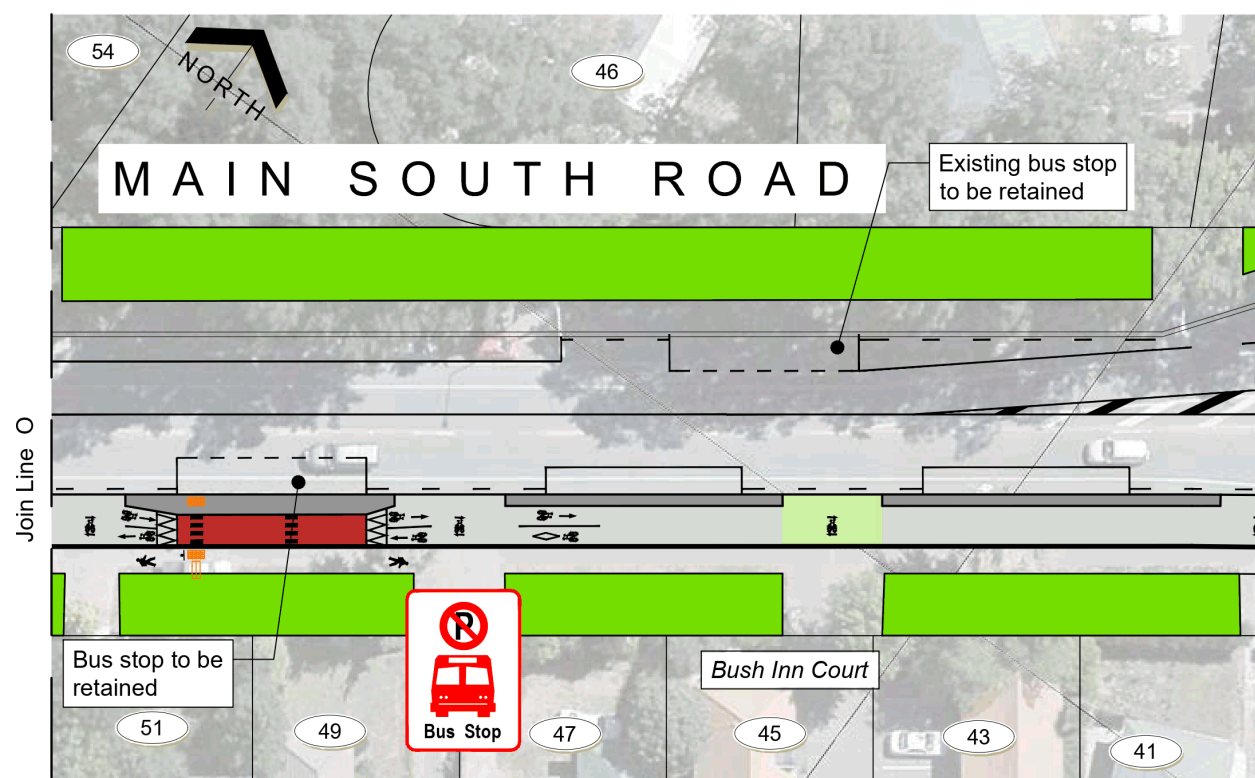
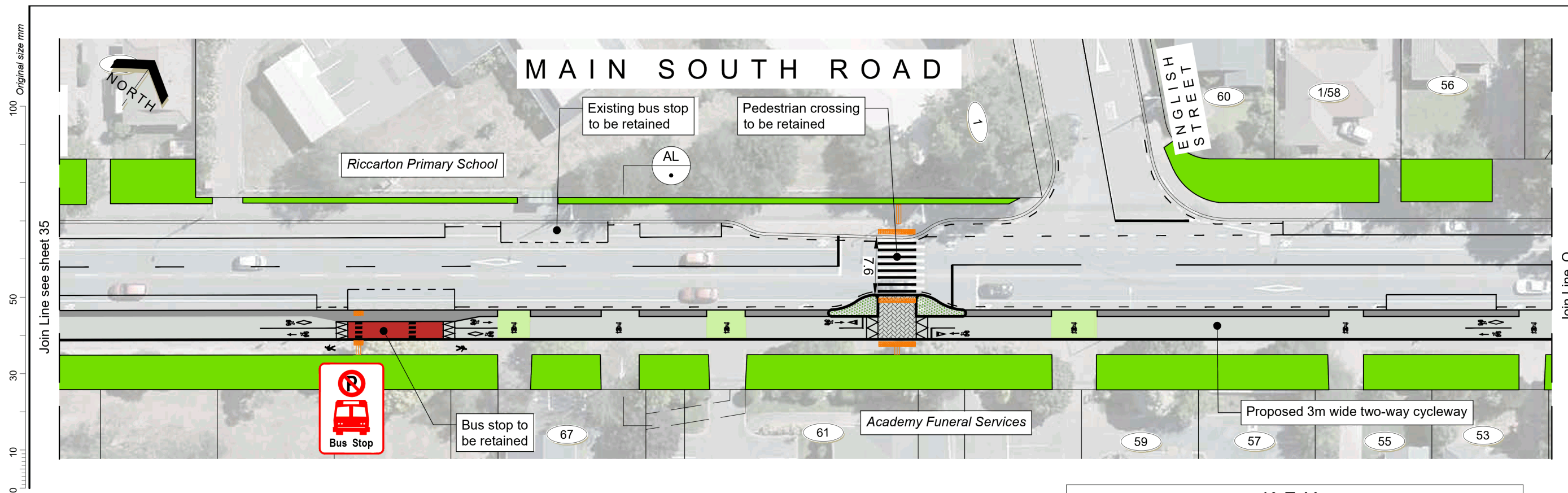


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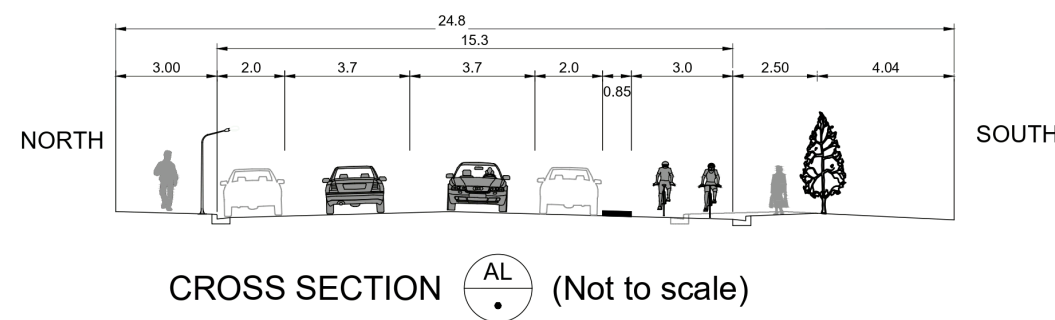
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KEY			
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	Proposed kerb		Tactile pavers
	Proposed separator		Fence
	Cycleway - separated		Patterned surface
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	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		

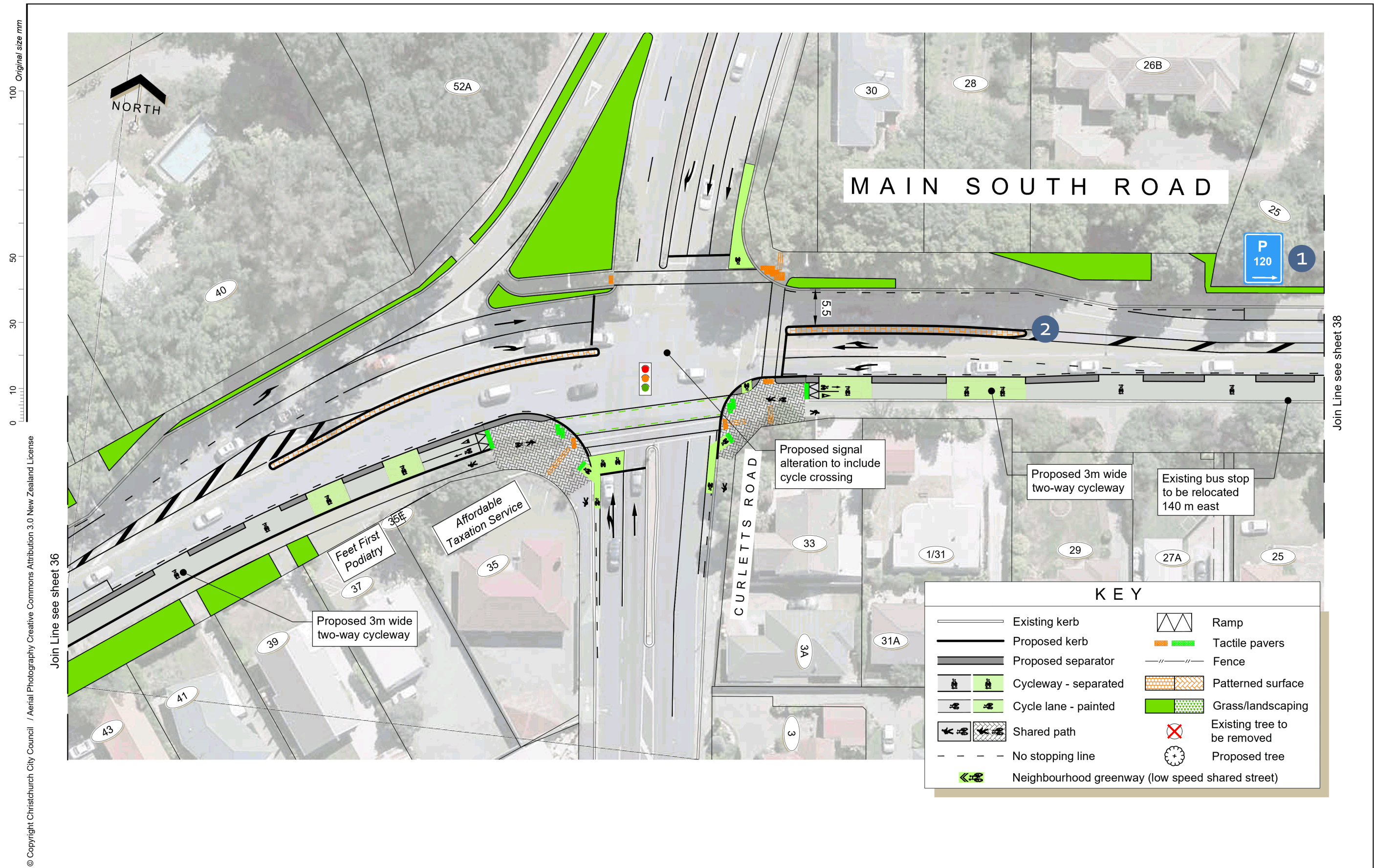


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	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		



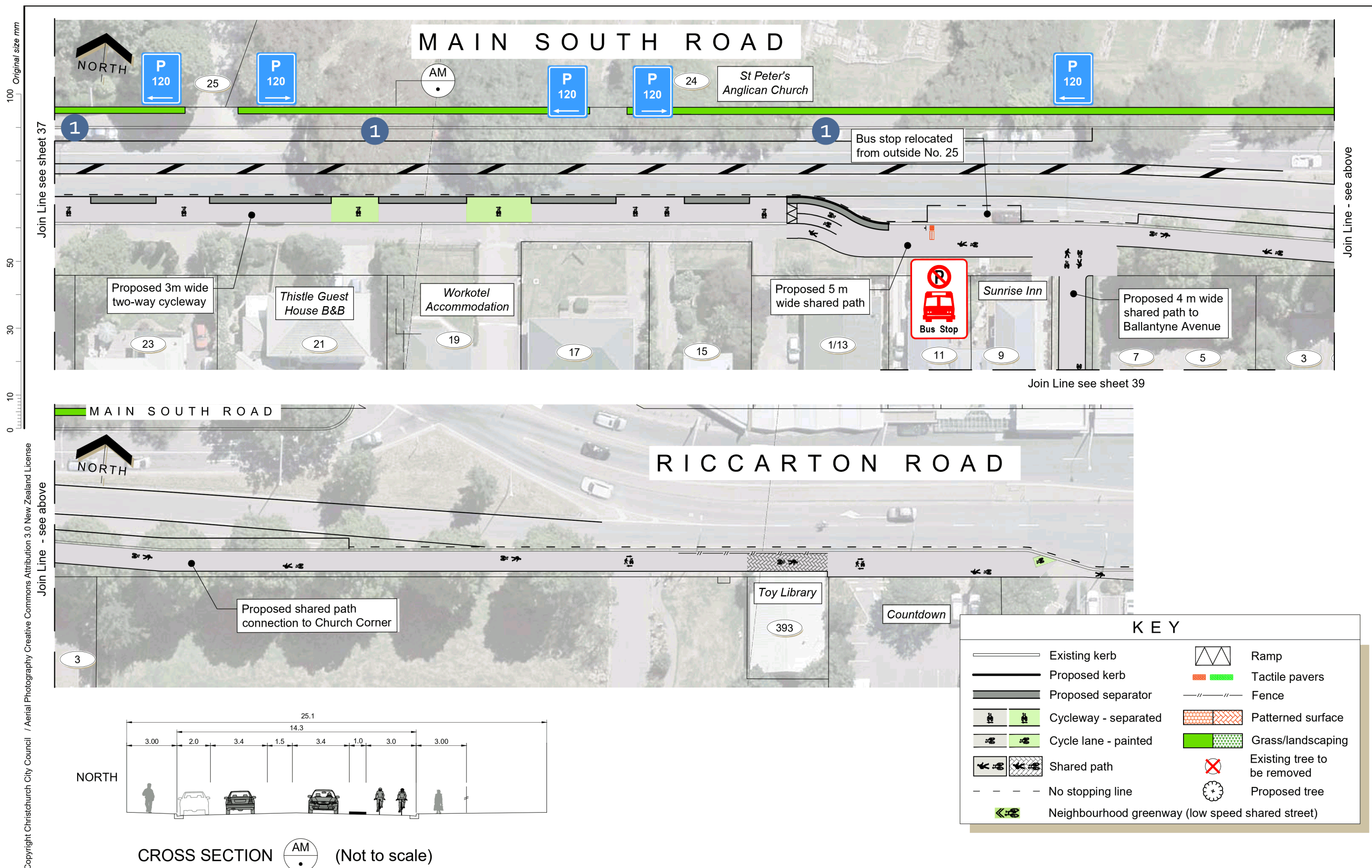
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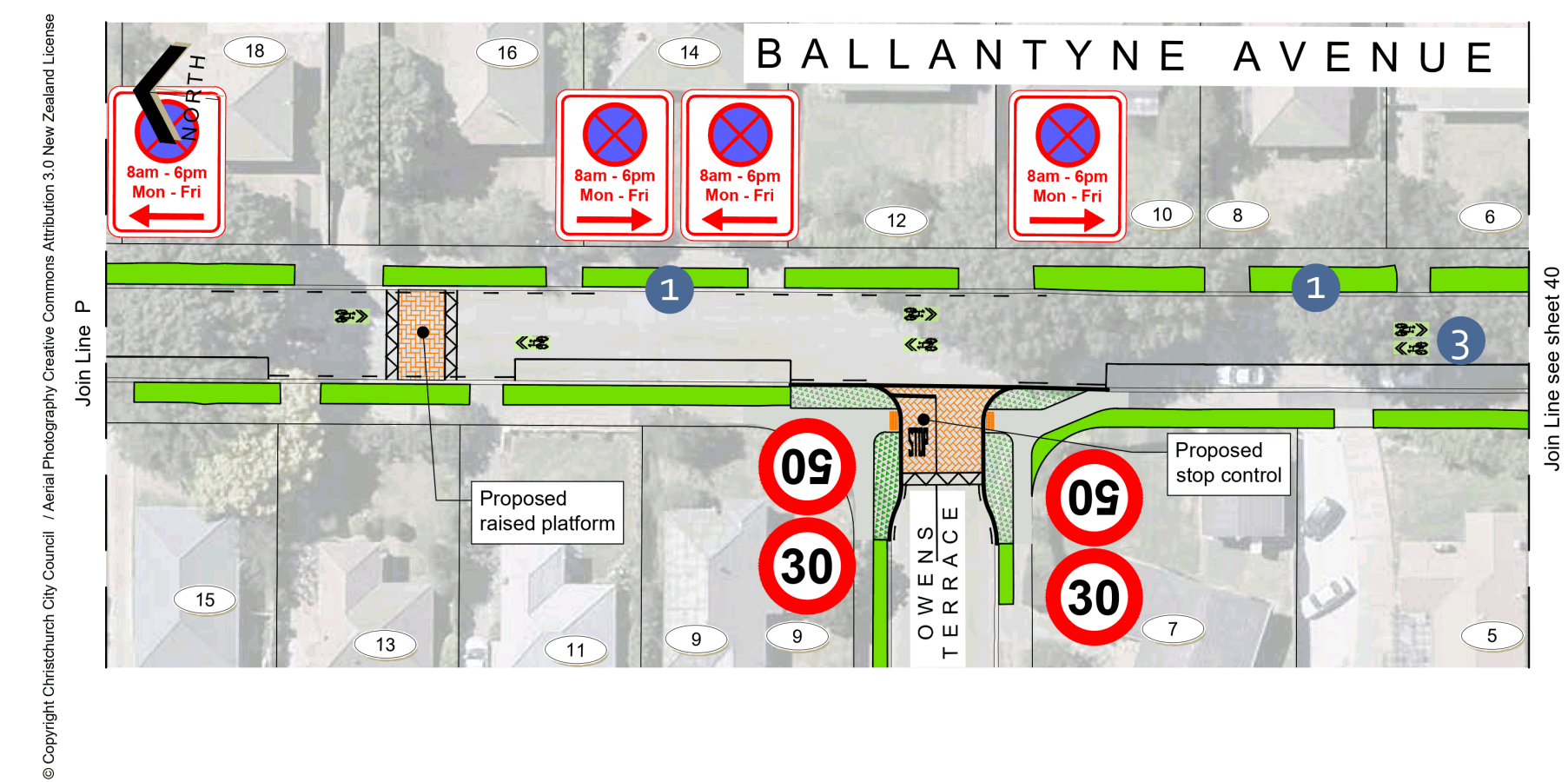
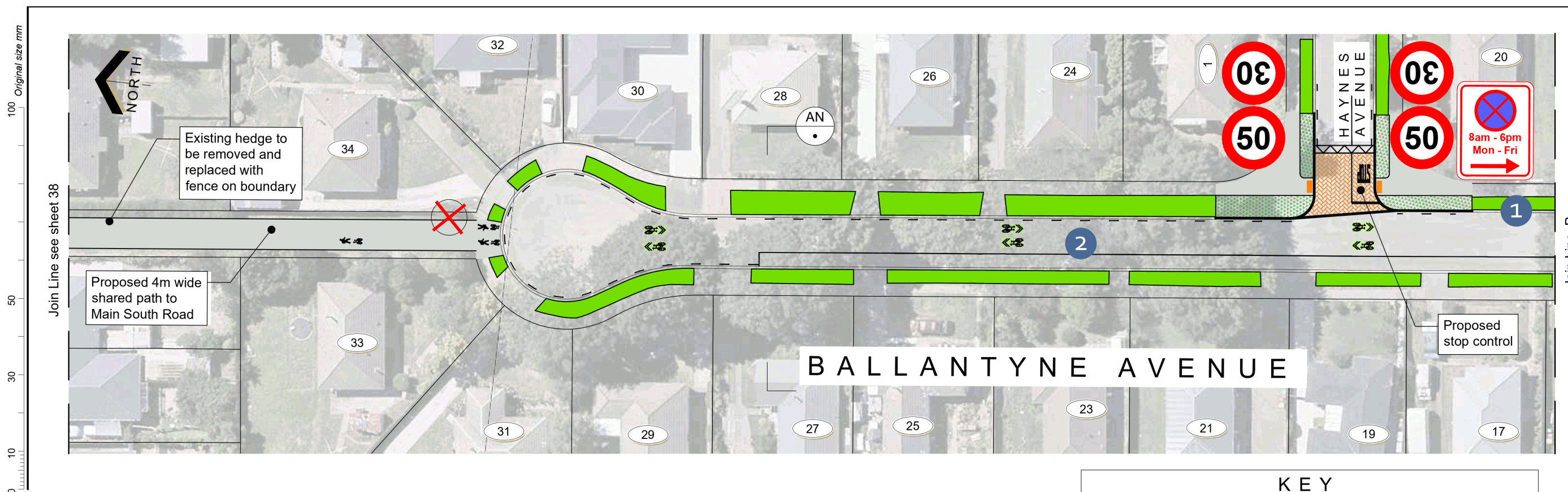


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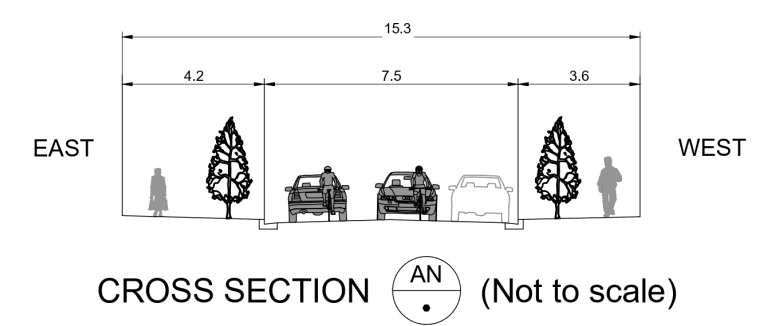
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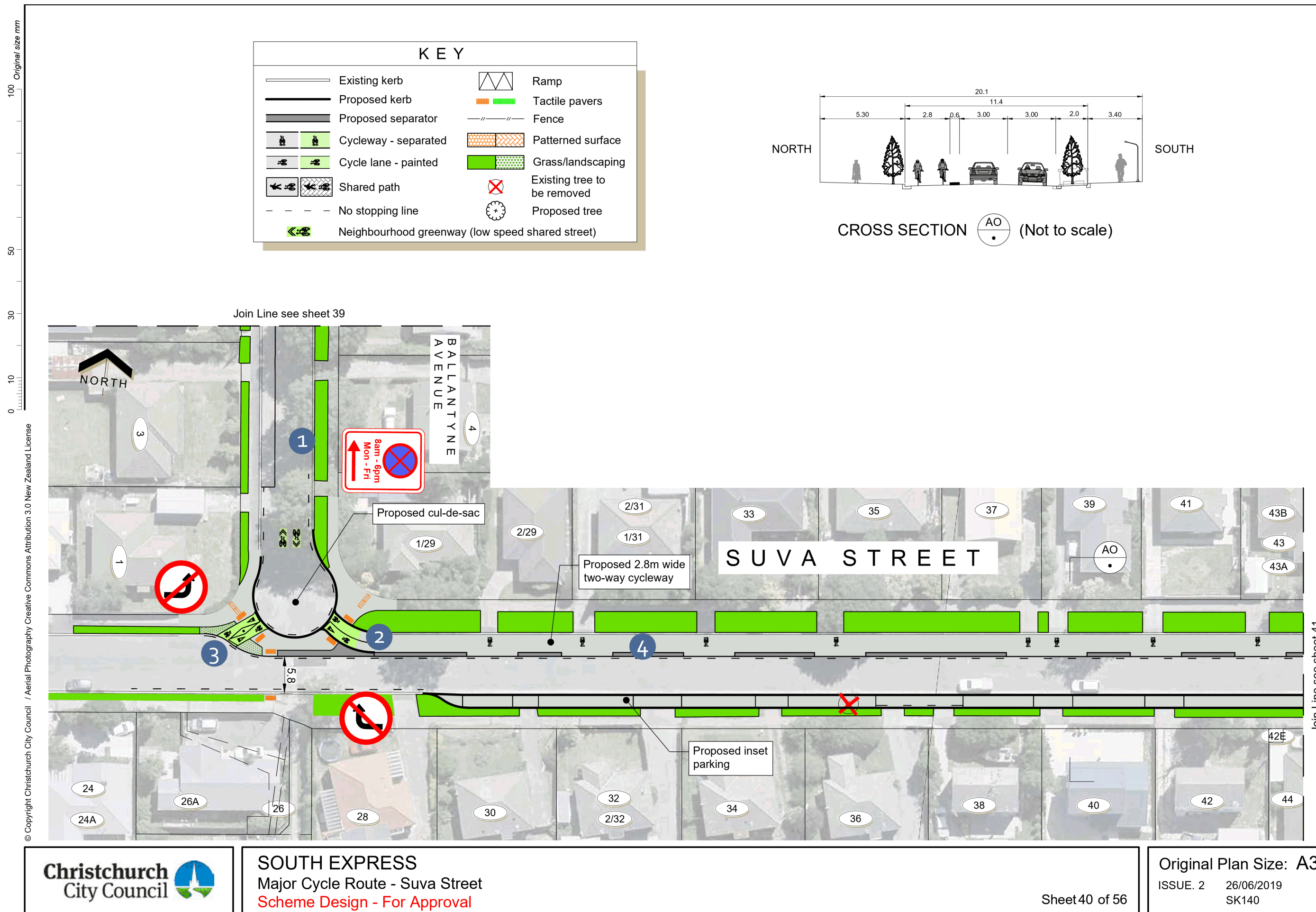
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	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		

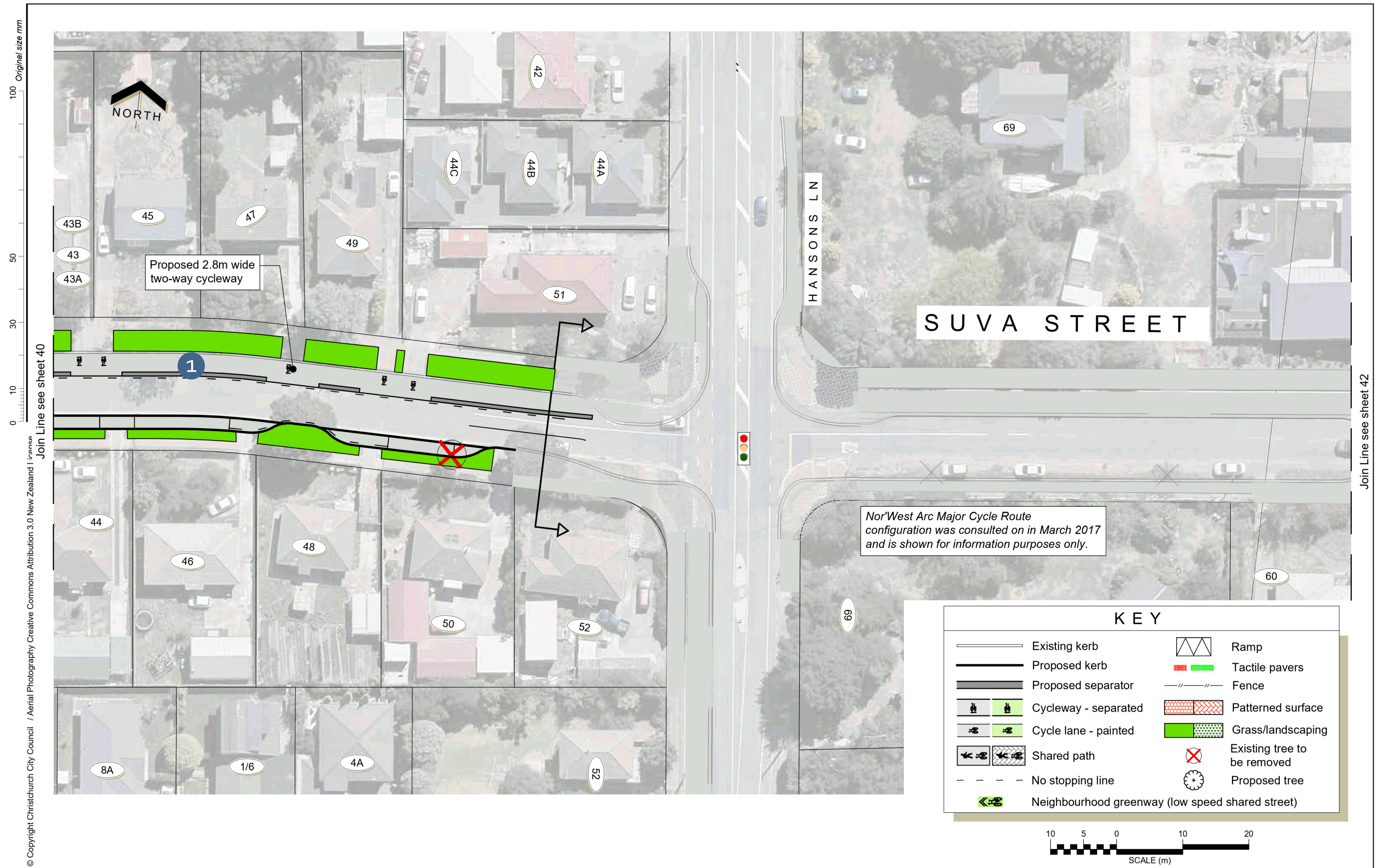


Attachment A Item 7

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	<p>SOUTH EXPRESS Major Cycle Route - Ballantyne Avenue Scheme Design - For Approval</p>	<p>Original Plan Size: A3 ISSUE. 2 26/06/2019 SK139</p>
<p>Sheet 39 of 56</p>		



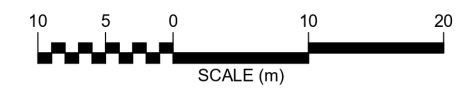


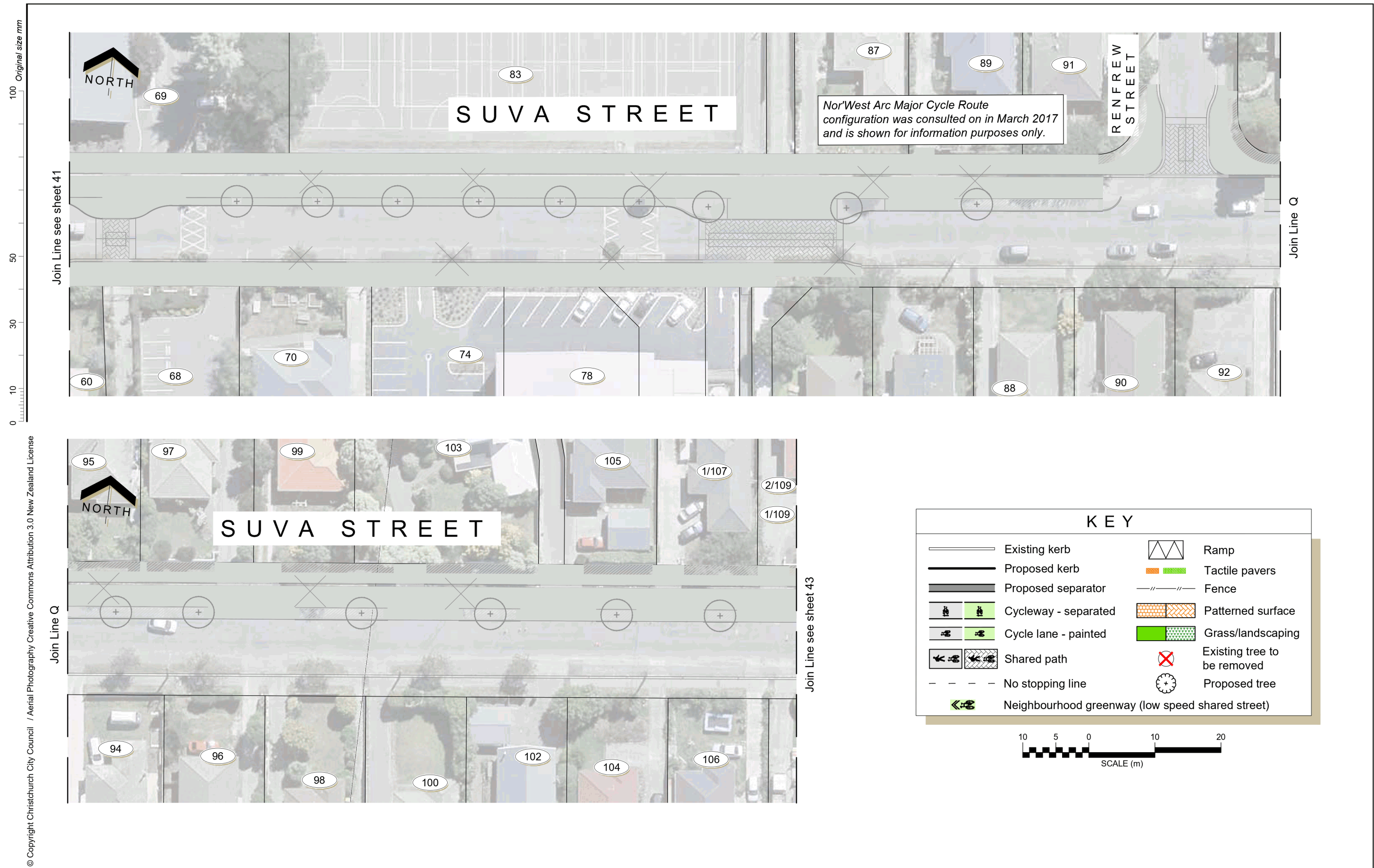
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Join Line see sheet 40

Join Line see sheet 42

NorWest Arc Major Cycle Route configuration was consulted on in March 2017 and is shown for information purposes only.

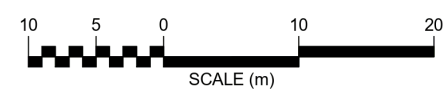
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	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		





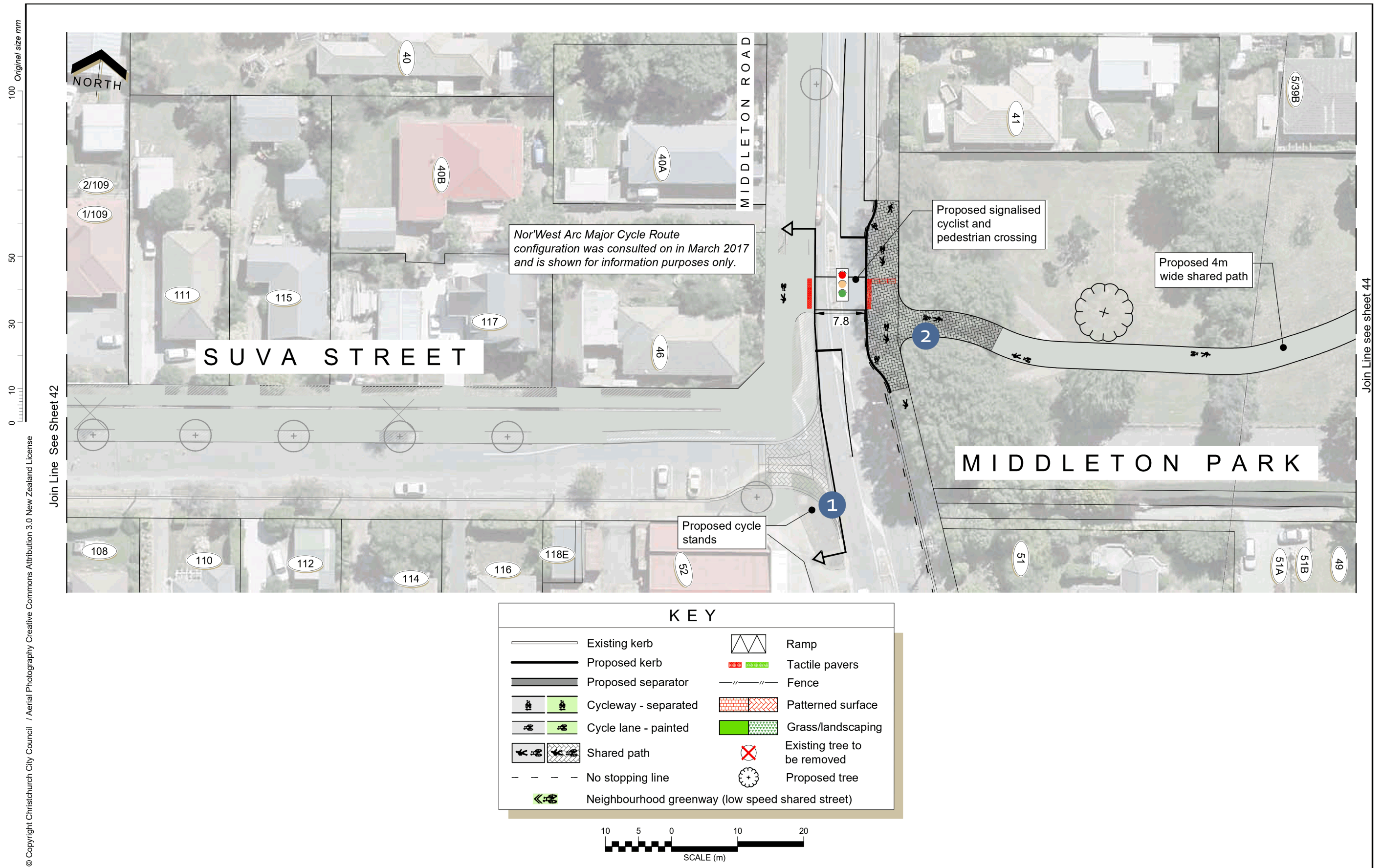
NorWest Arc Major Cycle Route configuration was consulted on in March 2017 and is shown for information purposes only.

KEY			
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	Proposed kerb		Tactile pavers
	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		



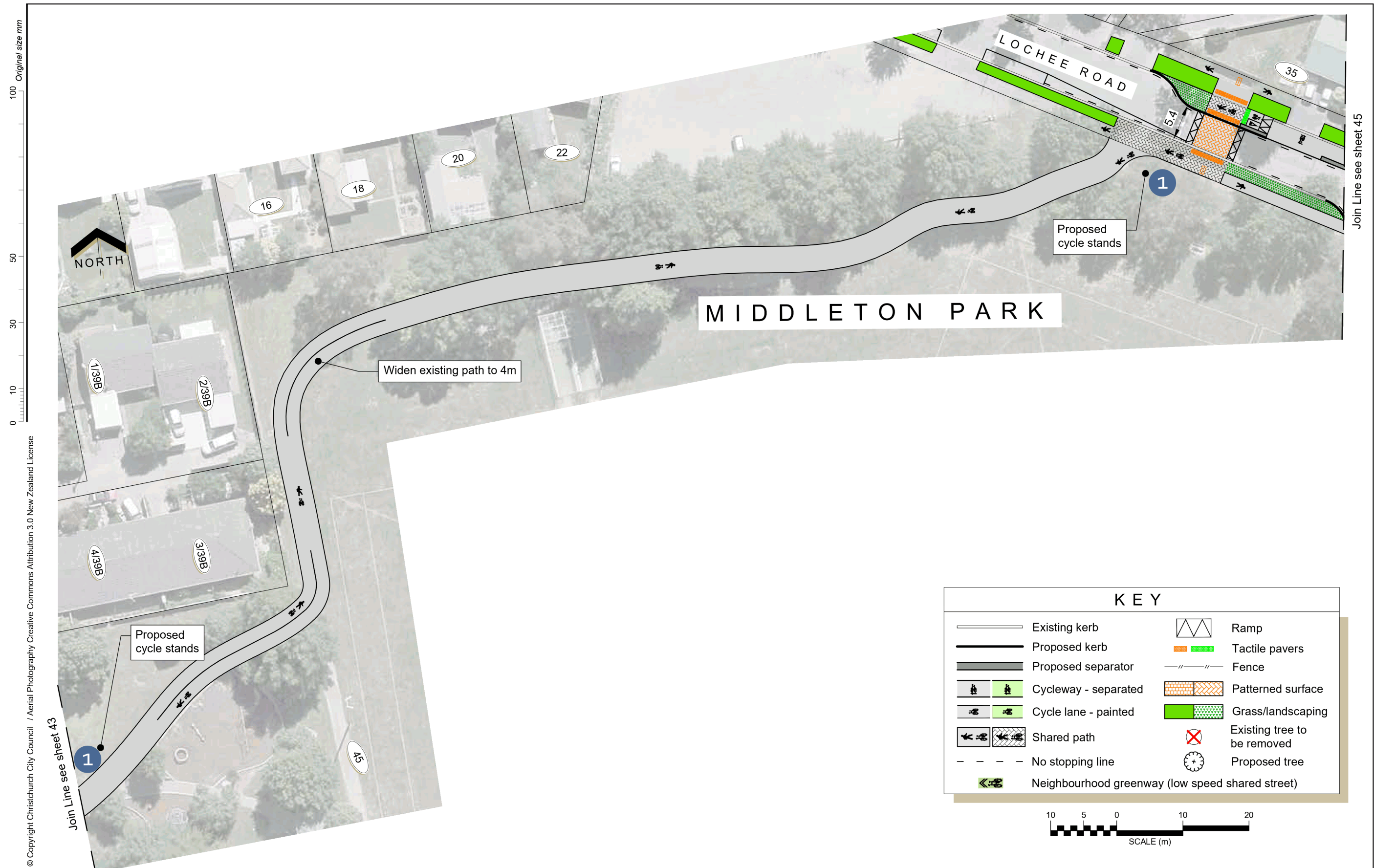
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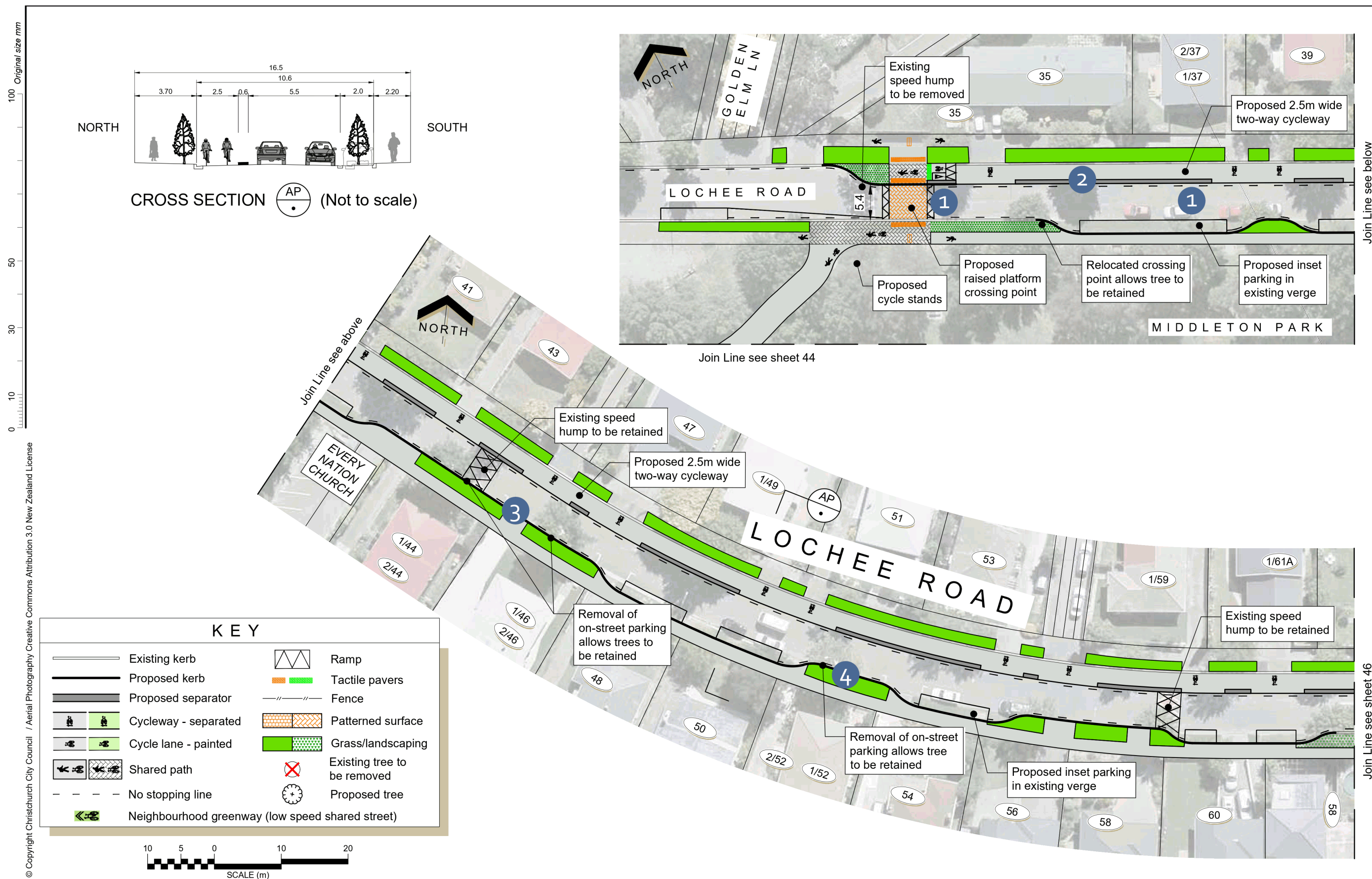
Sheet 42 of 56



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Join Line see sheet 44





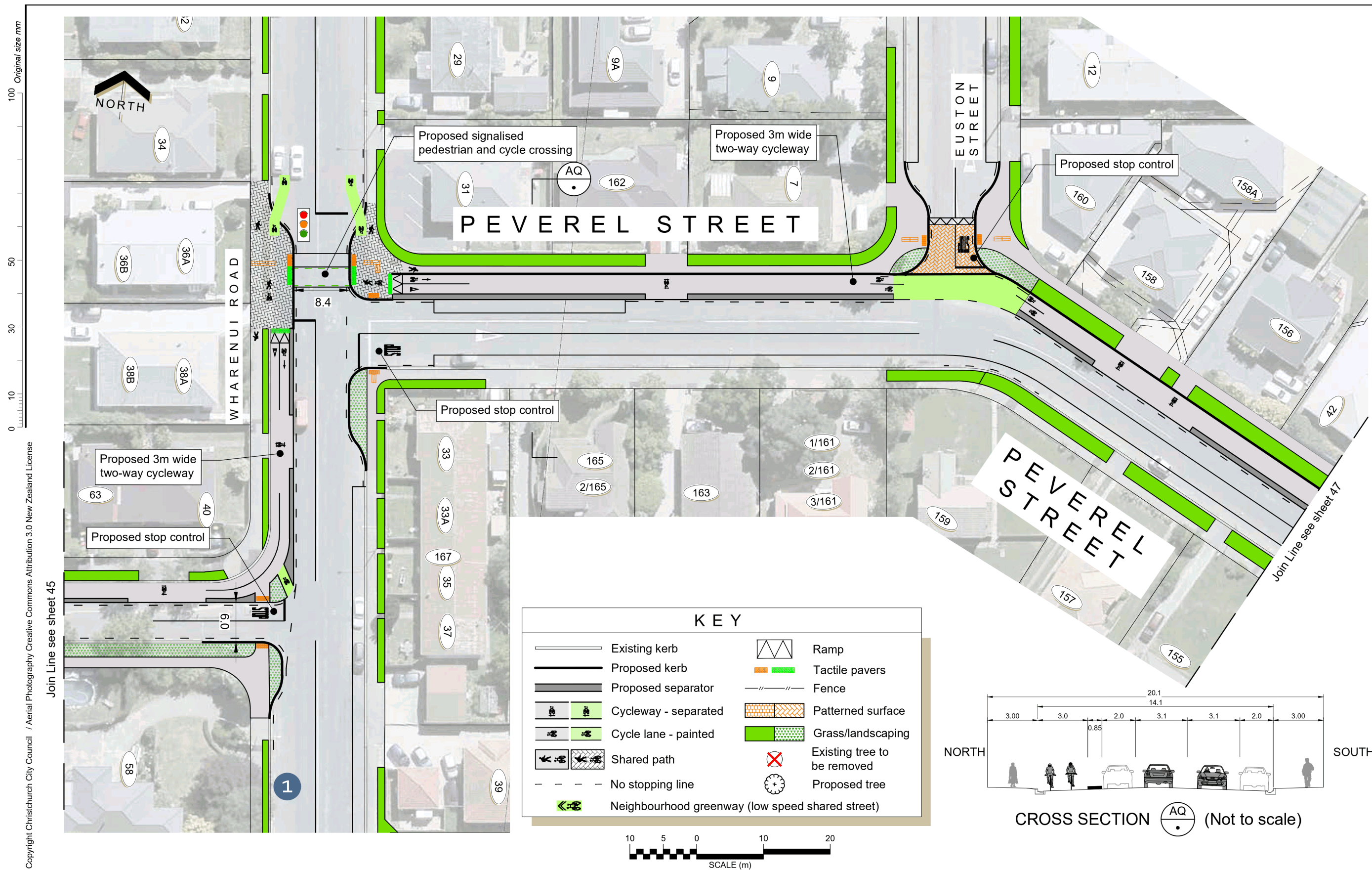
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Join Line see below

Join Line see sheet 44

Join Line see sheet 46

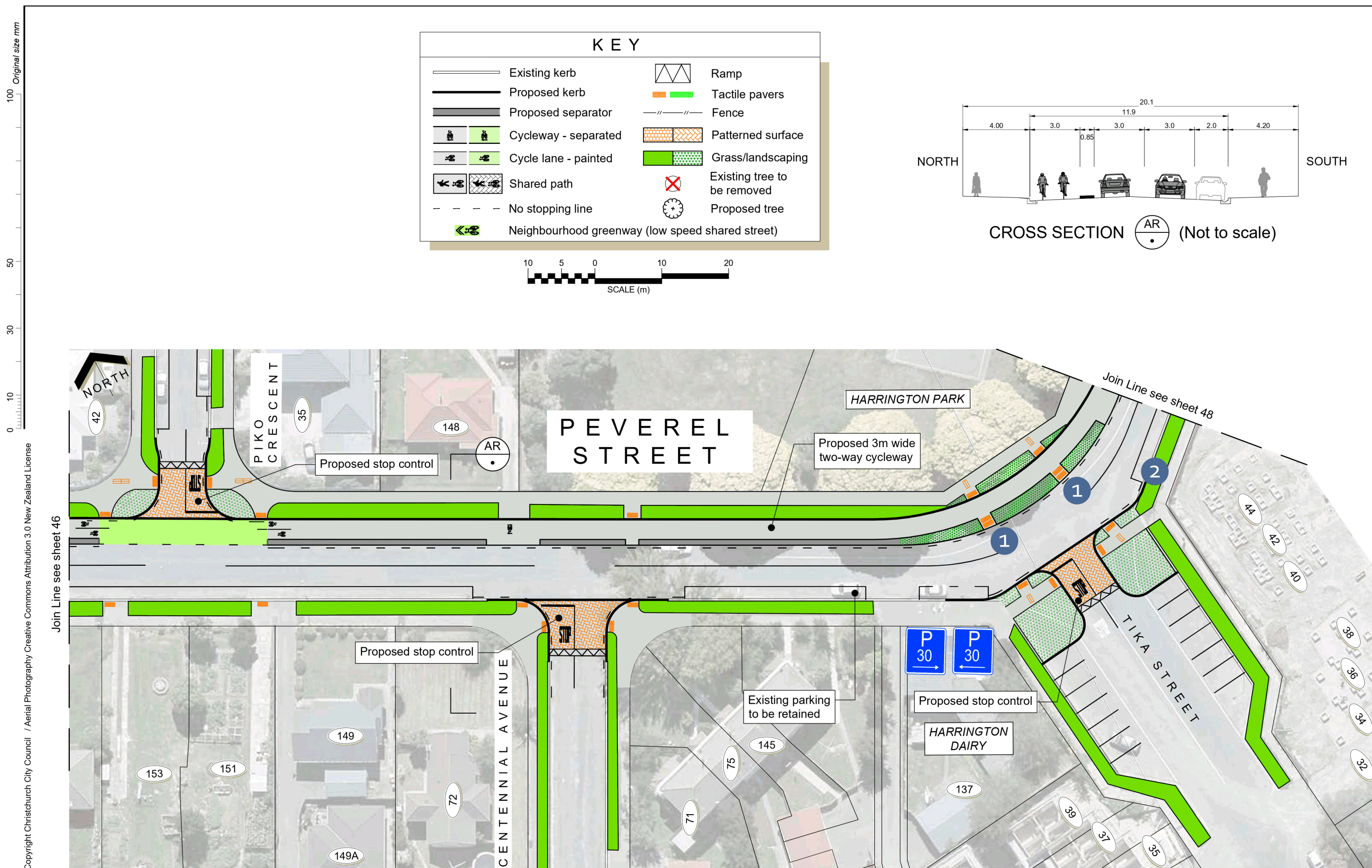
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<p>Sheet 45 of 56</p>		



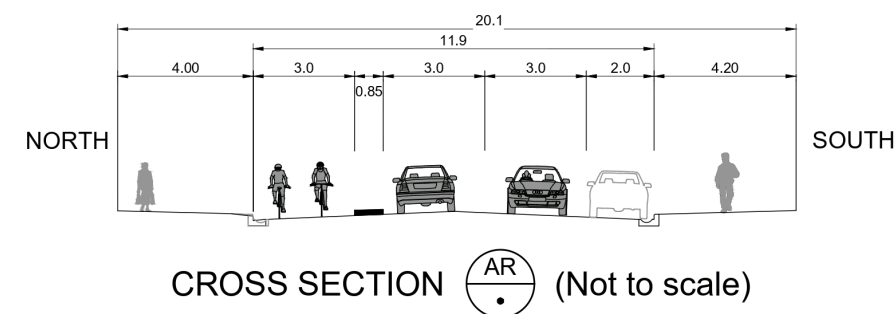
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Join Line see sheet 45

Join Line see sheet 47



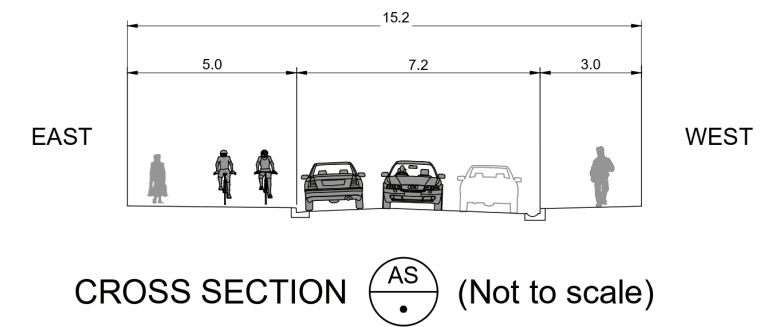
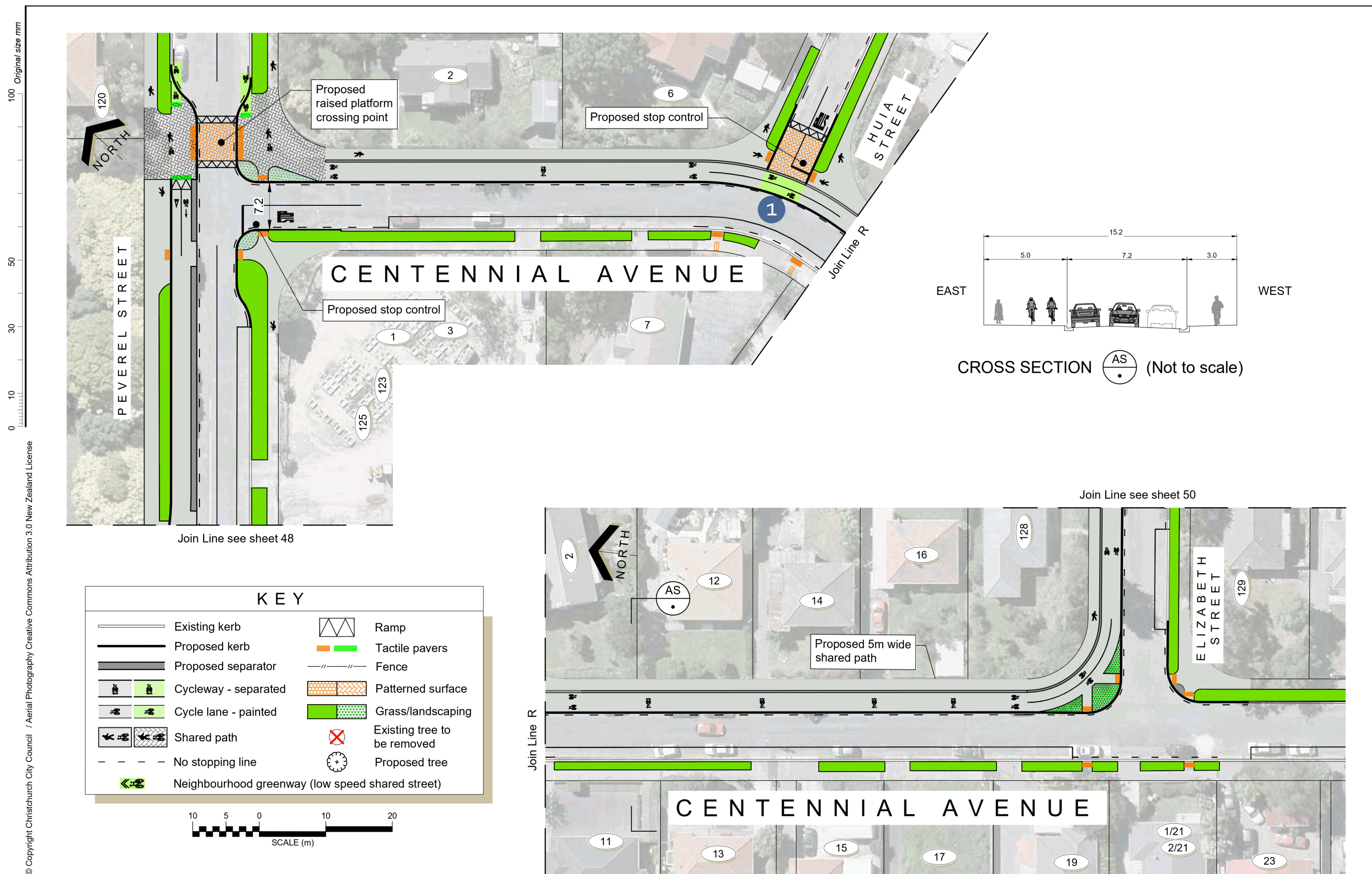
KEY			
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	Proposed kerb		Tactile pavers
	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		



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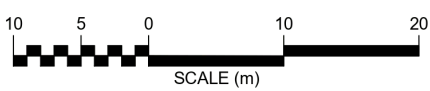
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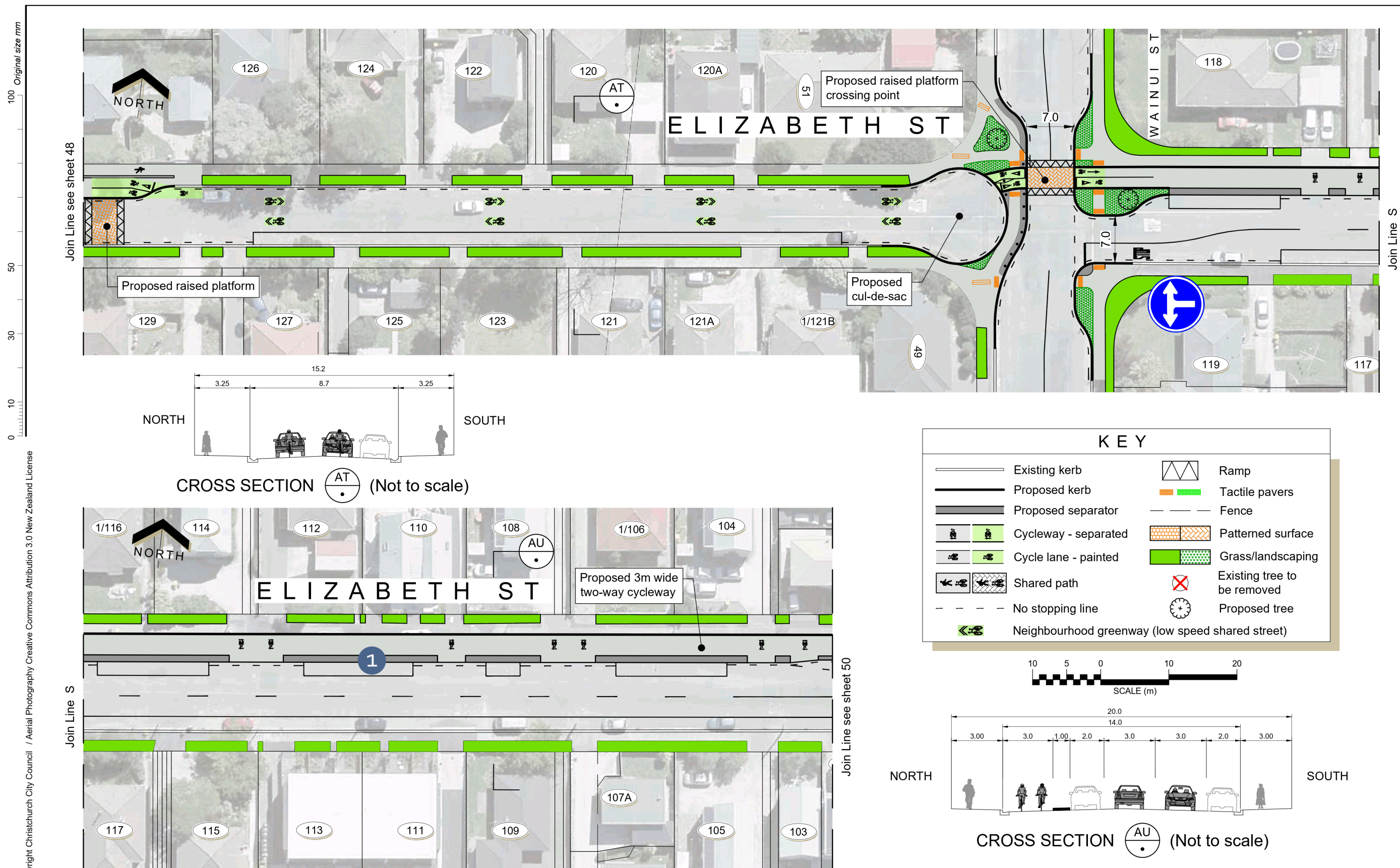
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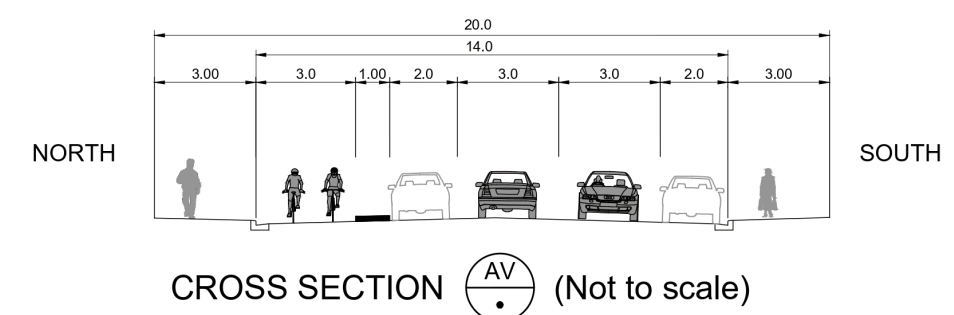
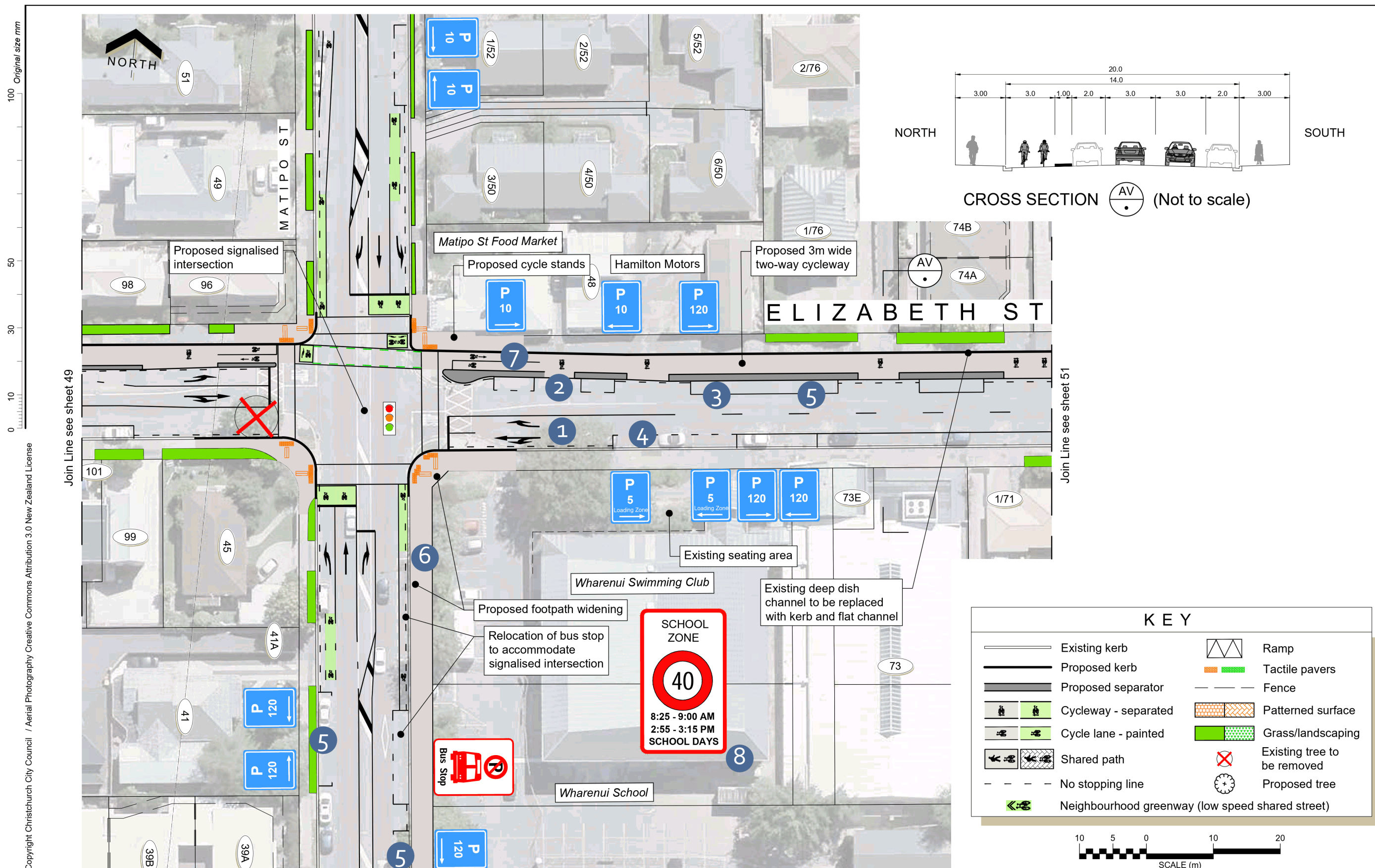


KEY

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	Proposed kerb		Tactile pavers
	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		

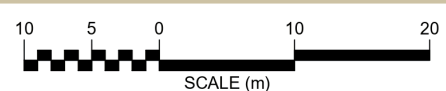






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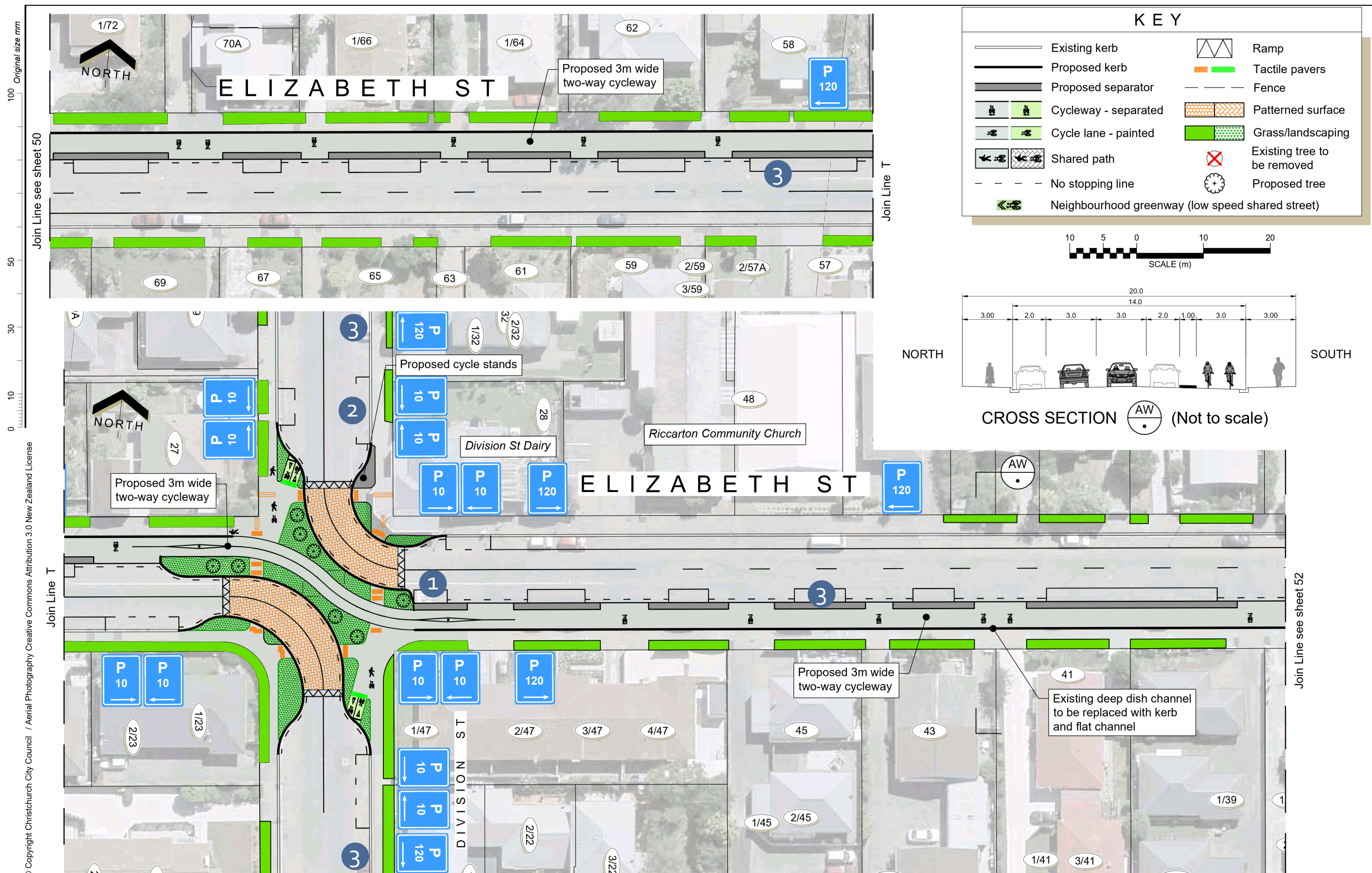
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	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		



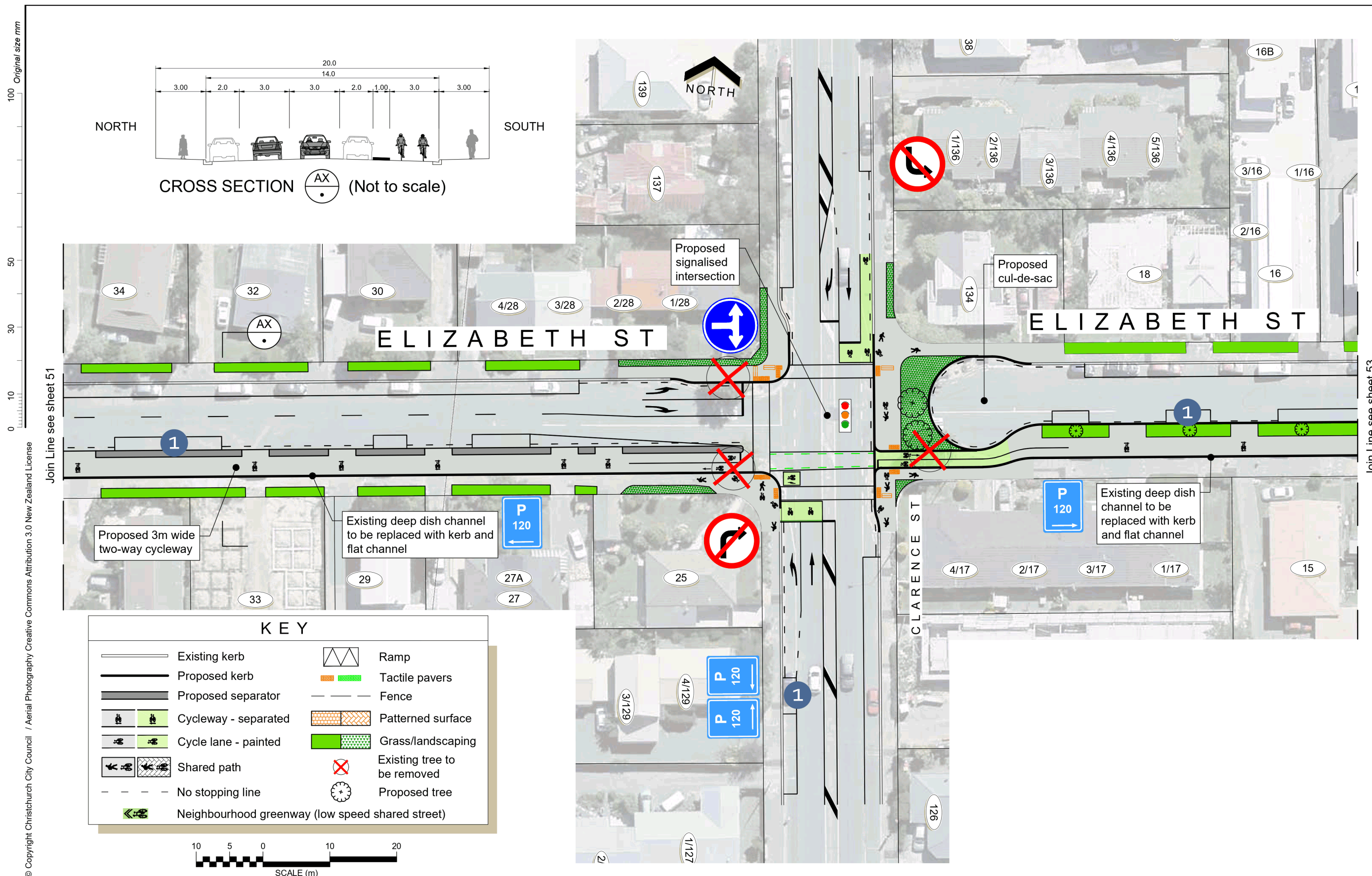
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Join Line see sheet 49

Join Line see sheet 51

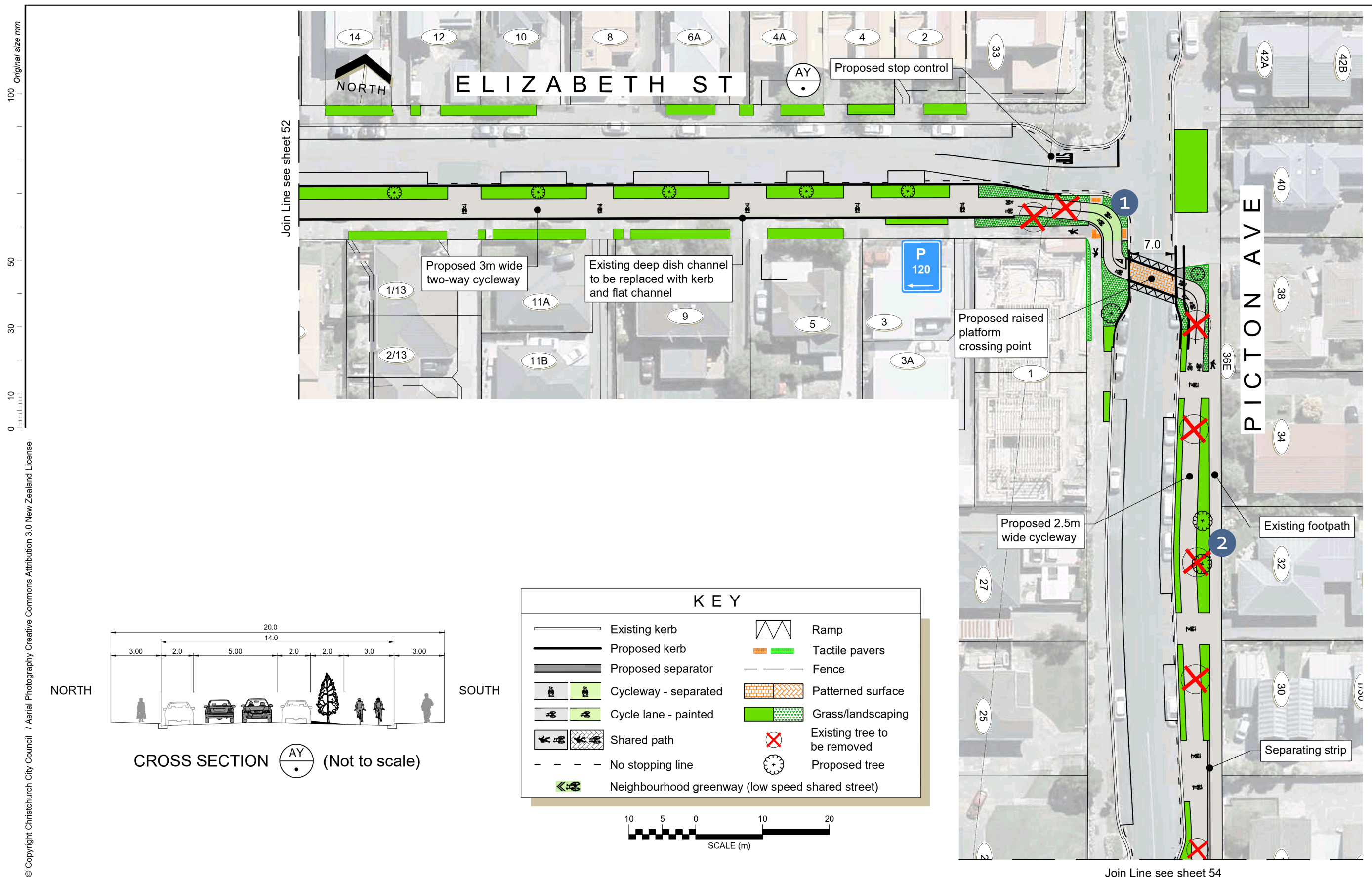


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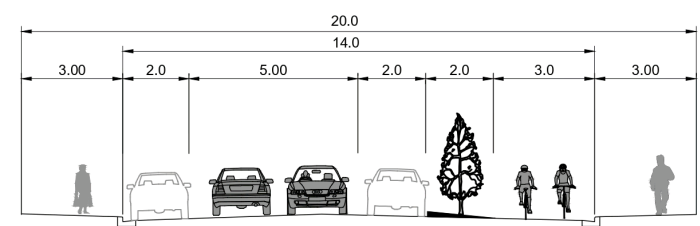
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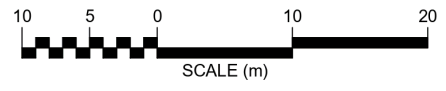
Join Line see sheet 52

Join Line see sheet 54

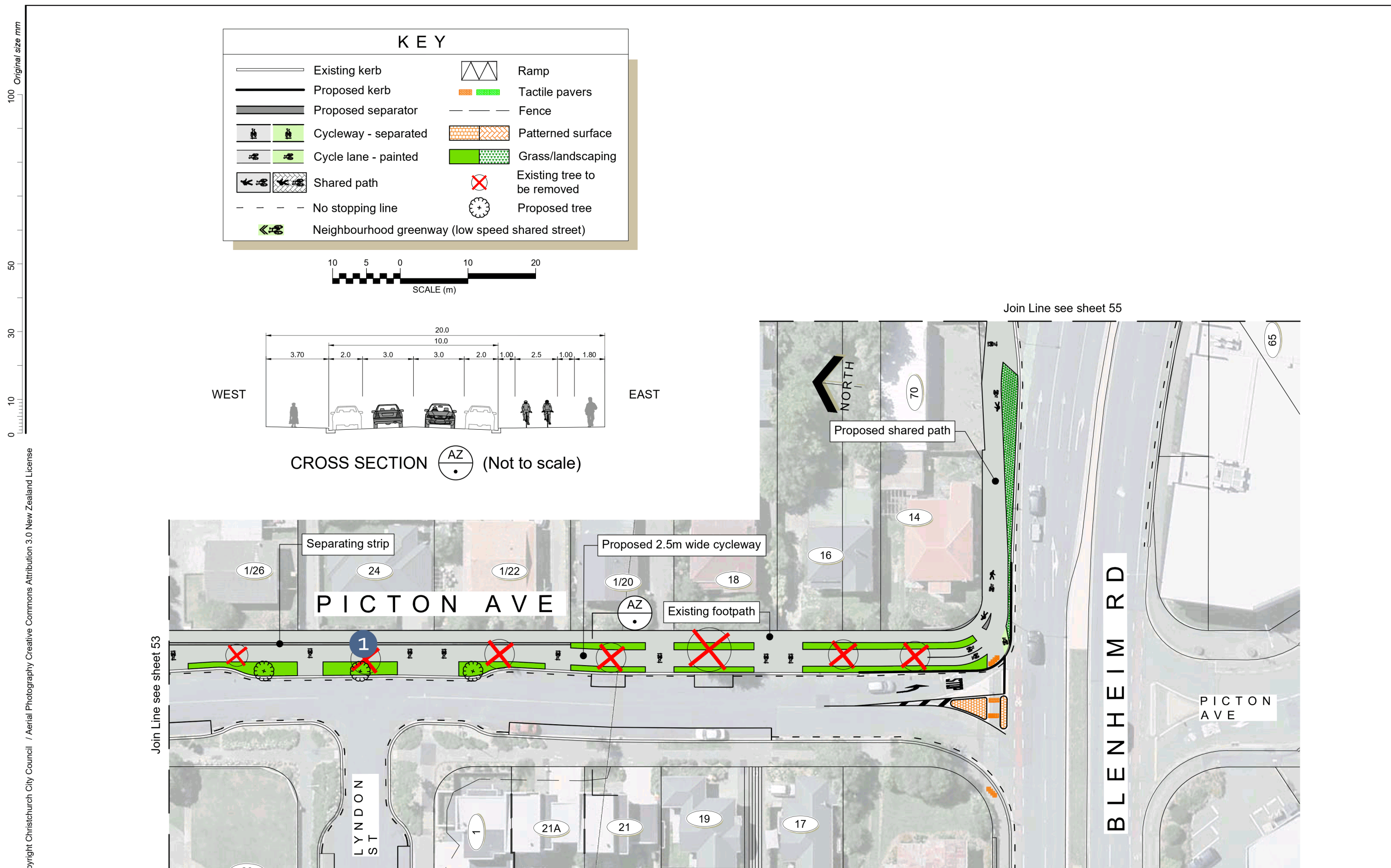


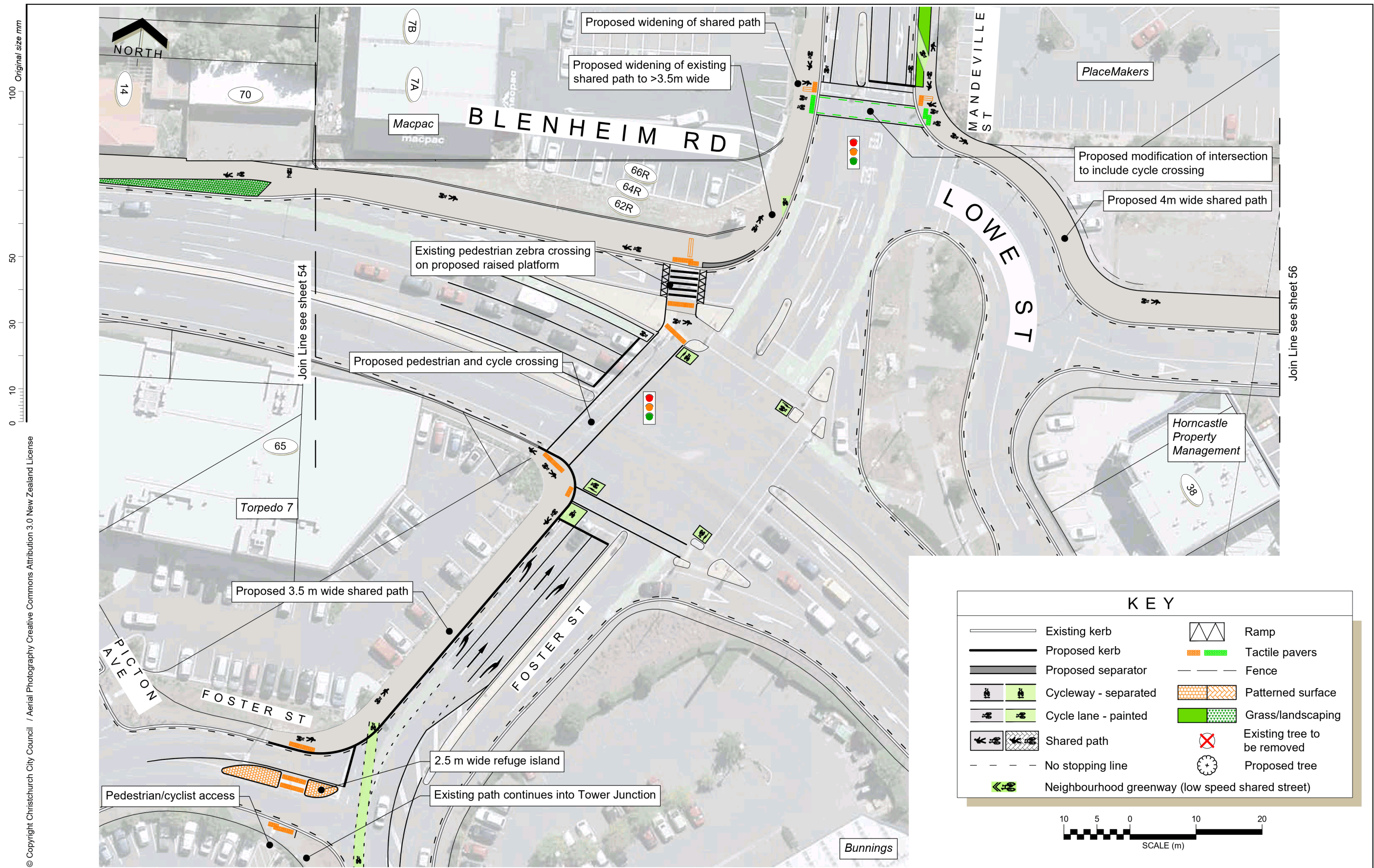
CROSS SECTION AY (Not to scale)

KEY			
	Existing kerb		Ramp
	Proposed kerb		Tactile pavers
	Proposed separator		Fence
	Cycleway - separated		Patterned surface
	Cycle lane - painted		Grass/landscaping
	Shared path		Existing tree to be removed
	No stopping line		Proposed tree
	Neighbourhood greenway (low speed shared street)		

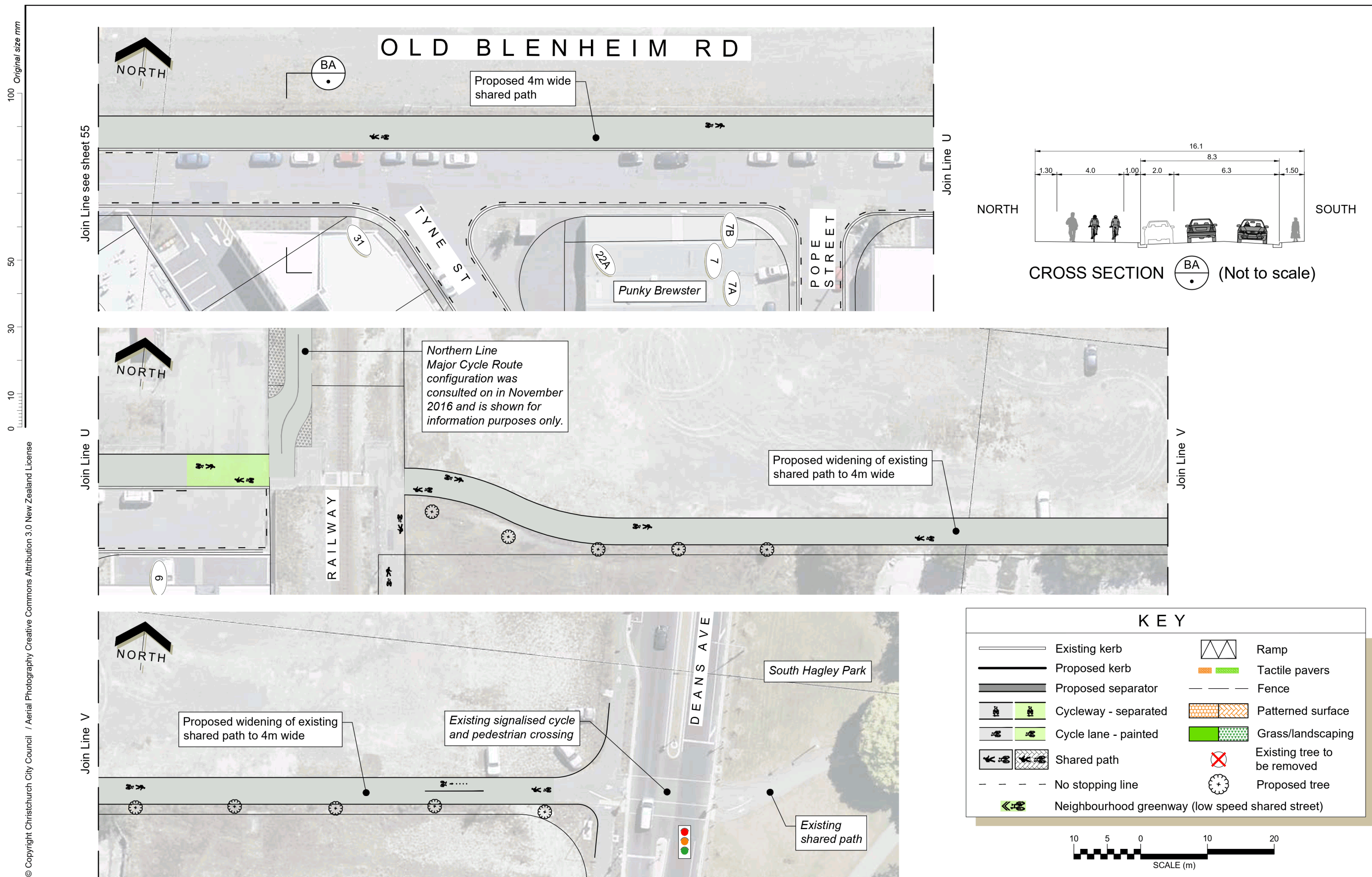


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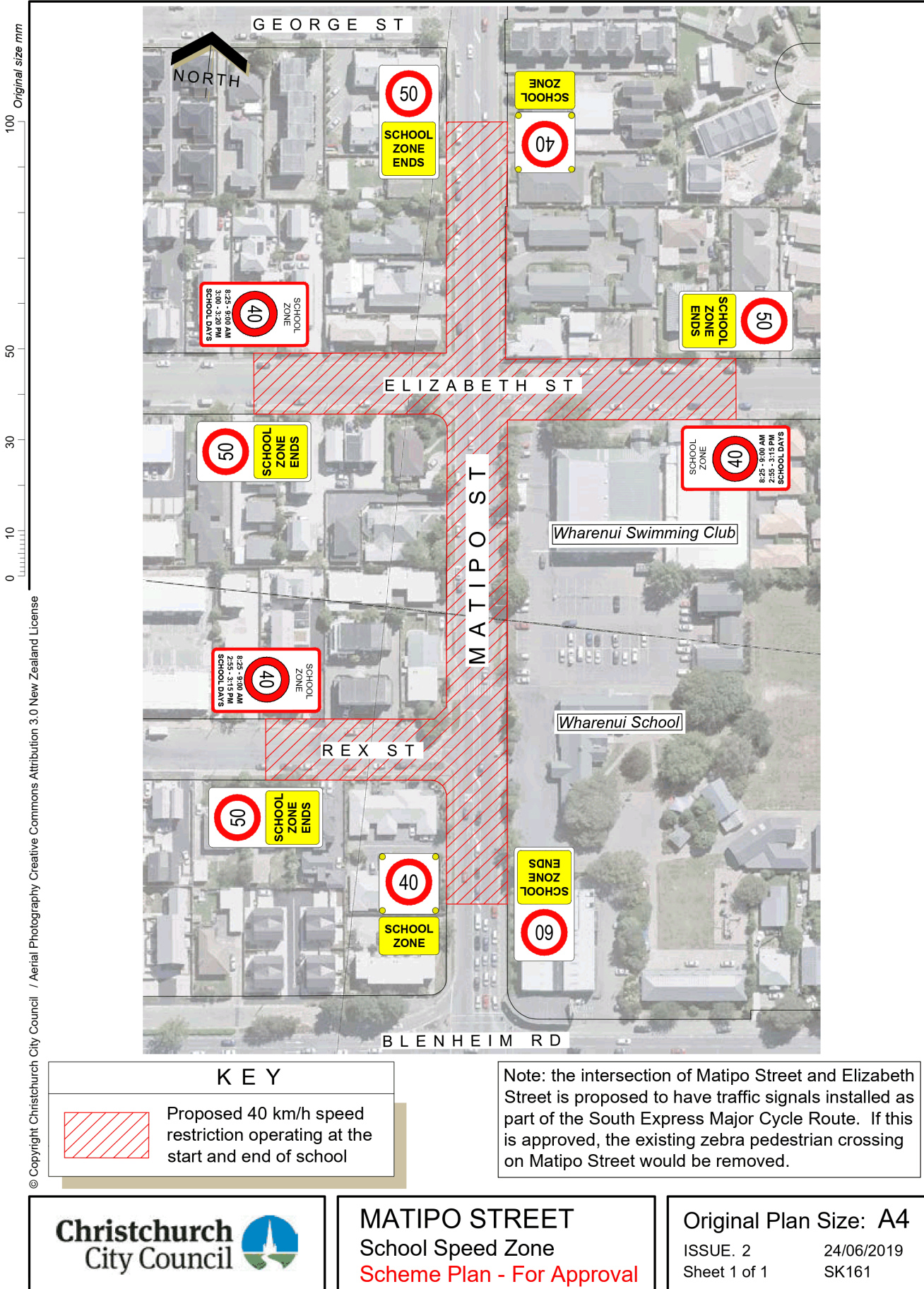


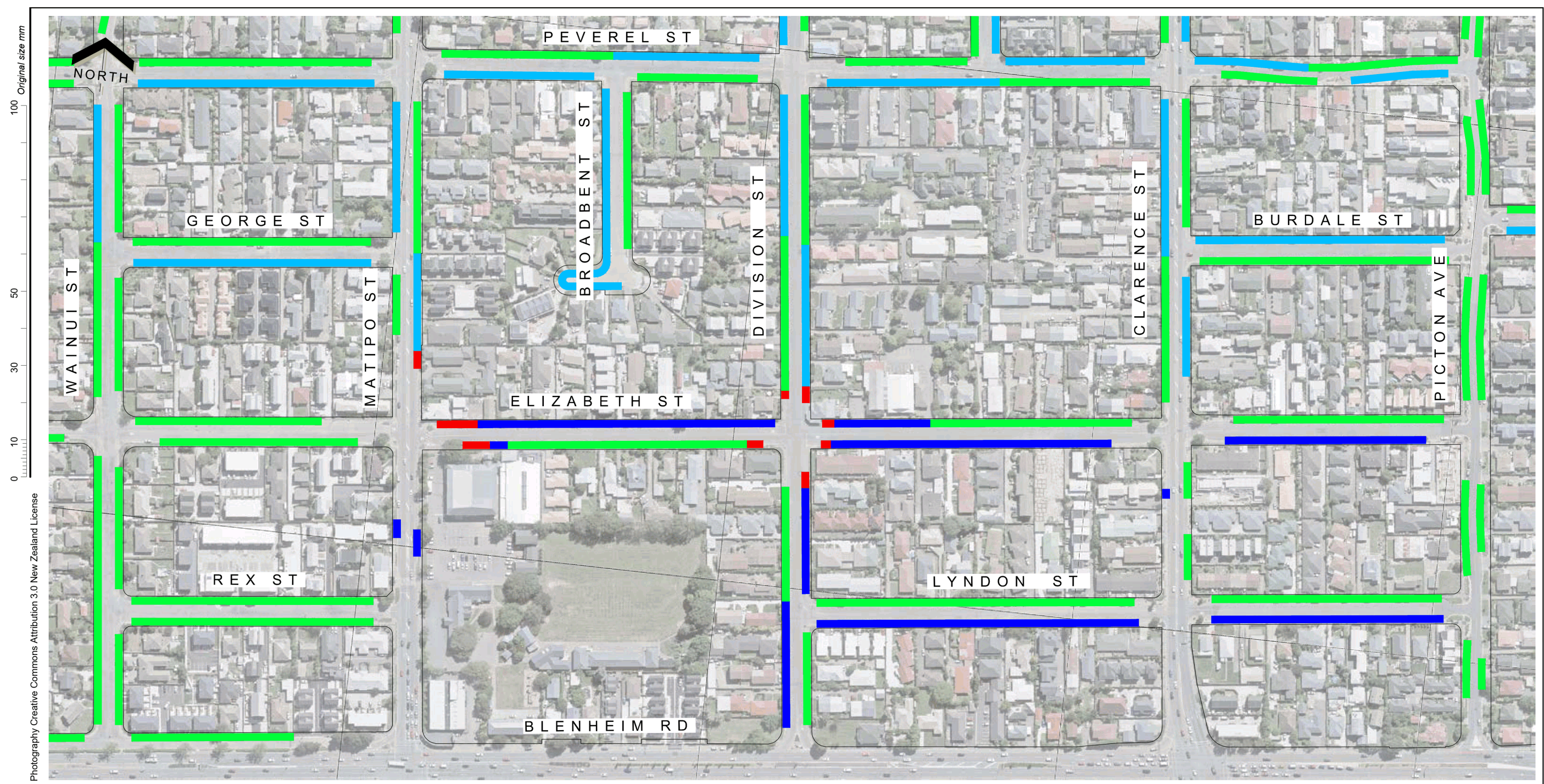


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KEY	
█	Proposed P10 parking restriction
█	Proposed P120 parking restriction
█	Existing P5 Loading Zone
█	Existing P120 parking restriction
█	Existing unrestricted parking

South Express Major Cycle Route – changes following consultation

Sheet 1 – Jones Road

Key design changes to the proposed cycleway on this section of Jones Road:

1. The shared path will be extended to Dawsons Road to join the future Selwyn District Council shared path.

Sheet 2 – Jones Road and Railway Terrace

No changes are proposed to the design of the cycleway on this sheet.

Sheet 3 – Railway Terrace, Kirk Road and Waterloo Road

Key design changes to the proposed cycleway on this section of Railway Terrace, Kirk Road and Waterloo Road:

1. The signalised crossing over Kirk Road has been removed to move the cycleway away from between these busy intersections. The shared path will stay on the southern side of Waterloo Road and cross Kirk Road at a 2.5 m wide refuge island to the north of the railway.
2. Keeping the shared path on the southern side of Waterloo Road means that the crossing over Waterloo Road and the shared path on the northern side are removed, as they are no longer required. This change also results in two parking spaces on the eastern side of Waterloo Road and six parking spaces on the northern side of Waterloo Road being retained.

Sheet 4 – Waterloo Road

No changes are proposed to the design of the cycleway on this sheet.

Sheet 5 – Waterloo Road

No changes are proposed to the design of the cycleway on this sheet.

Sheet 6 – Waterloo Road

No changes are proposed to the design of the cycleway on this sheet.

Sheet 7 – Waterloo Road

No changes are proposed to the design of the cycleway on this sheet.

Sheet 8 – Waterloo Road

No changes are proposed to the design of the cycleway on this sheet.

Sheet 9 – Waterloo Road

Key design changes to the proposed cycleway on this section of Waterloo Road:

1. The width and alignment of the shared path around Islington Avenue has been improved, to make it easier for cyclists to navigate.
2. Existing and future accessways in the Waterloo Business Park will be improved with signage and markings where appropriate.

Sheet 10 – Waterloo Road

Key design changes to the proposed cycleway on this section of Waterloo Road:

1. Existing and future accessways in the Waterloo Business Park will be improved with signage and markings where appropriate.

Sheet 11 – Waterloo Road

Key design changes to the proposed cycleway on this section of Waterloo Road:

1. Existing and future accessways in the Waterloo Business Park will be improved with signage and markings where appropriate.

Sheet 12 – Waterloo Road

Key design changes to the proposed cycleway on this section of Waterloo Road:

1. Existing and future accessways in the Waterloo Business Park will be improved with signage and markings where appropriate.

Sheet 13 – Waterloo Road

Key design changes to the proposed cycleway on this section of Waterloo Road:

1. Existing and future accessways in the Waterloo Business Park will be improved with signage and markings where appropriate.

Sheet 14 – Waterloo Road

No changes are proposed to the design of the cycleway on this sheet.

Sheet 15 – Waterloo Road

Key design changes to the proposed cycleway on this section of Waterloo Road:

1. Cycle stands will be provided outside Islington shops. The location of stands will be agreed with business owners during the detailed design phase.
2. The parking lane opposite the Islington shops has been widened to 2.5 m to make it easier for larger vehicles to stop at the shops. The parking lane outside the shops will be approximately 2.8 m wide.

Sheet 16 – Waterloo Road (Gilberthorpes Road intersection)

Key design changes to the proposed cycleway on this section of Waterloo Road:

1. The pedestrian refuge island to the west of Gilberthorpes Road has been shifted towards the intersection to improve access to and from the garage forecourt.
2. Both Waterloo Road approaches to Gilberthorpes Road have been widened to allow two cars to sit side-by-side at the intersection.

Sheet 17 – Waterloo Road

No changes are proposed to the design of the cycleway on this sheet.

Sheet 18 – Waterloo Road and Hei Hei Road

Key design changes to the proposed cycleway on this section of Waterloo Road and Hei Hei Road:

1. The proposed refuge island outside the access to Kyle Park has been removed; the existing refuge island to the west of Taurima Street will remain. This creates easier vehicle access into Kyle Park, and retains three additional parking spaces - two on the northern side and one on the southern side of Waterloo Road.
2. Parking on the northern side of Waterloo Road outside Hornby Primary School and Hornby High School has been designated P3 for school pick-up/drop-off parking between 8:15am-9:15am and 2:30pm-3:30pm.
3. A connection will be provided to the future library and service centre in Kyle Park.

Sheet 19 – Hei Hei Road

Key design changes to the proposed cycleway on this section of Hei Hei Road:

1. The intersection of Wycola Avenue with Hei Hei Road has been widened from the original design to make turns easier for delivery vehicles.
2. The cycleway has been narrowed to 3 m for approximately 50 m opposite Wycola Avenue to create a 1.5 m wide refuge in the separator for people to stand in whilst waiting to cross the road or the cycleway.

Sheet 20 – Hei Hei Road

Key design changes to the proposed cycleway on this section of Hei Hei Road:

1. The refuge island outside St Bernadette's School has been removed and replaced with kerb buildouts and a "kea" school crossing. This adds six additional parking spaces on the western side of Hei Hei Road.
2. The existing school bus stop has been converted to a P5 loading zone, which can be used for school and church pick-up and drop-offs when not occupied by a bus.
3. Seven parking spaces have been added on the eastern side of Hei Hei Road adjacent to the St Bernadette's School playing field.

Sheet 21 – Hei Hei Road

Key design changes to the proposed cycleway on this section of Hei Hei Road:

1. The intersection of Aurora Street and Hei Hei Road has been widened from the original design to make turns easier for buses. The buildout for the pedestrian crossing point on the southern side of Hei Hei Road has been removed to allow for the intersection widening. The extent of no stopping on the southern side of Aurora Street has also been extended to the driveway of No. 1 Aurora Street.
2. The cycleway has been narrowed to 3 m for approximately 50 m opposite Aurora Street to create 1.5 m wide refuges in the separator for people to stand in whilst waiting to cross the road or the cycleway.

Sheet 22 – Hei Hei Road and Buchanans Road

Key design changes to the proposed cycleway on this section of Hei Hei Road and Buchanans Road:

1. The bus stops on Hei Hei Road have been shifted onto Buchanans Road. This creates two parking spaces on the western side of Hei Hei Road and three on the eastern side adjacent No. 126, however it does result in the loss of five parking spaces at the new bus stop locations further down Buchanans Road.
2. The kerb buildout on Buchanans Road has been modified to create two parking spaces outside No. 171 Buchanans Road.
3. The cycle and pedestrian crossing over Buchanans Road has been re-designed to make the crossing easier for pedestrians to use. As a result of this, the crossing has also been narrowed to 4 m in order to keep the traffic signal poles a safe distance from driveways.

Sheet 23 – Buchanans Road

Key design changes to the proposed cycleway on this section of Buchanans Road:

1. A raised platform has been added at the cycle and pedestrian crossing over Vanguard Drive to slow vehicles, making it safer for people walking and cycling. A “give way” control has also been added to the intersection.
2. The alignment of the footpath crossing point over Buchanans Road has been improved by shifting it away from the corner, making it safer for pedestrians.
3. The bus stops adjacent to and opposite Vanguard Drive are removed following the relocation of the Hei Hei Road bus stops to Buchanans Road, approximately 120 metres away. A new bus shelter will be located beside 148 Buchanans Road.

Sheet 24 – Carmen Road

No changes are proposed to the design of the cycleway on this sheet.

Sheet 25 – Transmission Corridor

Key design changes to the proposed cycleway on this section of the transmission corridor:

1. The shared path has been realigned to be further from the southern residential property boundaries.

Sheet 26 – Transmission Corridor

Key design changes to the proposed cycleway on this section of the transmission corridor:

1. The shared path is realigned to be further from the property boundaries to the south.

Sheet 27 – Transmission Corridor

Key design changes to the proposed cycleway on this section of the transmission corridor:

1. The shared path is realigned to be further from the property boundaries to the south.

Sheet 28 – Transmission Corridor and Paparua Stream Reserve

No changes are proposed to the design of the cycleway on this sheet.

Sheet 29 – Paparua Stream Reserve and Epsom Road

Key design changes to the proposed cycleway on this section of Paparua Stream Reserve and Epsom Road:

1. The layout of the shared path at the entrance to Paparua Stream Reserve has been improved by widening it at the transition between the reserve and the road.
2. A flush median has been provided on Epsom Road, to make it safer and easier for drivers to turn into properties along this road. The road has been widened by a further 0.6 m around the pedestrian and cycle crossing.
3. The cycle and pedestrian crossing over Epsom Road has been re-designed to make the crossing easier for pedestrians to use. As a result of this, the crossing has also been narrowed to 4 m in order to keep the traffic signal poles a safe distance from driveways. The position of the crossing is such that manoeuvre space into and out of driveways is maximised.
4. The footpath and berm have been rearranged to provide adequate space for rubbish bins.

Sheet 30 – Epsom Road and Middlepark Road

Key design changes to the proposed cycleway on this section of Epsom Road and Middlepark Road:

1. A flush median has been provided on Epsom Road, to make it safer and easier for drivers to turn into properties and side roads along the road.
2. The intersection of Epsom Road and Middlepark Road has been redesigned to make the turn easier for buses and other large vehicles. The radius of the cycleway is also eased at this location, making it easier for people cycling to negotiate. The pedestrian waiting space between the cycleway and road is maintained.

Sheet 31 – Middlepark Road

No changes are proposed to the design of the cycleway on this sheet.

Sheet 32 – Middlepark Road

Key design changes to the proposed cycleway on this section of Middlepark Road:

1. The raised platform crossing point has been widened from 4 m to 6 m to make it easier for cyclists to use.

Sheet 33 – Middlepark Road and Craven Street

Key design changes to the proposed cycleway on this section of Middlepark Road and Craven Street:

1. The pedestrian refuge island on the western side of the Middlepark Road approach to the roundabout has been relocated to make property access easier.
2. The cycleway has been widened around the corner of Middlepark Road and Craven Road to make it safer for cyclists.

Sheet 34 – Craven Street and Main South Road

Key design changes to the proposed cycleway on this section of Craven Street:

1. The crossing point has been moved away from Main South Road, closer to Algidus Street. This avoids the cycleway running past the vehicle access to Our Lady of Victories School.
2. A 3 m wide two-way separated cycleway now runs along the eastern side of Craven Street from the new crossing point to Main South Road.
3. A parking space outside No. 15 Craven Street has been removed to accommodate the road alignment and allow good visibility from the cycleway crossing.
4. The amount of on-street parking on the eastern side of Craven Street has been reduced to ensure good visibility at driveways with the cycleway being on that side of the road, however the amount of parking on the western side is increased. This effectively makes this alternative design neutral for parking along the street.
5. The bus stop outside Our Lady of Victories School has been removed and replaced with a loading zone, which can still be used for buses for school trips. The Metro bus stop opposite Algidus Street is less than 150 m away.
6. The road has been widened and kerb lines have been eased at the intersection with Main South Road to allow two cars to sit side-by-side at the intersection and to make turns easier for larger vehicles.
7. The radius of the cycleway around the corner has increased, making it easier for people on bikes to negotiate.

Sheet 35 – Main South Road

Key design changes to the proposed cycleway on this section of Main South Road:

1. The cycleway has been widened to 2.75 m on the northern side of Main South Road to make it more comfortable for people cycling.
2. The shared path space on the northern side of the crossing has been widened to allow more space for the different path users.
3. The kerb buildouts around Colman Avenue have been extended. This allows an additional parking space to be provided outside No. 82 Main South Road.

Sheet 36 – Main South Road

No changes are proposed to the design of the cycleway on this sheet.

Sheet 37 – Main South Road (Curletts Road intersection)

Key design changes to the proposed cycleway on this section of Main South Road:

1. A P120 (two hour) parking time restriction has been added to the northern side of Main South Road, between Curletts Road and Riccarton Road. All parking time restrictions apply between the hours of 8am and 6pm, seven days a week, unless otherwise stated on the sign.
2. The raised median island has been extended further to the east on Main South Road.

Sheet 38 – Main South Road and Riccarton Road

Key design changes to the proposed cycleway on this section of Main South Road and Riccarton Road:

1. A P120 (two hour) parking time restriction has been added to the northern side of Main South Road, between Curletts Road and Riccarton Road. All parking time restrictions apply between the hours of 8am and 6pm, seven days a week, unless otherwise stated on the sign.

Sheet 39 – Ballantyne Avenue and Haynes Avenue

Key design changes to the proposed cycleway on this section of Ballantyne Avenue:

1. Parking is now permitted on most of the eastern side of Ballantyne Avenue south of Haynes Avenue overnight (6pm-8am) and on weekends, retaining 14 parking spaces during these times.
2. The raised platform north of Haynes Avenue has been removed. This creates two additional parking spaces.
3. The raised platform south of Owens Terrace has been removed. This creates two additional parking spaces.

Sheet 40 – Ballantyne Avenue and Suva Street

Key design changes to the proposed cycleway on this section of Ballantyne Avenue and Suva Street:

1. Parking is now permitted on the eastern side of Ballantyne Avenue between 6pm-8am and on weekends.
2. The width and alignment of cycleway connection between Ballantyne Avenue separated cycleway on Suva Street has been improved to make it safer and easier to use for cyclists.
3. Direct access on and off the cycleway from the western end of Suva Street has been created.
4. The cycleway along Suva Street has been widened to 2.8 m width to make it safer and more comfortable for cyclists.

Sheet 41 – Suva Street

Key design changes to the proposed cycleway on this section of Suva Street:

1. The cycleway along Suva Street has been widened to 2.8 m to make it safer and more comfortable for cyclists.

Sheet 42 – Suva Street

The South Express MCR will follow the approved Nor'West Arc MCR cycleway through this section of Suva Street.

Sheet 43 – Suva Street, Middleton Road and Middleton Park

The South Express MCR will follow the approved Nor'West Arc MCR cycleway through this section of Suva Street.

Key design changes to the proposed cycleway on this section of Middleton Road and Middleton Park:

1. Cycle stands will be installed at the corner of Suva Street and Middleton Road.
2. The tree on the western side of Middleton Park (near the crossing) will be retained.

Sheet 44 – Middleton Park and Lochee Road

Key design changes to the proposed cycleway on this section of Middleton Park and Lochee Road:

1. Cycle stands will be provided at Middleton Park near the playground and near Lochee Road.

Sheet 45 – Lochee Road

Key design changes to the proposed cycleway on this section of Lochee Road:

1. The crossing point has been moved closer to where the path through Middleton Park joins Lochee Road, retaining a tree that was to be removed outside the park and reducing the length of shared path along Lochee Road. This results in the loss of three additional parking spaces compared to the original design.
2. With the relocated crossing point, the cycleway on the northern side of Lochee Road would commence further west than with the original design, however the design of the remainder of the cycleway is otherwise unchanged.
3. The two trees outside No. 44 and No. 46 Lochee Road have been retained. This results in the loss of four on-street parking spaces.
4. The tree outside No. 52 Lochee Road has been retained. This results in the loss of two on-street parking spaces.

The original design resulted in the loss of approximately 12 of the 37 existing on-street parking spaces on Lochee Road between Golden Elm Lane and Wharenui Road. The revised design to avoid removing any trees along Lochee Road would result in the removal of 21 of the 37 existing on-street parking spaces.

Sheet 46 – Lochee Road, Wharenui Road and Peverel Street

Key design changes to the proposed cycleway on this section of Lochee Road, Wharenui Road and Peverel Street:

1. The no stopping lines outside 58 Wharenui Road have been removed, creating two additional parking spaces.

Sheet 47 – Peverel Street

Key design changes to the proposed cycleway on this section of Peverel Street:

1. Two new pedestrian crossing points have been added between Tika Street and Harrington Park, alongside a garden area between the cycleway and the road at this location.
2. One additional parking space has been added on Peverel Street to the east of Tika Street.

Sheet 48 – Peverel Street, Centennial Avenue and Elizabeth Street

Key design changes to the proposed cycleway on this section of Peverel Street, Centennial Avenue and Elizabeth Street:

1. The cycleway will have priority over road traffic at the intersection of Huia Street with Centennial Avenue to reduce delay for people cycling.

Sheet 49 – Elizabeth Street

Key design changes to the proposed cycleway on this section of Elizabeth Street:

1. A parking space has been created outside No. 110 Elizabeth Street.

Sheet 50 – Elizabeth Street (Matipo Street intersection)

Key design changes to the proposed cycleway on this section of Elizabeth Street:

1. The traffic lanes on Elizabeth Street have been altered to allow additional parking to be provided on both sides of Elizabeth Street.
2. The two parking spaces created on the northern side, outside the Matipo Street Food Market and Hamilton Motors. These are P10 spaces; designated for 10-minute parking.
3. The two parking spaces designated P10 in the original design are now designated P120, two-hour parking.
4. Two parking spaces have been created on the southern side, outside the seating area by the Wharenui Pool. The P5 Loading Zone is shifted west into these spaces, with two P120 spaces created in the resultant space.
5. Two-hour parking has been provided on one side of Elizabeth Street and Matipo Street..
6. The grass berm on Matipo Street has been removed, and the footpath widened between Elizabeth Street and the Wharenui School pedestrian entrance.
7. 2.8 m wide cycleways are provided on both approaches to Matipo Street, making the cycleway safer and more comfortable (the east approach was previously 2.5 m wide).
8. A 40km/h speed zone on Matipo Street, between Blenheim Road and 57 Matipo Street, has been put in place to make it safer for school children. The 40km/h speed restriction will operate for 30 minutes during the morning school drop off and afternoon pick up times. Outside of these times, the existing 50km/h will apply.

Sheet 51 – Elizabeth Street (Division Street intersection)

Key design changes to the proposed cycleway on this section of Elizabeth Street:

1. An additional parking space has been created on the southern side of Elizabeth Street, opposite the Division Street Dairy. This is designated as a P10 space.

2. Two P10 parking spaces have been provided on the eastern side of Division Street outside the Division Street Dairy – these were P120 spaces in the initial design.
3. Two-hour parking has been provided on one side of Elizabeth Street, Division Street and Clarence Street to help ensure on-street parking is available for people visiting the area. Refer also to the Central Riccarton area parking time restrictions consultation plan for further details.

Sheet 52 – Elizabeth Street (Clarence Street intersection)

Key design changes to the proposed cycleway on this section of Elizabeth Street:

1. Two-hour parking has been provided on one side of Elizabeth Street, Division Street and Clarence Street to help ensure on-street parking is available for people visiting the area. Refer also to the Central Riccarton area parking time restrictions consultation plan for further details.

Sheet 53 – Elizabeth Street and Picton Avenue

Key design changes to the proposed cycleway on this section of Elizabeth Street and Picton Avenue:

1. The footpath and cycleway have been re-designed to create a better path alignment for pedestrians and people cycling.
2. Two trees will be replaced outside No. 32 Picton Avenue. Note that this relies on onsite verification of the location of underground services.

Sheet 54 – Picton Avenue and Blenheim Road

Key design changes to the proposed cycleway on this section of Picton Avenue and Blenheim Road:

1. Three trees will be replaced opposite Lyndon Street. Note that this relies on onsite verification of the location of underground services.

Sheet 55 – Blenheim Road, Mandeville Street and Lowe Street

No changes are proposed to the design of the cycleway on this sheet.

Sheet 56 – Old Blenheim Road

No changes are proposed to the design of the cycleway on this sheet.

South Express cycleway social media report

<https://www.ccc.govt.nz/the-council/consultations-and-submissions/haveyoursay/show/215>

Date 24/04/19



Performance broken down by platform:



Facebook:

Number of CCC wall posts: 4
People reached: 76,191+
Total engagement: 995+
Groups targeted: Riccarton, Hornby
Post clicks on CCC: 4799



Neighbourly:

Number of wall posts: 5
Neighbourhoods targeted: Hornby,
Riccarton
Followers: 64,930



Website:

Total page views: 4933
Unique page views: 3341
Average time on page: 4min22
Bounce rate: 70%
Main Referrer: Google, Facebook
mobile, Direct, [Stuff article desktop](#)

Campaign summary:

Objectives: Consult the public on the designs and routes of a new 16km cycleway from central city to Templeton.

Total spend: \$200

Platforms utilised: Facebook, targeted Facebook community groups, Neighbourly, Twitter


Top performing posts

Christchurch City Council
January 28 · 🌐

We're proposing the route for the cycleway that will run from Templeton through Hornby, to Riccarton, all the way to Hagley Park... and we want to hear your thoughts!

Read more on the proposed major cycleway route here at Newsline: <https://bit.ly/2Sev02k>

Please share your thoughts on the South Express Cycleway design and route here: <https://bit.ly/2HBoPkP>



CCC.GOV.T.NZ
Plans released for new South Express cycleway [Learn More](#)

Consultation has begun on the proposed route for a maj...

23,317 People Reached **3,804** Engagements [Boost Again](#)

Boosted on Jan 28, 2019
By Monique Steele Completed

People Reached	6.4K	Landing Page Views	111
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[View Results](#)

👍👍👍 148 103 Comments 15 Shares

👍 Like 💬 Comment ➦ Share

Christchurch City Council
February 11 · 🌐

Want to find out more about the South Express cycleway that runs from Templeton to the central city?
Come along to our information session on Tuesday 12 February – 5pm to 7pm at the Wharenui Recreation Centre.
There are also two more to come.
For more info: <https://bit.ly/2B0nxUZ>



CCC.GOV.T.NZ
South Express Major Cycle Route – Puari ki Niho-toto [Learn More](#)

18,416 People Reached **795** Engagements [Boost Again](#)

Boosted on Feb 11, 2019
By Emily Murphy Completed

People Reached	7.3K	Post Engagement	220
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[View Results](#)

👍👍👍 118 20 Comments 10 Shares

👍 Like 💬 Comment ➦ Share

Christchurch City Council
March 30 at 12:30 PM · 🌐

We've extended the deadline for people to have their say on the South Express Cycleway. Let us know what you think about the design and route of the 16km cycleway connecting town to Templeton.
Consultation closes 3 April, so make a submission if you haven't already!



CCC.GOV.T.NZ
South Express Major Cycle Route – Puari ki Niho-toto [Learn More](#)

18,416 People Reached **795** Engagements [Boost Again](#)

Boosted on Mar 30, 2019
By Monique Steele Completed

People Reached	9.1K	Landing Page Views	180
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[View Results](#)

👍👍👍 Blair McConnell, Kiko Qin and 40 others 16 Comments 6 Shares

👍 Like 💬 Comment ➦ Share

Total Facebook post breakdown

DATE	FACEBOOK, NEIGHBOURLY	FB REACH	FB ENGAGEMENT	FB POST CLICKS	FB SPEND
28/01	We're proposing a cycleway running from Templeton through Hornby, to Riccarton, all the way to Hagley Park... and we want to hear your thoughts! Read more on the proposed major cycleway route here at Newsline: https://bit.ly/2Sev02k Please share your thoughts on the South Express Cycleway project here: https://bit.ly/2HBoPkP	23,317	529	3275	\$50
08/02	TARGETED We're planning changes to some intersections in Riccarton. The changes aim to reduce traffic, making these streets safer for cyclists and quieter for residents. It also helps to keep some parking. Have a look at the designs and have your say .				\$0
11/02	Want to find out more about the South Express cycleway running from Templeton to the central city? We've got an information session tomorrow, with two more to come. Find out more: https://bit.ly/2HBoPkP	17,591	231	607	\$50
20/02	Don't forget, we have two more information sessions coming up on the South Express cycleway running from Templeton to the central city. Come and talk to us about the proposal. - Thursday 21 February, 5pm to 7pm at Riccarton Library. - Monday 25 February, 5.30 to 7.30 at Hornby Primary School. Find out more: https://bit.ly/2HBoPkP	16,867	49	308	\$50
30/03	We've extended the deadline for people to have their say on the South Express Cycleway. Let us know what you think about the design and route of the 16km cycleway connecting town to Templeton. Consultation closes 3 April, so make a submission if you haven't already!	18,416	186	609	\$50

Sentiment, pick-up and recommendations

- The first post performed the best as it may have been the first time our followers had heard about the project and their first opportunity to react. This first post prompted 103 comments on Facebook and a lot on Neighbourly too. In total, there was an engagement rate of 995 – which means nearly 1000 people (possible repeats) either reacted or commented on this campaign. It was certainly an issue of public interest.
- The sentiment throughout the campaign was varied. The anti-cycling brigade expressed their opinions including Council’s “obsession with cyclelanes” and that “nobody wants this” and “you won’t listen anyway”. This was countered by pro-cycling residents who saw this cycleway as a great attraction connecting us to the Selwyn District, potentially improving tourism in the region.
- The main referrer was Google, but interestingly, the third main referrer was from the [Stuff article on January 30](#) once consultation had started. This proved that it was important to front-foot these kinds of consultation projects, especially before the media start reporting on them, as it allows us to be proactive with our messaging.
- Engagement informed us that locals in Hornby had taken issue with some property changes required to install the cycleway, and deterred us from posting the targeted post. This is absolutely fine, as social media plans are fluid and can change according to issues that arise unpredictably.
- Our plan was also interrupted by the Christchurch terror attacks, as we halted “business as usual” social media for one week.

Community Views and Preferences

1.0 OVERVIEW

Initial consultation on the proposed South Express cycleway route was undertaken from Friday 25 January to Thursday 3 April 2019, a period of approximately 10 weeks.

In total, 2000 consultation booklets were hand delivered to properties along the route, 750 posted to absentee property owners and information sent to approximately 250 key stakeholders, including Council service centres and libraries. Approximately 10,400 flyers were hand delivered to the wider community in the vicinity of the proposed route. The consultation distribution area is shown below in Figure 1.



Figure 1: Consultation distribution area

Three drop-in sessions were held for the proposed cycleway as follows:

Tuesday 12 February	Tuesday 21 February	Monday 25 February
Wharenui Recreation Centre	Riccarton Library	Hornby Primary School
73 Elizabeth Street	71 Main South Road	190 Waterloo Road
Riccarton	Sockburn	Hornby

The drop-in sessions attracted a total of 116 people. The project team presented a 30 minute PowerPoint presentation, which provided details of the proposed cycleway scheme. This was followed by group discussions centred on large plot plans.

In addition to the drop-in sessions, the project team presented the project to a number of community organisations and attended a number of community events. These are listed below:

Presentations

- Halswell-Hornby-Riccarton Community Board
- Central Riccarton Residents Association
- Greater Hornby Residents Association
- Oak Development Trust
- Hei Hei Broomfield Community Lunch (at 126 Hei Hei on the corner)
- Woodcote Retirement Village

Community Events

- Welcome to Riccarton community event at Harrington Park
- Rewi Alley Academy
- Riccarton Community Network Meeting

Social Media

The following platforms were utilised to engage with residents across Christchurch:

- Facebook
- Targeted Facebook
- Community groups
- Neighbourly
- Twitter

Refer social media report – Appendix M.

Posters

Posters advertising South Express consultation were displayed at 13 different sites across the proposed route. Poster sites were as follows:

- 249 Riccarton Road, Riccarton
- 48 Matipo Street (corner of Elizabeth Street), Riccarton
- 21 Dilworth St, Riccarton
- 25 Deans Avenue, Addington
- 12 Shands Road, Hornby
- 733 Main South Rd (corner of Marshs Road), Templeton
- 56 Worcester Boulevard
- 12 Shands Road, Hornby
- 1 Puriri Street, Riccarton
- 249 Riccarton Road, Riccarton
- 21 Dilworth St, Riccarton
- 25 Deans Avenue, Addington
- 48 Matipo Street (corner of Elizabeth Street), Riccarton



At the close of consultation, 642 submissions were received by Council. These were analysed as a whole and also according to specific sections of the route. A detailed analysis is contained in Section 2.0 below.

2.0 DETAILED ANALYSIS

Of the total number of respondents, 314 supported the proposal, 149 did not support the proposal, and 170 supported the proposal but had concerns. Nine submissions did not provide a response as to whether they supported or did not support the proposal.

Response Summary	General Response Results	Templeton	Islington	Hornby	Hei Hei	Broomfield	Sockburn	Upper Riccarton	Riccarton	Other in Christchurch	Outside of Christchurch	Not recorded	Totals	%
	I support the plan	12	5	16	22	7	12	18	36	158	28	0	314	49%
	I support the plan and have some concerns	15	5	15	12	4	20	12	24	37	4	1	149	23%
	I Do not support the plan	5	7	22	11	3	18	17	35	40	11	1	170	26%
	No indication for or against	1	0	0	0	1	4	1	0	0	1	1	9	1%
	Total	33	17	53	45	15	54	48	95	235	44	3	642	100.0%
		5%	3%	8%	7%	2%	8%	7%	15%	37%	7%	0%	100%	

Figure 2: General submitter response

We received 106 submissions from people who live or own property along the route (i.e. streets where the cycleway is proposed to be located). The results are shown in the pie chart below. Of those submitters, 21% supported the scheme, 32% supported the scheme but had some concerns and 41% did not support the scheme. 6% of submitters did not provide a response.

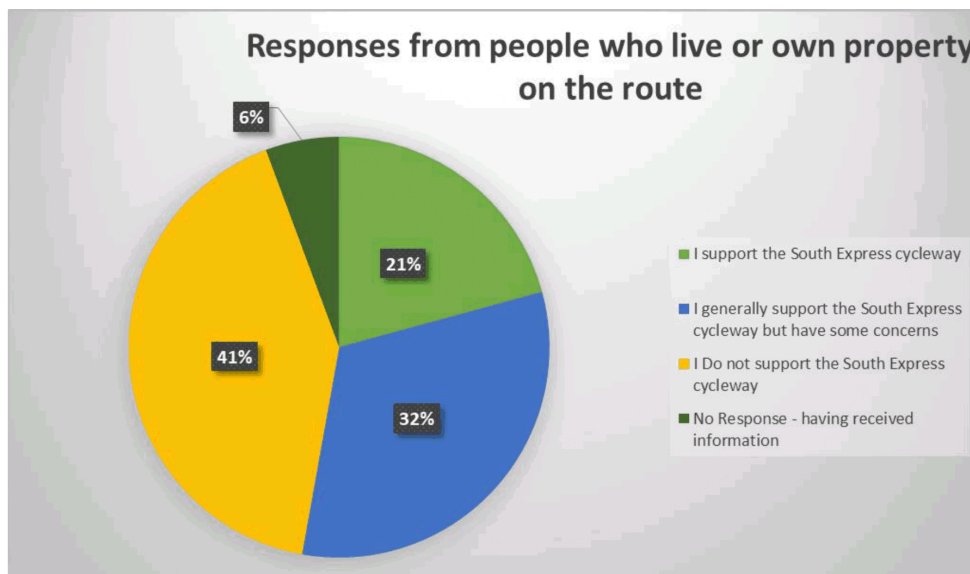


Figure 3: General response – People who live or own property on the route

2.1 Key Concerns

Key concerns identified by all submitters are shown in Figure 4 below. Concerns about the projects value for money, residential parking loss, route design and local impacts are evident.

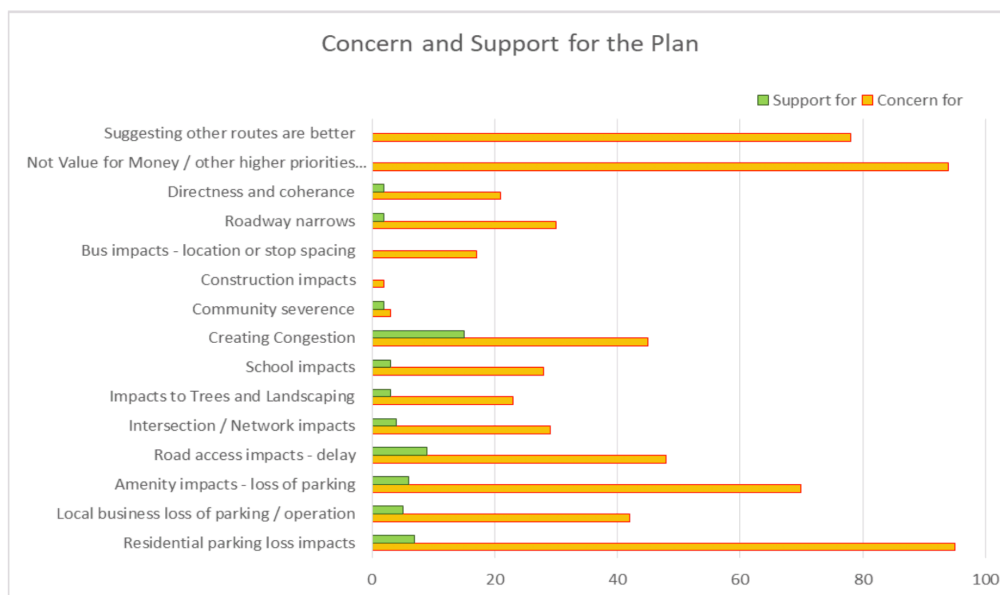


Figure 4: Key concerns – all submitters

Figure 5 below highlights the key concerns of people who live or own property along the route. Concerns about the loss of residential parking, road access impacts, route selection and amenity impacts (loss of parking for schools, churches, community organisations etc.) are evident.

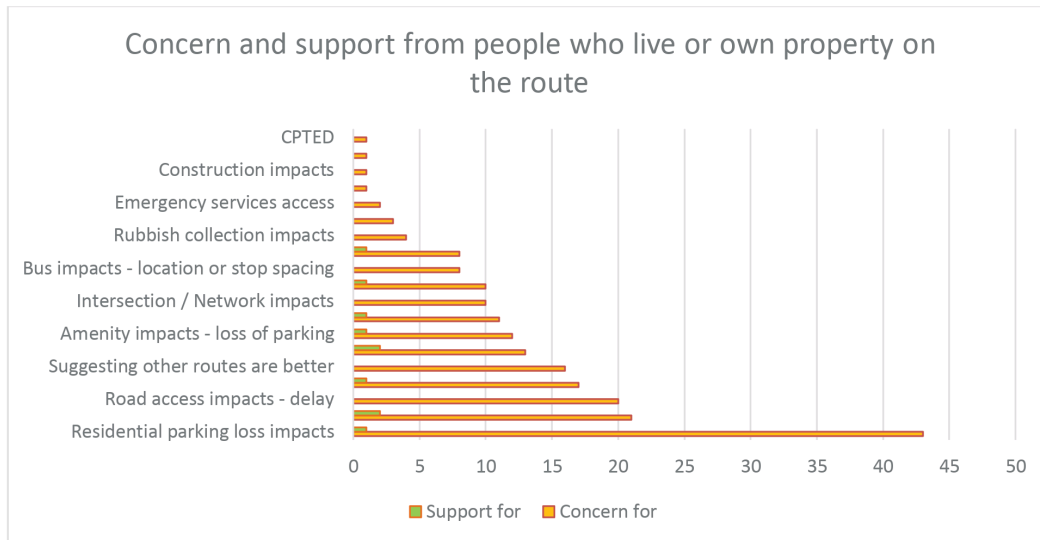


Figure 5: Key concerns – people who live on streets along the route

2.2 Key Benefits

Key benefits identified by submitters are shown in Figure 6 below. Better cyclist safety, encouraging new riders and the promotion of an alternative transport mode are seen as the key benefits of the project.

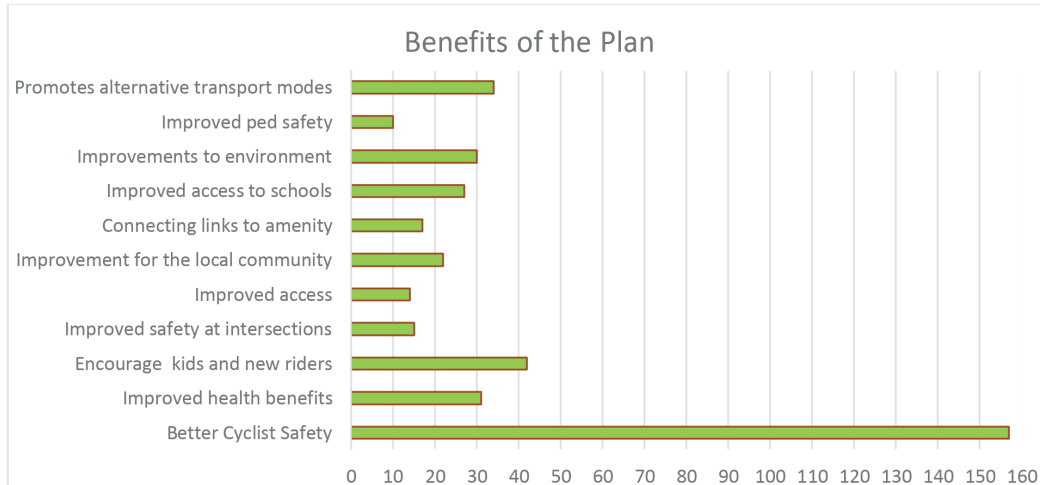


Figure 6: Key benefits – all submitters

2.3 Elizabeth Street

Seventy-eight submissions were received that made mention of the proposed design along Elizabeth Street. Of these submissions, 26% supported the proposed cycleway, 45% supported with concerns and 29% did not support the proposed cycleway. Key concerns raised by these submitters are shown in Figure 7 below and include value for money,

directness, the diversion at Division Street, impacts on the school and local community facilities, and loss of business / parking for local businesses.

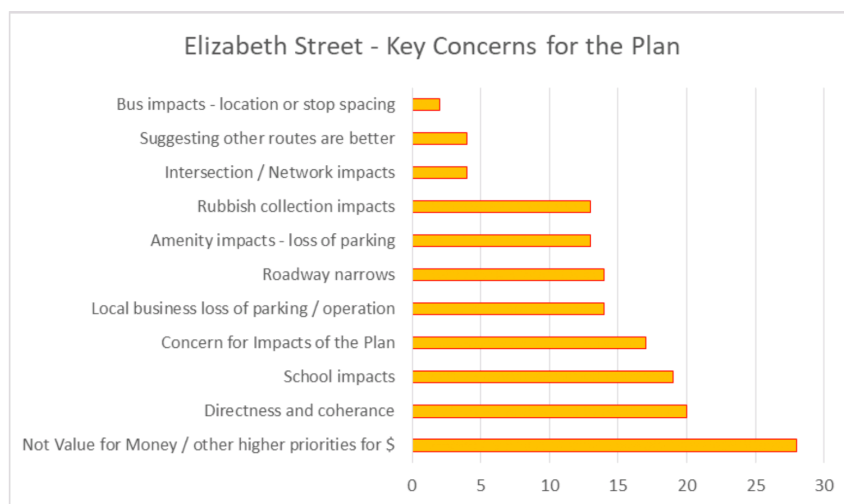


Figure 7: Elizabeth Street – key concerns

2.4 Lochee Road

Nineteen submissions were received that made mention of the proposed cycleway design along Lochee Road. Of these submissions, 79% did not support the cycleway and 21% supported but had some concerns. The main concern noted by submitters are shown in Figure 8 below and include loss of residential parking and impacts to trees and landscaping.

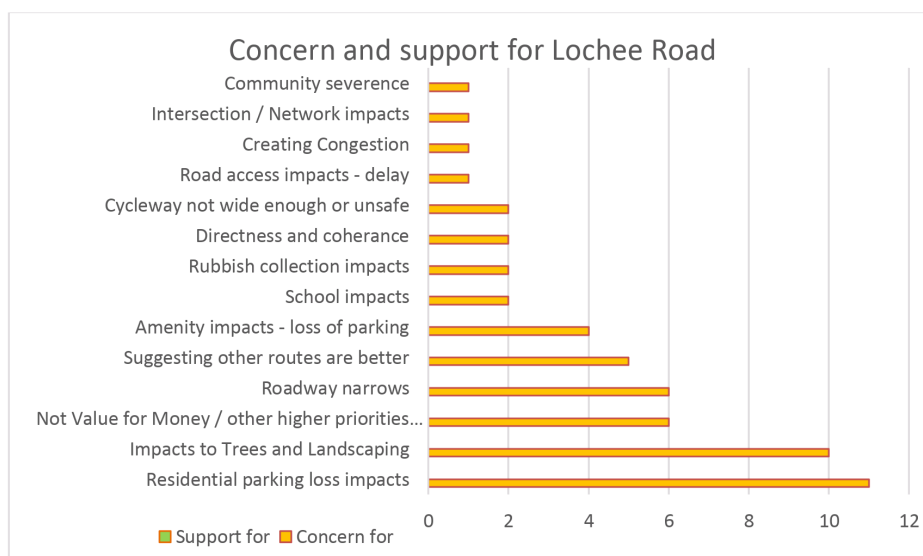


Figure 8: Lochee Road – key concerns

2.5 Epsom Road / Middlepark Road

Thirty-five submissions were received that made mention of the proposed cycleway design along Epsom Road and / or Middlepark Road. Of these submissions, 1 supported the cycleway, 20 did not support the cycleway and 14 supported the cycleway but had some

concerns. The main concerns noted by the submitters included loss of residential parking, route selection, value for money and an increase in congestion as a result of the cycleway.

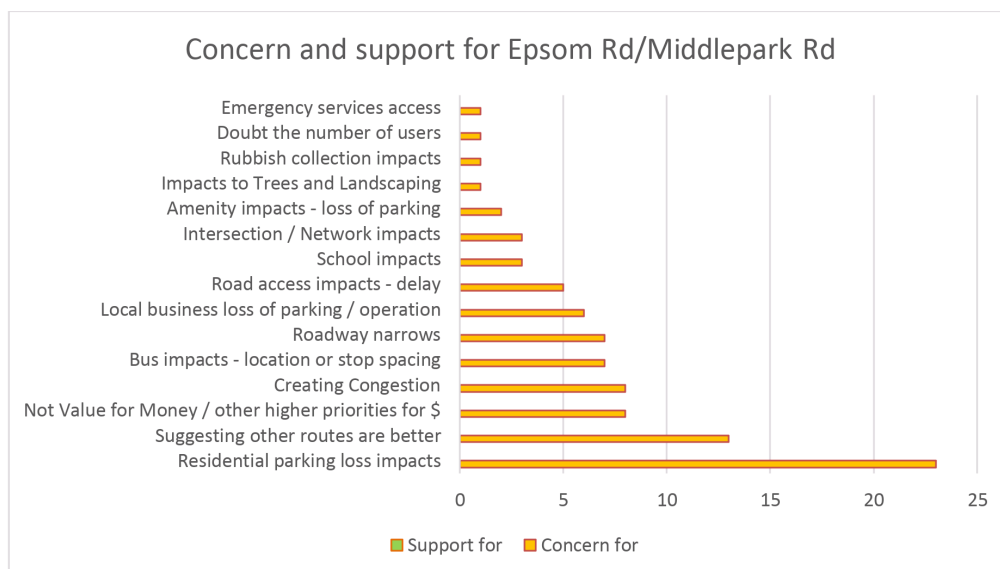


Figure 9: Epsom Road / Middlepark Road – key concerns

2.6 Hei Hei Road

Sixty-one submissions were received that made mention of the proposed cycleway design along Hei Hei Road. Of these submissions, 8% supported the proposed cycleway, 35% supported with concerns and 57% did not support the proposed cycleway. Key concerns raised by these submitters are shown in Figure 10 below and include loss of parking (residential and amenity), value for money, impacts on schools.

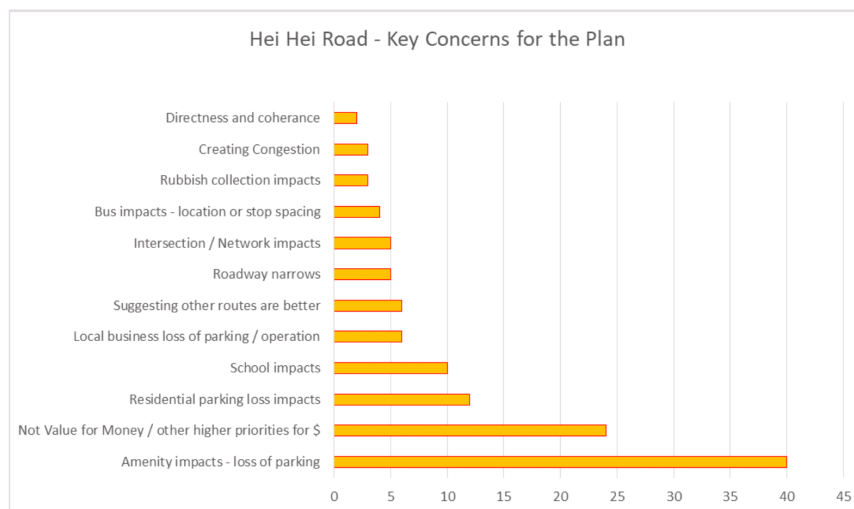


Figure 10: Hei Hei Road – key concerns

3.0 TARGETED ENGAGEMENT

Following feedback on the initial cycleway design, additional engagement was undertaken on a number of specific aspects of the route design. This is detailed below:

3.1 Relocation and rationalisation of bus stops on Buchannan's Road

Following feedback from the Hei Hei Broomfield Community Development Trust and a number of other submitters, changes to the cycleway design have been made to increase parking adjacent to the community centre at 126 Hei Hei Road. By relocating the existing bus stops from Hei Hei Road to Buchanans Road, an additional seven carparks can be created for the users of this facility.

Consultation was undertaken with the owners and occupiers of the following properties:

- **New bus stops beside 148 and 169 Buchanans Road** - 146, 148, 150, 165, 167, 169, 171 Buchanans Road
- **Properties beside where the bus stop is being relocated from** - 99 Hei Hei Road, 175 Buchanans Road (units 1-4) and 126 Hei Hei Road.
- **Removal/rationalisation of the bus stops beside 153 Buchanans Road and opposite 151 Buchanans Road** - 151, 153 and 155 Buchanans Road

Three submissions were received from the owners / occupiers of the above properties. In addition, two submissions were received from residents along Buchanans Road who did not receive the consultation material due to their properties not deemed to be affected by the proposed changes.

All three submissions from directly affected residents supported the proposed bus changes. The two additional submissions from residents along Buchanans Road did not support the changes and they noted that car parking should not take precedent over the bus stops and the residents who use this bus service.

3.2 Middlepark Road/Taggart Place

Following consultation on the original design, which showed the proposed cycleway located on Epsom Road and continuing around the corner into Middlepark Road, a number of submitters raised Taggart Place as a potential alternative route. The cycleway design team considered this option further and sort feedback on the alternative (Taggart Place) design.

Consultation was undertaken with the owners / occupiers of properties located on Taggart Place, Epsom Road (between Taggart Place and Middlepark Road), Middlepark Road (from Epsom Road to 97 Middlepark Road) and the properties adjacent to the reserve at the end of Taggart Place.

Thirty submissions were received in response to re-engagement on the potential alternative route along Taggart Place. Of these submissions, 12 (40%) supported the alternative route and 18 (60%) did not support it. Those who did not support the alternative route were mostly residents of Taggart Place. The submitters noted that their main concerns were intersection safety, loss of a quiet, safe and private residential street, the ability of Taggart Place to accommodate a cycleway

given its narrow width, and cost of the alternative route. These submitters also considered that the original route along Middlepark Road was more direct for cyclists.

General themes from those in favour of the alternative route included:

- The alternative route avoids the Middlepark Road/Epsom Road intersection which submitter's noted had existing safety issues.
- The alternative route avoids Middlepark Road which is a high traffic environment and bus route.
- The alternative route results in less parking loss

3.3 Craven Street

A number of submissions received had concerns regarding the location of the cycleway crossing point on Craven Street. Submitters felt it was too close to the intersection with Main South Road and with the narrowing of the intersection, leaving a single lane for cars turning left or right out of Craven Street, this will lead to increased queues on Craven Street.

An alternative option was developed that moved the crossing point for the cycleway to outside 11 Craven Street, and widened the intersection at Main South Road to allow two lanes. This will impact on parking availability between the intersection and 11 Craven Street.

The existing bus stop outside the entrance to Our Lady of Victories School will change to a P5 loading zone so that it can be used for other purposes when the school bus is not using it.

A letter was sent to the directly affected residents and absentee owners in Lochee Road asking for their preference:

- Option 1 - Original design
- Option 2 - Alternative design

We received 6 submissions in response:

- Option 1 2 submission
- Option 2 3 submissions
- Neither option 1 submission (although if they had to choose it would be Option 2)

The main concern raised was the loss of residential parking in the street.

3.4 Lochee Road

The original design resulted in the loss of approximately 12 of the 37 existing on-street parking spaces on Lochee Road between Golden Elm Lane and Wharenui Road. A number of submissions received were concerned about the removal of street trees to retain on-street parking. In response to this feedback we developed an alternative plan which retained the trees, but resulted in the removal of 21 of the 37 existing on-street parking spaces.

A letter was sent to the directly affected residents and absentee owners in Lochee Road asking for their preference:

- Option 1 - Original scheme with tree removals

- Option 2 - Alternative scheme with trees retained

We received 14 submissions in response (including an alternative plan proposing a greenway – attached).

- Option 1 1 submission
- Option 2 2 submissions
- Neither option 1 submission
- Alternative route 2 submissions
- Greenway 8 submissions

There was strong support from residents of Lochee Road for no change to the street layout by either introducing a greenway, which has minimal impact to the street, or look an alternative route.

The greenway option also was feedback that was received during the initial engagement.

3.5 Elizabeth Street

A number of submissions received were concerned about the loss of parking along Elizabeth Street, the loss of community severance as a result of the Division Street diversion and the effect of the cycleway on businesses and community groups which are located on Elizabeth Street. Feedback from residents was sought two alternative options. These are detailed below:

a) Original design with minor amendments

The original option was amended to address on-street parking concerns. New short-term parking was added near the corner of Elizabeth Street and Division Street and also along Elizabeth Street.

b) Alternative option

An alternative option was developed following community feedback to maintain vehicle access along Elizabeth Street to and from Matipo Street and Division Street south. To maintain safe cycling past Division Street, and to maintain traffic volumes along Elizabeth Street, access needs to be restricted at the intersections of Division Street and Clarence Street.

Sixty-four submissions were received in response to re-engagement on the proposed changes to Elizabeth Street. Figure 11 below shows the overall level of support for each option as well as street by street responses. Overall, the original design with proposed amendments was preferred by 63% of respondents.

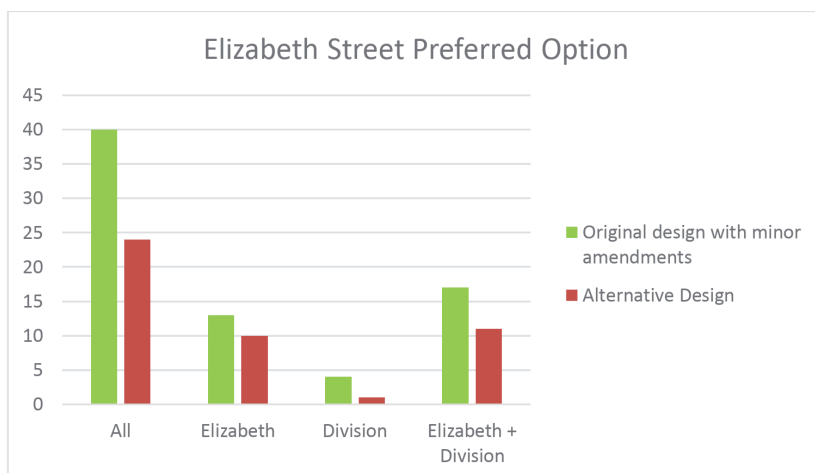


Figure 11: Elizabeth Street preferred option

3.6 Elizabeth Street/Matipo Street Intersection

In response to feedback about parking, the intersection layout has been amended to provide short term parking outside the dairy, and additional carparks outside Wharenui Pool.

The eastern Elizabeth Street approach to Matipo Street has been amended to provide a separate right turn and straight ahead lane.

We received 65 submissions in response to the re-engagement on the revised Elizabeth Street/Matipo Street intersection layout. Of the 65 submissions, 46 supported the revised design and 19 did not support it. Refer to Figure 12 below for a street by street breakdown of submissions.

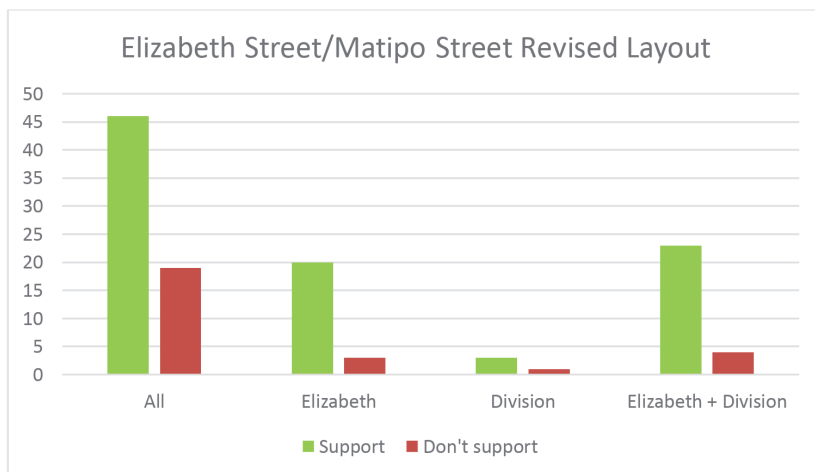


Figure 12: Elizabeth Street/Matipo Street revised layout

3.7 Proposed parking restrictions

A number of people were concerned about the high number of workers who park in the area all day. To make more parking available during the day P120 restrictions (8am to 6pm, 7 days a week) were proposed on:

- Elizabeth Street (Matipo Street to Division Street) - north side
- Elizabeth Street (Division Street to Clarence Street) - south side
- Elizabeth Street (Clarence Street to Picton Avenue) - south side
- Division Street (Blenheim Road to Lyndon Street) – west side
- Division Street (Lyndon Street to Elizabeth Street) – east side
- Lyndon Street - south side

Sixty-eight submissions were received in relation to the proposed parking restrictions on Elizabeth Street, Division Street and Lyndon Street. Figure 13 below illustrates the overall support (53%) vs do not support (47%) for the proposed changes as well as providing a street by street breakdown of submissions.



Figure 13: Parking restrictions

3.8 Wharenui School, 40km/h school speed zone

A 40km/h speed zone on Matipo Street between Blenheim Road and 57 Matipo Street was proposed to make it safer for school children. The 40km/h speed restriction will only operate for 30 minutes during the morning school drop off and afternoon pick up times. Outside of these times, the existing 50km/h will apply.

As shown in Figure 14 below, 67 submissions were received which noted a preference for the proposed 40km/h speed zone on Matipo Street. Of these submissions, 59 (88%) supported the proposed speed change, and 8 (12%) did not support the speed change.

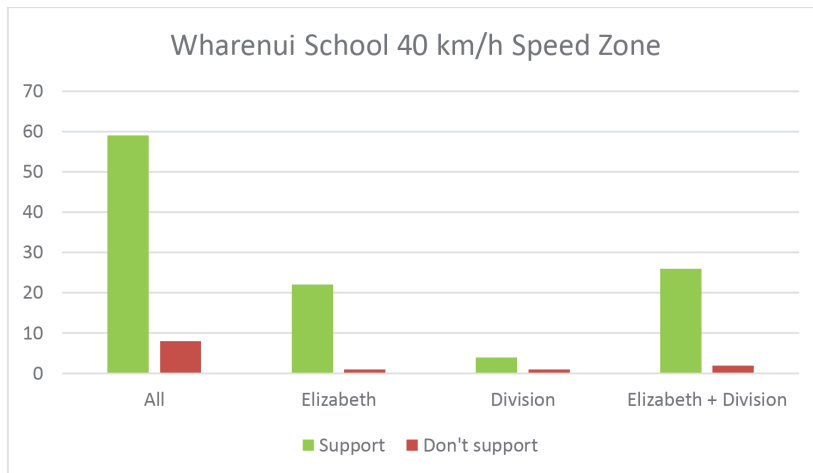


Figure 14: 40 km/h speed zone

4.0 KEY STAKEHOLDERS

4.1 Community Boards

The South Express Major Cycle Route was presented to the ITE and Waipuna/Halswell-Hornby-Riccarton Community Board on 5 October 2018. This meeting was also an opportunity for elected members to ask any questions prior to consultation.

4.2 Ministry of Education

Overall, the Ministry supports the South Express Major Cycle Route given the potential benefits that will accrue from use of the cycle route, provided that the individual concerns of the schools that have been raised are addressed in a satisfactory manner.

The Ministry encourages students, caregivers and staff to come to school by walking, cycling and scooting. The cycle route travels past nine different schools, which assists in facilitating active transport to schools. The cycle route will provide those that are less confident a safer environment to ride, and overall the proposal is envisioned to be of benefit to the schools.

The Ministry notes that Council has undertaken individual consultation with the various schools along the proposed route. Some of these schools have raised issues in respect of the cycle route and it is understood that in some cases the schools have lodged submissions in respect of these matters. The Ministry understands that the Council will continue to work with the schools on resolving these issues and it supports this approach.

4.3 Schools

There are nine schools located directly on the cycle route.

As major stakeholders and being directly affected, all schools along the route received a copy of the consultation booklet. Follow-up phone calls and emails were also made to schools to ensure they received the consultation material and to offer them an opportunity to meet with the design team to discuss any concerns.

Submissions were received from Wharenui School, Riccarton High School, St Thomas of Canterbury, St Bernadette's and Hornby Primary School. A summary of each school submission and additional consultation efforts are detailed below.

Wharenui School

Wharenui School supports the project but had concerns about the loss of parking on Elizabeth Street, the potential for the bus stop to impede the view of motorists exiting the car park, and the possibility of increased traffic volumes on Matipo Street. The school noted that they supported the lights at the Matipo / Elizabeth Street intersection.

A follow-up meeting was held with Wharenui School on 9 May 2019 to discuss the above concerns and to better understand the transport and parking requirements of the school.

The school emphasised that they fully support getting more kids on bikes and noted that the proposed cycleway runs the entire length of their school zone, thus providing a safe route to and from school for many children. Wharenui School also supported the proposed implementation of P120 parking in the area to reduce pressure on car parking spaces.

The school requested a 40 km/hr speed zone outside the school on Matipo Street and the removal of the pedestrian crossing on Matipo Street. The cycleway design has been updated to incorporate these requests.

Our Lady of Victories School and St Thomas of Canterbury School

St Thomas of Canterbury made a submission noting that they had a number of concerns with the proposed route including the increased demand for parking spaces in the area surrounding the school and congestion issues. The school considers that there is a readily available alternative route that runs from Main South Road, through the vacant Sockburn park site, onto the quiet residential streets of Takaroa Avenue and the Greenhurst Street to connect to Epsom Road. From Epsom Road, the route would follow the currently proposed cycleway route.

A combined meeting with Our Lady of Victories School and St Thomas of Canterbury School was held on Monday 11 February 2019 to discuss the proposed cycleway. Key points from this meeting are as follows:

- Concern with the proposed bus stop on Craven Street, and how much it protrudes into the road carriageway.
- Increased in congestion due to the loss of residential parking spaces.
- Suggestion that the cycle path crossing point on Craven Street should be moved further north beyond the school access way.
- St Thomas noted that they would prefer a formalised controlled crossing rather than the proposed uncontrolled raised platform.

A second meeting with both schools was held on 6 May 2019 to discuss proposed design changes to address parking and access concerns. Our Lady of Victories confirmed that they supported the proposed design changes. St Thomas' school reiterated that they want a formalised crossing to be installed outside the school. The project team has explored this option further and note that a formalised crossing does not meet the NZTA and CCC guidelines for a formalised crossing due to the existing minimal delay to pedestrians.

St Bernadette's School

St Bernadette's submission noted that they do not support the proposed cycleway due to turning restrictions in and out of the school. It is noted that the proposed design of the cycleway does not restrict access in and out of the school.

A phone meeting was held with St Bernadette's School on 26 February 2019. The school supported the idea of the cycleway but had some concerns as follows:

- Loss of parking along Hei Hei Road
- Conflict of movements at drop-off and pick-up time with parents turning across the driveway.
- Access for pedestrians and cyclists across Hei Hei Road

The design team made amendments to the design of the cycleway adjacent to Hei Hei Road and provided these to the school via email. Changes included the creation of additional carparks along Hei Hei Road, and the addition of a Kea crossing directly outside the school. The school did not provide feedback on the proposed changes.

Amendments to the proposed design along Hei Hei Road are detailed below in Section 8.0.

Hornby Primary School

Hornby Primary School supports the proposed cycleway but have requested a P3 drop off/pick up zone to be installed on their Waterloo Road frontage to compensate for loss of parking. This request has been included in the design changes and is detailed in Section 8.0.

P3 parking has been added along Waterloo Road at the request of Hornby Primary and Hornby High School.

Middleton Grange School

The section of cycleway along Suva Street was consulted on as part of the Nor West Arc Cycleway.

4.4 Emergency Services

A meeting was held with a representative from Canterbury Police in October 2016. Discussions focused on high crime areas and the potential mitigations measures to increase safety along the proposed route. These include increased lighting, passive surveillance and vegetation maintenance. Feedback from NZ Police has been incorporated into the design of the South Express Cycleway and a Crime Prevention through Environmental Design (CPTED) assessment has been undertaken.

No submissions were received from the emergency service organisations.

4.5 Christchurch District Health Board

The CDHB provided a submission outlining the following key points:

The Canterbury District Health Board noted that transport and urban design have particular influences on the health and wellbeing of New Zealanders. One obvious health outcome is increased safety for all road and footpath users and reduced crash risk. However, the greatest

health impact is how the design of streetscapes can encourage or inhibit physical activity. Low physical activity is the 10th leading risk factor for death and disability in New Zealand and contributes to a number of preventable diseases which cause the most deaths per year in the developed world. Therefore the CDHB commends Christchurch City Council in their vision, as quality cycling infrastructure is a significant investment local government can make towards the health and wellbeing of our communities.

The CDHB supported many aspects of the South Express proposal but also made a number of suggestions, including:

- Clear and obvious signage is provided throughout.
- Adequate widths for shared paths.
- Adequate natural surveillance and lighting to maximise personal safety at all times of the day.
- When the two-way cycleway is indicated, that green surfacing treatment is applied to busy entrances/exits and warning signs for vehicles to prompt them to look both ways for cycles.
- On-street parking is not retained at any point immediately adjacent to separated cycleways and is instead provided on the opposite side of the road where possible.

The CDHB also made a number of site specific comments including:

- Supports the use of the pedestrian fence outside of the ABC Learning Centre, as without this measure, there is significant risk of children accidentally running in front of approaching cycles (which will be approaching from both directions).
- Transmission Corridor - Recommends that a non-slip treatment is applied to the wooden bridge proposed across the Paparua Stream to reduce the chance of crashes in wet and frosty conditions.
- Supports removal of all on-street parking to prioritise bus movements down the section of Main South Road.
- Supports the intent of what is trying to be achieved with restricting through traffic on Elizabeth Street via cul-de-sacs and street design changes. This is likely to create a quieter, safer and more walkable neighbourhood, which has many benefits. However the impact on residents on Elizabeth Street who may not be able to walk or cycle should be considered and their views sought on these changes. Alternatives to changing this road layout could be to instead lower the speed to 30km/h and create a shared zone with traffic calming and controlled crossings at Wainui, Division and Clarence streets.

4.6 Kiwi Rail

KiwiRail noted that they supported in principle the South Express cycleway and their submission is detailed below.

There are some key considerations for KiwiRail from a safety and operational perspective which are assessed during the application process for a proposed cycleway or shared path.

This is to ensure the cycleway design protects the safety of path users, our people and the travelling public and that it does not restrict our current or future rail business operations.

The current proposal for the South Express Major Cycle Route avoids the Main South Line (MSL) rail corridor east of Gilberthorpes Road (at about 20.5km MSL) and this is supported. Much of the land within the railway corridor is constrained through this leg, with many buildings along the KiwiRail boundary and busy linkages between industrial facilities and the rail line with driveways and rail sidings.

Middleton Yard is located between Matipo Street and Annex Road. It is one of KiwiRail's largest marshalling yards and is the major distribution hub for Christchurch. More than 7,000 trains arrive, depart or pass through it each year, plus many other shunting movements. The yard currently handles more than 180,000 train wagon loads.

In recent years, KiwiRail has installed new or improved sidings to connect to major customers in the Sockburn area. If a cycle route were planned to cross these sidings, a significant public safety issue would arise. KiwiRail expects that shunting train movements to and from these sidings will continue to increase as the domestic rail market between the North and South Islands grows. KiwiRail also needs to preserve the option of providing future connections to potential customers in the Hornby-Sockburn area.

We are in active discussions with you about the South Express Major Cycle Route being positioned along the edge of the Main South Line rail corridor in some locations between Globe Bay Drive/Jones Road (25km MSL) and Gilberthorpes Road (20.5km MSL). We expect the cycleway here to be feasible with some details about level crossing upgrades, separation from the tracks and protection of infrastructure still being worked through.

The project team will continue to engage with KiwiRail as the project progresses into detailed design and construction.

4.7 Local Authorities

Environment Canterbury (Public Transport Team)

Supports the proposal but outlined a number of concerns relating to bus stops and bus routes. In particular ECan noted:

- Re-positioning of the bus stop on Main South Road near Curletts Road. This will bring it very close to the Church Corner bus stop, decreasing the catchment potential and causing the bus to stop and start within a short distance.
- The location of bus stop on Hei Hei Road near Buchanans Road next to a shared path allows no separation between pedestrian, cycle and bus traffic. This in-lane bus stop has no standard MCR markings.
- Main South Road is used by the Yellow Line, 130 and 100 routes. The Yellow Line is a high frequency route operating every 10-15 minutes Monday to Saturday and 30 minutes on Sundays. The 130 and 100 routes run at 10-15-minute peak frequency, half-hourly frequency off-peak, and hourly frequency on Sundays. These services carry a range of passengers including peak commuter traffic and children to local schools.

- Use of Main South Road for a cycleway. Main South Road is a core public transport corridor. The use of the same roads for major bus routes and cycleways leads to compromises that means the needs of the users of both modes are compromised. We acknowledge that the road structure in this area means that there are few alternatives, but we implore the City Council to consider all alternative options to avoid this outcome if possible.

Design of all bus stops will be in accordance with CCC and ECan agreed guidelines for MCR's and the project team will continue to refine bus stop design during the detailed design process.

Selwyn District Council (SDC)

A meeting was held with the Asset Manager - Transportation from Selwyn District Council on 30 January 2019.

SDC supports the proposed cycleway and made the following recommendations:

- Coordinate the extension of the South Express Cycleway along Jones Rd to link to SDC's Rolleston cycleway as current plans show the South Express cycleway ending at Globe Bay Drive leaving a gap of approximately 700 metres. This suggestion was also recommended by 12 individual submissions.
- Include a pathway at the Kirk/Railway Terrace/Main South Road intersection to the Main South Road to line up with Trents Road.
- Provide a safe pedestrian/cycle crossing point over Main South Road to Trents Road from Kirk Road to link to the Selwyn section from Prebbleton. Safety improvements to Kirk Road intersection was also recommended by 19 submitters.

4.8 Blind Foundation

Supported the proposal but had some concerns regarding the technical aspects of the project such as shared path width, tactile ground surface indicators, crossing design and kerb height, use of bollards. These details will be confirmed during detailed design during which time a meeting will be held with the Blind Foundation to further understand their concerns and requirements.

4.9 Spoke

A meeting was held with Spokes on 19 March 2019 to discuss the route selection process, facility type selection and impacts. Spokes supported the proposed design but noted that they would like to see more opportunities to easily access or leave the cycleway so it's more efficient for experienced users.

Spokes made a submission in support of the cycleway and noted that the proposed route has the potential to be an enormous asset for those who live on or near it as well as cycling overall. Council is to be congratulated for giving people who live in Templeton and Rolleston and all those in between the option to cycle to Christchurch. Spokes also made a number site specific recommendations which have been taken into account in the final design.

4.10 Generation Zero

Generation Zero strongly supports the proposed South Express Cycleway and noted that while the proposed route will change the way that cars can drive and park in the area of the cycle path, they believe that a vibrant, liveable, carbon-neutral city relies on having accessible

and safe cycleways. The proposed changes will make the lives of existing cyclists easier and safer, and hopefully encourage others to bike more. Thus, the road changes are a necessary sacrifice in the bigger picture. Generation Zero made specific comments on the following topics:

- **Cul-de-sacs:** The formation of cul-de-sacs will change the routes typically driven by cars, and it is hoped that the positive effects for cyclists and pedestrians will outweigh those who drive personal vehicles. While some cars will have to find new routes, the types of traffic most affected will be through traffic and rat runners. Cyclists will be positively affected; it will make their trip safer, nicer and more efficient. Residents living there will also have much nicer amenity with less traffic, cleaner air, and safer streets.
- **Parking:** The removal of on-street parking for cars is necessary to build the South Express, and will help form a safer route for cyclists and pedestrians. The council has absolutely no obligation to provide on street parking, especially for residential properties.
- **Trees:** The removal of trees appears to be unavoidable in building the cycleways, but they should be replaced in better locations as soon as possible, as suggested in the proposal.
- **Safety and Schools:** The use of raised platforms and reduced speeds on shared roads help to make neighbourhoods quieter for those living there and safer for cyclists. The use of road markings to help drivers and cyclists know where to go is essential, especially while regular commuters get used to the changes.
- **Pedestrians:** The proposed plans make it easier for pedestrians to cross the intersections such as Clarence/Elizabeth Streets, by having dedicated traffic light crossings. This will make it safer for pedestrians.
- **Lime Scooters:** Lime scooters are becoming an important part of Christchurch's transport system and can be used on cycle paths that are separated from the road, such as much of the South Express. The proposed plans will therefore be appealing to Lime users who wish to safely, quickly, and efficiently get from A to B without driving a car.

4.11 Resident Associations

Submissions were received from Greater Hornby Residents Association, St Albans Residents Association and Templeton Residents Association. St Albans Residents Association supported the proposed cycleway while the remaining Associations supported with concerns.

- **Central Riccarton Residents Association** did not provide a written submission but a meeting was held with this association on 4 February 2019. There was a mix of reactions to the proposed cycleway with some members noting that they fully supported the cycleway and others noting that they did not support the design.
- **Greater Hornby Residents Association (GHRA)** noted their preference for the cycleway to go directly down the rail corridor. They also raised concerns associated with the proposed changes to the Parker Street / Waterloo Road / Gilberthorpes Road intersection. GHRA also suggested an alternative route utilising Carmen Road and noted that their concerns are for:
 - Residents - safe manoeuvring in and out of properties

- School children - safe access to education facilities on Hei Hei Road
 - 126 Hei Hei Road community facility - the ability to safely carry out their services
 - Heavy vehicle safety
 - Motorists - narrowing of roads
 - Cyclists safety
 - Rubbish collection changes
- **Templeton Residents Association** requested improvements to increase the safety of Kirk Road intersection, fencing along the rail corridor and the cycleway connect with the proposed Rolleston cycleway as at present, plans show a 700m gap.
 - **Deans Ave Precinct Society:** A meeting was held with Deans Ave Precinct Society in January 2019. The society had no concerns with the proposed South Express Cycleway.

4.12 Community Groups

- **Riccarton Community Church:** Riccarton Community Church does not support the project. The church is concerned about the loss of on-street parking and restricted access to Elizabeth Street as a result of changes proposed to the Elizabeth Street / Division Street intersection. The church suggested Peverel Street as an alternative route.

The following meetings have been held with Riccarton Community Church:

- **5 February 2019:** The church raised their concern that the Division Street diversion would sever access to the church from the surrounding area. They were also concerned about the impacts the parking removal will have on programmes and ongoing viability of the church.

Concerns about the impact on adjacent arterial streets as a result of the planned signals were also discussed. It was suggested that Peverel Street would be a better option as there are no businesses, churches or schools located on this street.
- **17 April 2019:** The project team presented the preferred alternative intersection layout (the intersection of Elizabeth Street with Division Street is reconfigured to maintain vehicle access along Elizabeth Street, and in both directions to and from the south side of Division Street) for the Elizabeth Street / Division Street intersection as well as multiple options that were considered during the planning stages. The pros and cons of the cycleway location on Elizabeth Street vs Peverel Street was also discussed.
- **14 May 2019:** The alternative Elizabeth Street option (access restrictions at the intersection of Division Street and Clarence Street) was presented to the church along with the revised Division Street and Clarence Street intersection layout. Proposed Riccarton P120 parking time restrictions to support concerns related to loss of parking and the remaining parking being parked out all day were discussed, and a new 40km/h school zone on Matipo Street for Wharenui School were tabled.

The church noted that Peverel Street is still their preferred option however, if the route remains on Elizabeth Street, the alternative layout is preferred by the

majority of the church. The church noted that the alternative scheme was preferred due to vehicle links between the church and Wharenui School and Wharenui Pool.

The church requested additional P120's on the north side of Elizabeth Street. The project team committed to reviewing the P120 parking however noted that resident parking demand still needs to be considered.

- **Oak Development Trust:** The Trust supports the City Council's desire to provide safer cycling facilities in Christchurch, and agrees that the proposed South Express cycleway will become a major part of the plan for the western side of the city. However, the Trust also considers that in the case of the Riccarton section of the cycleway, planned disturbances to the traffic flow, particularly along Elizabeth Street, will be a severe disruption to residents and businesses on the route.

The Trust also considered that the route deviations in Riccarton will discourage cyclists from using the cycleway, and they will seek alternate routes that will likely cause them to continue using dangerous roads.

- **Anglican Care Community Development - a division of Anglican Care, the social service arm of the Anglican Church in Canterbury-Westland:** Supports the project but had some concerns regarding loss of parking outside 126 Hei Hei Road. The relocation of bus stops on Hei Hei Road has allowed for seven additional parking spaces outside 126 Hei Hei Road. This is detailed further in Section 2.7 and 7.5.
- **Riccarton Community Development Network Trust:** Supports the project but has concerns with the Waterloo Road / Gilberthorpes Road intersection and the design of the cycleway along Elizabeth Street.
- **St Peters Church Upper Riccarton and St Luke's Yaldhurst:** Supports the proposed cycleway but have some concerns regard parking for the church especially at the time of a funeral or other major event. It was suggested that parking along Main South Road on the north side between Curletts and Riccarton Road be restricted to 120 mins between 9-5pm. This would enable major events and still provide residents with evening parking.
- **Hei Hei Broomfield Community Development Trust:** The Hei Hei Broomfield Community Development Trust do not support the proposed cycleway.

Concerns included loss of parking along Hei Hei Road and safety concerns for pedestrians, cars, trucks and buses as a result of the narrowing of Hei Hei Road. The trust also noted that that School drop offs / pick-ups for people using the two play centres, St Bernadette's Church and "126 on the corner" would all need to cross the road which will result in people becoming less safe

The trust also noted that there is a large number of elderly that either live in Hei Hei Rd or who come to one or more of the six organisations. Many of these have walking difficulties and use sticks, frames etc. This also includes those with disabilities and some arrive in wheelchair vans.

Following a presentation at a community lunch on Friday 22 February, a follow-up meeting was held with the Trust on 28 February 2019. At this meeting the Trust reiterated their concern with the loss of parking outside their facility at 126 Hei Hei Road. In response, the project team committed to exploring alternative designs which would retain parking.

A second meeting was held with the Trust in March 2019. During this meeting, the project team tabled sketches of an alternative layout for Hei Hei Road which involved the relocation of several bus stops to retain parking. The Trust agreed that the layout was an improvement and in general were happy with the alternative option.

Overall, the Trust noted they understood and generally agreed with the principle behind the cycleway, however were doubtful that Hei Hei Road is the right place for the facility. The Trust didn't believe there was significant demand for a cycleway and that the facility was unlikely to attract local cyclists. The Trust noted a preference for the cycleway to continue along Waterloo Road to Carmen Road.

- **St Bernadettes's Catholic Parish:** Support the project but noted their concern regarding the loss of parking.

The design team made amendments to the design of the cycleway adjacent to Hei Hei Road and provided these to the school via email. Changes included the retention of carparks along Hei Hei Road, and the addition of a Kea crossing directly outside the school to improve safety for the students of the school.

- **La Vida Trust, La Vida Youth Trust and Life Church:** Support the proposed cycleway but had concerns regarding the reduction of parking on both Ballantyne Avenue and Suva Street. A follow-up meeting was held with La Vida Trust on 10 May 2019 to present an alternative option for parking along Ballantyne Avenue. This included the removal of two raised platforms and the introduction of P120 parking along the east side of Ballantyne Avenue between 6pm – 8am, Monday - Friday. La Vida Trust indicated that they were in agreement with the proposed design changes.

4.13 Affected Businesses

- **Macpac (corner of Blenheim Road and Mandeville Street):** A meeting was held with the property owner of Macpac in February 2019. A small section of this property will need to be purchased for path widening if the cycleway project proceeds. Property owners did not have any concerns with the proposal subject to going through an evaluation process. The property owners advised that there were significant underground services under the property lot.
- **Hamilton Motors and Matipo Street Food Market:** Supported the cycleway but had concerns with the removal of parking spaces outside these businesses.

An initial meeting to better understand their concerns was held in February 2019. A follow-up meeting was held in May 2019 to present proposed design changes which included the retention of four on-street parking spaces near Hamilton Motors (two on south side of Elizabeth Street and two on the north side).

- **Wharenui Swim Club:** Does not support the proposed cycleway due to concerns about the impact of the loss of parking on Elizabeth Street.

An initial meeting to better understand the clubs concerns was held in February 2019. A follow-up meeting was held in May 2019 to present the alternative Elizabeth Street design and to confirm that no parking / access changes within the pool grounds are proposed.

- **Islington Fish and Chip shop (Waterloo Road):** Does not support the proposed cycleway due to the impact of the loss of car parking along Waterloo Road.
- **LX Joinery (39 Buchanans Road)** Supports the cycleway but is concerned about the addition of another set of lights for a cycle way crossing over Carmen Road close to the existing lights at Buchanan's Road.

The submitter also disagreed with the cycleway going down the city side of Hei Hei Road and noted that there are four roads that the cycle lane would have to cross plus various private lanes a pre-school and two schools. It was noted that If the cycle lane was to be moved to the west side of Hei Hei Rd, It would allow for a drop off zone on the correct side of the road, and as both Schools on Hei Hei Road have patrolled crossings, this would be where cycles can cross safely.

- **Canterbury Jockey Club (Riccarton Racecourse):** Support the proposed cycleway but had concerns regarding safety and security to their premises along the transmission line. The club requested a fence be erected on the boundary between the Racecourse and the cycleway.
- **Auto Pro (Waterloo Road):** Support the proposal but had concerns with closing Moffett Street at Gilberthorpes Road as this accessway is a "safety valve" for built up traffic on Waterloo Road. They also noted concern for increased traffic short cutting across the business forecourt and the danger of getting bowled over by a vehicle.

5.0 RESPONSES TO COMMON CONCERNS

Responses to common concerns raised through the public consultation process are as follows:

5.1 Loss of Residential Parking

The project team developed a scheme for consultation that maximised the amount of on-street parking and is, as much as possible, sympathetic to residential and business owner needs. Without land purchase, the existing road width and traffic lane configuration limits available space and unfortunately the retention of all existing on-street parking cannot be accommodated along the entire length of the proposed cycleway.

We received seven submissions that noted that parking removal was essential to achieve a safe and user-friendly cycleway. These submitters said that the design of the cycleway should not be compromised due to the desire to retain residential parking.

Further review of the scheme by the project team has added additional parking spaces as follows:

Sheet Number	Parks added	Parks Removed	Description of Changes
3	8		Keeping the shared path on the southern side of Waterloo Road means that the crossing over Waterloo Road and the shared path on the northern side are removed. This change results in two parking spaces on the eastern side of Waterloo Road and six parking spaces on the northern side of Waterloo Road being retained
18	3		The proposed refuge island outside the access to Kyle Park has been removed and the existing refuge island to the west of Taurima Street will remain. This creates easier vehicle access into Kyle Park, and retains two additional parking spaces on the northern side and one on the southern side of Waterloo Road.
20	13		The refuge island outside St Bernadette's School has been removed and replaced with kerb buildouts and a "kea" school crossing. This adds six parking spaces on the western side of Hei Hei Road. Seven parking spaces are added on the eastern side of Hei Hei Road adjacent to the St Bernadette's School playing field.
21		1	The extent of no stopping on the southern side of Aurora Street has been extended to the driveway of No. 1 Aurora Street to improve the intersection for buses and other large vehicles.
22	7	5	The bus stops on Hei Hei have been shifted onto Buchanans Road. This creates two parking spaces on the western side of Hei Hei Road and three on the eastern side adjacent to No. 126. The kerb buildout on Buchanans Road has been modified to create two parking spaces outside No. 171 Buchanans Road. This does result in the loss of five parking spaces further down Buchanans Road.
23	3		The bus stops adjacent to and opposite Vanguard Drive have been removed following the relocation of the Hei Hei Road bus stops to Buchanans Road, approximately 120 metres away.

Sheet Number	Parks added	Parks Removed	Description of Changes
34			The amount of on-street parking on the eastern side of Craven Street has been reduced to ensure good visibility at driveways with the cycleway being on that side of the road, however the amount of parking on the western side is increased. This effectively makes this alternative design neutral for parking along the street.
35	1		The kerb buildouts around Colman Avenue have been extended. This allows an additional parking space to be provided outside No. 82 Main South Road.
39-40	14		<p>Parking is now permitted on most of the eastern side of Ballantyne Avenue south of Haynes Avenue overnight (6pm-8am) and on weekends, retaining 14 parking spaces during these times.</p> <p>The raised platform north of Haynes Avenue has been removed. This creates two additional parking spaces.</p> <p>The raised platform south of Owens Terrace has been removed. This creates two additional parking spaces.</p>
45		9	The original design resulted in the loss of approximately 12 of the 37 existing on-street parking spaces on Lochee Road, between Golden Elm Lane and Wharenui Road. To avoid removing any trees along Lochee Road, the revised design results in the removal of 21 of the 37 existing on-street parking spaces.
46	2		The no stopping lines outside 58 Wharenui Road are removed, creating two parking spaces.
47	1		One additional parking space has been added on Peverel Street to the east of Tika Street.
49	1		A parking space has been created outside No. 110 Elizabeth Street.
50	4		<p>The traffic lanes on Elizabeth Street have been altered to allow additional parking to be provided on both sides of Elizabeth Street.</p> <p>Two parking spaces created on the northern side, outside the Matipo Street Food Market and Hamilton Motors, are P10 spaces; designated for 10-minute parking.</p>

Sheet Number	Parks added	Parks Removed	Description of Changes
50 <i>contd</i>			Two parking spaces have been created on the southern side of Elizabeth Street, next to Wharenui Pool.
51	1		An additional parking space has been created on the southern side of Elizabeth Street, opposite the Division Street Dairy. This is designated as a P10 space.
Total	58	15	

Figure 15: Post consultation parking changes

5.2 Lighting

Lighting was raised as a general concern in the reserves and the alleyway between Main South Road and Ballantyne Ave. All lighting along the route (including street lighting) will be upgraded and light spill onto neighbouring properties will comply with the District Plan.

5.3 Not value for money/higher priorities

Some submitters were concerned money was not being prioritised to the eastern suburbs for repairs of post-quake damage. The submitters were seeking repairs to potholed roads, damaged footpaths and stormwater drainage. Funding for the South Express MCR has been confirmed through Council's Long-Term Plan funding process, which included public consultation in 2018.

5.4 Suggesting other routes

At the public drop-in sessions, Council encouraged submitters to provide details of what they like and do not like to about the schemes to assist Council analysis of their feedback. An outcome of this was suggestions of other routes for various reasons including more direct for riders, potentially lower construction cost, less on-street parking impacts and making use of existing facilities. Selection of the consulted route was identified through the Council approved Multi Criteria Analysis (MCA) process as part of the South Express Route Selection. Based on the public submissions, the route assessment was reviewed for targeted areas and resulted in one viable alternative along Taggart Place. The key alternative routes are presented below.

Carmen Road

An alternative route to Hei Hei Road was suggested that utilised Waterloo Road and the existing off-road shared path along Carmen Road. Carmen Road is not feasible without land acquisition from multiple residential properties to provide a safe facility and approval from NZTA, who have indicated they don't support this route due to the impacts on the Buchanans Road intersection. A review confirmed Hei Hei Road as the preferred route.

Lochee Road

The alternative route continues the shared path through Middleton Park, around the playing fields, and over private property near the New Zealand Institute of Sport (to be acquired or leased) linking onto Wharenui Road. This route has social safety concerns through the extended length within Middleton Park, is less direct, and has land acquisition / leasing complications. A review confirmed Lochee Road as the preferred route.

Taggart Place

Taggart Place and an adjacent reserve was suggested as an alternative to part of Epsom Road and Middlepark Road. The alternative route retains additional on-street parking and utilises a park area, however is less coherent for riders, has minor social safety concerns in the park and requires consenting. Whilst the Taggart Place route would be a viable option, it still has impacts on the residents of the route. Design changes that address some of the key concerns of the original route have been made.

A route that by-passes Epsom Road and Taggart Place by utilising the waterway corridor and the reserve at the end of Taggart Place was also suggested by some residents of Epsom Road and Taggart Place. This route was reviewed, however it is not considered a viable option as acquisition of private property would be required in order to make space to construct a path.

Waterloo Road

Waterloo Road, from Carmen Road to Racecourse, was suggested as a more direct route than the 'dog leg' power transmission corridor. This is correct, however safety concerns related to the industrial activity with a high volume of truck movements (such as at Firth Concrete) cannot be satisfactorily mitigated for the target user group. The power transmission corridor, while longer, caters for a greater residential area and is safer.

Railway Corridor

Utilisation of the railway corridor was suggested as an alternative to use of road and park areas. The corridors were evaluated during the route selection stage and identified as not feasible due to a combination of railway sidings, limited corridor width resulting with insufficient clearance to railway tracks, and the protracted consultation and agreements required. KiwiRail have confirmed they do not support paths parallel to the railway in this location.

Peverel Street

A route along Peverel Street was suggested as an alternative to Elizabeth Street as it passes fewer businesses and community organisations such as the church, school and swimming pool. Whilst a route along Peverel Street would avoid these premises, a part of the goal of the MCR is to connect community facilities such as these. A route along Peverel Street would be longer (less direct) and less safe for cycling due to higher future traffic volumes and more intersections. Design changes have been made along Elizabeth Street, adding in five parking spaces in key locations.

5.5 Road access impacts/Network capacity

Introduction of new traffic signal-controlled intersections and mid-block crossings will require traffic to stop more frequently. This perceived reduction in capacity concerned some submitters. The required intersection and mid-block crossing control type is guided by the Council MCR design guides, which correctly considers traffic volumes. The MCR crosses a number of high-volume north-south roads, where traffic signals are the only viable option to cater for the current and projected future pedestrians and cyclists. All signalised intersections will be monitored via the Christchurch Transport Operations Centre and coordinated with adjacent signals as appropriate. At a network level, there is sufficient capacity to cater for the new and upgraded intersections and vehicle traffic rerouting associated with turn restrictions or cul-de-sac implementation.

5.6 Neighbourhood greenways

Some submitters suggested the use of neighbourhood greenways along parts of the route, including Lochee Road and Elizabeth Street, usually in order to reduce the impact to on-street parking and vegetation. A neighbourhood greenway is a road with low vehicle speeds and volumes, where people cycling share the roadway with motor traffic. These were considered, however in both cases traffic volumes (current and expected in the future) are considered too high on both of these streets for non-confident cyclists, especially when considering the peaks associated with schools and sporting facilities. To reduce traffic volumes to levels suitable for neighbourhood greenway treatments would require heavier turning restrictions and road closures than those already proposed on this project, and would still result in the removal of some on-street parking to fit traffic-calming features.

5.7 Crossing locations

Some submitters raised concerns around the location of the cycleway crossing points at certain locations. The crossings over Kirk Road and Lochee Road have been amended.

Two other crossings that were commented on by several submitters included:

Waterloo Road, near the roundabout

Shifting the crossing further west was investigated, however to shift the crossing to a point where a refuge island could be provided would require private property to be purchased to make a connection to the crossing point.

Epsom Road

Concerns around the location of the crossing near Ashtead Lane were raised by some submitters, with suggestions given of locating the crossing closer to the corner where the path emerges from the Paparua Stream Reserve, or at Middlepark Road. These locations were reinvestigated following consultation, however neither were found to be viable options. A crossing near the corner wouldn't achieve good visibility for drivers approaching the traffic signals, and the location of driveways doesn't leave adequate space to fit the crossing and associated traffic signal poles. A crossing closer to Middlepark Road would be less safe for people cycling as the cycleway would cross the busy entrance to the business park. Changes made to the design along Epsom Road will make it easier for people living in Ashtead Lane to get in and out of their access.

5.8 Safety

Safety, and the perception of safety, is paramount to the successful implementation, new rider uptake and operation of MCRs. Safety of all users is evaluated during route selection, option development and all stages of design through to the ongoing maintenance and operation. Key themes of safety concern are presented below:

Pedestrians, mobility impaired, elderly, young

Some locations require the use of shared paths due to limited space within the road reserve. This usually occurs at intersections where the provision of additional vehicle turning lanes is required. The use of these paths has been minimised within road corridors. The provision for mobility and visually impaired will be in accordance with NZ and Council standards.

Access

Vehicle access points across the MCR are a key point of conflict within an urban environment. All accessways will be marked in accordance with Council guidelines to raise awareness of both path users and drivers to each other.

Heavy commercial vehicles (trucks, buses, rubbish collection etc)

Interaction between riders and HCVs was raised as a concern, as well as movement of HCVs along narrower roads. Interaction between users has been minimised as far as practicable via separated facilities and clear priorities at intersections. The proposed road widths cater for the expected volume of HCV on various roads with intersections designed depending on the roads hierarchy and in accordance with Council guidelines. The conflict at accessways is managed via markings and signage.

Intersections

The design of intersection is in accordance with the Council MCR design guide and best practice. This provides guidance on the intersection form, be it priority control, roundabout or signals based on traffic volumes and safety. Vehicle tracking movements are reviewed, and non-motorised users catered for.

5.9 School Impacts

Submissions were received concerned with the current high level of student and vehicle activity outside schools during drop-off and pick-up times. Concerns were raised with loss of on-street parking for 'kiss and drop' and interaction between people riding and pedestrians, scooter users. Parking provisions have been discussed with the affected schools and time restricted parking provided to enable 'kiss and drop'. The level of interaction with riders is higher at peak times, however is likely to include a number of school students riding and does not coincide with the evening peak commuter volumes.

6.0 DESIGN CHANGES

As a result of community feedback and further technical advice, the project team has reviewed the scheme and has recommended 75 design changes.

These changes are described in Appendix C and shown on updated plans in Appendix A.

7.0 INFORMATION FOR SUBMITTERS

Prior to the Infrastructure, Transport and Environment Committee meeting, all submitters will be sent a letter with details of the meeting. The letter also includes a link to meeting agenda, submissions, consultation report and the proposed plans for approval.

Elizabeth / Clarence Intersection

Peloton, O Brown, March 2019

This note identifies traffic signal options to cross Clarence St from Elizabeth St.

Option 1 – midblock signals Clarence St southern approach

- Full vehicle movements permitted.
- Likely to meet CTOC requirements, good offset to Elizabeth St (10m).
- Could be sight distance restriction for MCR users on corners if high fences were erected (currently no fence on either corner).
- Remove and seal low level planting on both corners.
- Narrow 3m shared path either side of Clarence, leading to 2m between fence and signal pole below MCR width requirements and results in safety and operational impacts. This is narrower than the Papanui Parallel MCR at Colombo / Edgware on the north side, which is 4m wide and unpleasant to ride. This has resulted in cyclists crossing outside the crosswalk lines and using nearby cutdowns.
- No improvement to vehicle right turn out movement, may lead to illegal turn on red.
- Sidra modelling indicates delays and queue lengths on Clarence St are comparable to full signalisation.

Option 1a – same as Option 1 with turn restrictions

- This is Option 1 located approximately 10m further north with access to Elizabeth Street restricted to left turn out only (i.e. no entry, no right out).
- Will require raised median on Clarence St to prevent right turn out of Elizabeth, otherwise fully reliant on traffic signs. Raised median unlikely to be compatible with CCC Clarence St corridor capacity improvements.
- With the proposed division street diversion, Elizabeth and Division St vehicles that want to turn right onto Clarence St or enter Elizabeth Street are required to re-route onto Peverel Street, a 700m detour. The detour length is similar without the diversion.
- MCR alignment is improved and addresses the MCR width issues with Option 1. Improves compliance with CTOC off-sets.



Option 2 – midblock signals Clarence St northern approach

- Two-way path required on north side of Elizabeth St
- May meet CTOC requirements, driveway within limit line/crossing zone and limited offset to Elizabeth St (6m). Layout considered less safe than Option 1.
- Sight distance restriction for MCR users on corners with high fences / vegetation.
- Narrow 3m shared path either side of Clarence, leading to 2m between fence and signal pole below MCR width requirements and results in safety and operational impacts. This is narrower than the Papanui Parallel MCR at Colombo / Edgware on the north side, which is 4m wide and unpleasant to ride. This has resulted in cyclists crossing outside the crosswalk lines and using nearby cutdowns.
- No improvement to vehicle right turn out movement.
- Could result in right turn in movement conflict with Clarence St through cyclists when vehicles stopped at red light.
- May attract right turn out traffic with gap provided via signal phasing.
- Sidra modelling indicates delays and queue lengths on Clarence St are comparable to full signalisation.

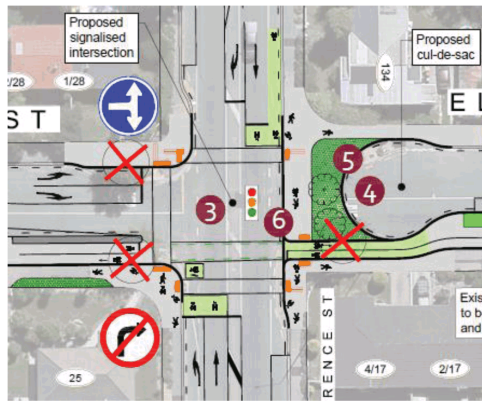
Option 2b - same as Option 2 with turn restrictions

- This is Option 2 located approximately 12m further south with access to Elizabeth Street restricted to left turn in only (i.e. no exit, no right turn in).
- Will require raised median on Clarence St to prevent right turn into Elizabeth, otherwise fully reliant on traffic signs. Raised median unlikely to be compatible with CCC Clarence St corridor capacity improvements.
- With the proposed diversion street diversion, Elizabeth and Division St vehicles that want to exit onto Clarence St or right turn into Elizabeth Street are required to re-route onto Peverel Street, a 700m detour. The detour length is similar without the diversion.
- MCR alignment is improved and addresses the MCR width issues with Option 2. Improves compliance with CTOC intersection off-sets.



Option 3 – Clarence St full signals

- Meets CTOC requirements
- Meets MCR width requirements with good approach to signals
- Improves right turn out movement
- Sidra modelling indicates delays and queue lengths on Clarence St are comparable to midblock signals, especially on south approach.
- Phasing could be changed to Colombo / Edgeware layout that combines cycle/pedestrian movement and Elizabeth St phase with optional fully protected phase.
- Supports the Division St diversion.



Modelling Summary

Option 1 and 2 – Mid-block signals

MOVEMENT SUMMARY

Site: 1 [Clarence Midblock AM]

New Site
Pedestrian Crossing (Signals) - Fixed Time Isolated Cycle Time = 100 seconds (User-Given Cycle Time)

Mov ID	CD Mov	Total veh/h	Demand Flows HV/ %	Dep. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: RoadName											
2	T1	801	4.3	0.522	4.3	LOS A	14.2	103.4	0.40	0.37	32.9
Approach											
		801	4.3	0.522	4.3	LOS A	14.2	103.4	0.40	0.37	32.9
North: RoadName											
8	T1	866	3.2	0.561	4.5	LOS A	16.2	116.6	0.42	0.39	32.3
Approach											
		866	3.2	0.561	4.5	LOS A	16.2	116.6	0.42	0.39	32.3
All Vehicles											
		1667	3.7	0.561	4.4	LOS A	16.2	116.6	0.41	0.38	32.6

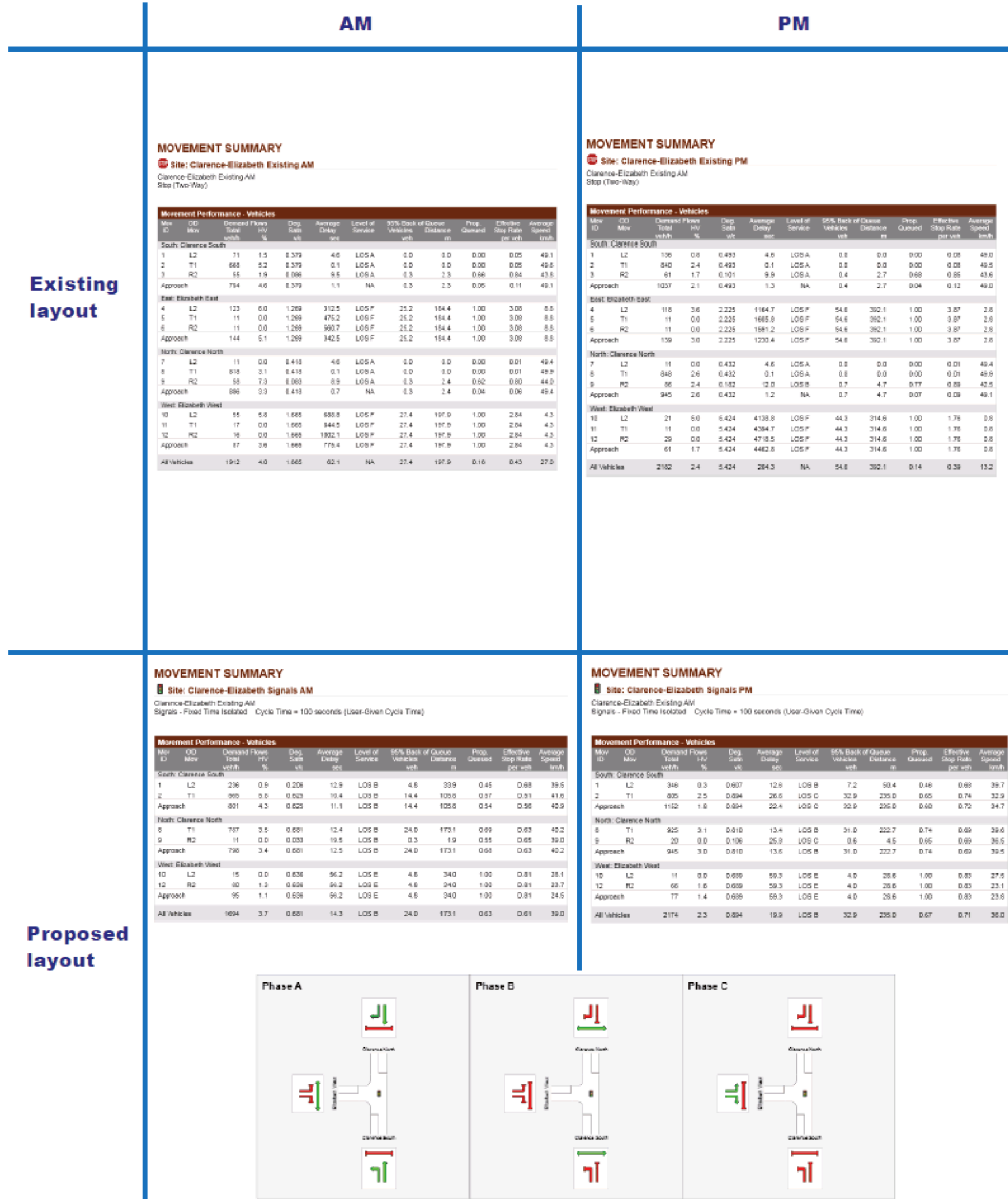
MOVEMENT SUMMARY

Site: 1 [Clarence Midblock PM]

New Site
Pedestrian Crossing (Signals) - Fixed Time Isolated Cycle Time = 100 seconds (User-Given Cycle Time)

Mov ID	CD Mov	Total veh/h	Demand Flows HV/ %	Dep. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: RoadName											
2	T1	1151	1.7	0.738	6.0	LOS A	28.6	203.2	0.57	0.53	28.9
Approach											
		1151	1.7	0.738	6.0	LOS A	28.6	203.2	0.57	0.53	28.9
North: RoadName											
8	T1	992	3.0	0.641	5.1	LOS A	20.9	150.1	0.48	0.45	30.9
Approach											
		992	3.0	0.641	5.1	LOS A	20.9	150.1	0.48	0.45	30.9
All Vehicles											
		2142	2.3	0.738	5.6	LOS A	28.6	203.2	0.53	0.49	29.8

Option 3 – Intersection Signals



Key modelling notes:

1. Existing intersection has LOS A on Clarence St and LOS F on Elizabeth St (based on main movements)
2. Mid-block signals provide LOS A on Clarence St, Elizabeth St existing LOS F likely to be retained albeit marginally better with opportunities to exit created via stopped traffic at signals.
3. Mid-block sub-options evaluated address the MCR non-compliant areas. However, require restriction of vehicle movements to left turn exit or left turn entry only. This has re-routing disbenefits with and without the Division St diversion.
4. Full signals provide LOS B/C on Clarence St and LOS E on Elizabeth St (based on main movements). The LOS E is a significant improvement over LOS F, with a reduction in delay from well over 2 minutes to around 1 minute. While this is not an objective of the layout, it does have operational and safety benefits for the community.
5. Full signalisation is less efficient than mid-block signals for the Clarence Street through traffic, however the signal operation will be linked to Blenheim / Clarence to maximise coordination along Clarence Street.
6. The following tables present sidra modelling outputs for the morning and evening peak periods comparing full signals and mid-block signals. It is notable that the queue lengths between options are comparable for the southern approach. The largest fluctuation is on the northern approach.
7. To the south, queues extend to Lyndon Street in the morning and Blenheim Road in evening.
8. To the north, queues extend from Burdale Street to midway to Peverel Street in the morning to midway to Peverel Street to Peverel Street in the evening.

Morning Peak

	Delay (sec)	LOS	95% queue vehicles	95% queue (m)
Full Signals				
Clarence south	12.9	B	14.4	106
Clarence north	12.4	B	24	173
Mid-block Signals				
Clarence south	4.3	A	14.2	103
Clarence north	4.5	A	16.2	117

Evening Peak

	Delay (sec)	LOS	95% queue vehicles	95% queue (m)
Full Signals				
Clarence south	26.6	C	32.9	235
Clarence north	13.4	B	31	223
Mid-block Signals				
Clarence south	6	A	26.6	203
Clarence north	5.1	A	20.9	150

Conclusion

1. Traffic signals are required for pedestrians and cyclists to cross Clarence Street. Full signals reduce the vehicle delays from Elizabeth St and improve safety.
2. Full signals are compliant with CTOC and MCR guidelines.
3. Mid-block signals have CTOC and MCR compromises to efficiency and safety. These can be mitigated via banning entry / exit movements at Elizabeth / Clarence and requiring local traffic to re-route approximately 700m.
4. Mid-block signals with turn restrictions is not consistent with the Division St diversion, and therefore would require removal of the diversion to permit Elizabeth St residents between Division and Clarence St to access Blenheim Road. Removal of the diversion creates significant MCR cycle / vehicle safety conflicts that cannot be resolved without further movement restrictions, such as cul-de-sac Division St north.
5. Full signals are compatible with, and required to support, the Division St diversion.
6. Clarence Street vehicle delays and queues are longer with full signals, although they are comparable on the south approach. The worst LOS is C, which is still very good on a congested corridor.
7. The full signals operation can be modified in peak periods to minimise delays to Clarence Street traffic.
8. Provision of full traffic signals provides the best balance of MCR user / pedestrian provisions and minimising vehicle access impacts on the local residents. The Division / Elizabeth St diversion is required irrespective of the Clarence St intersection type due to MCR / vehicle conflicts. Full signals can be operated in peak hours to minimise capacity impacts on Clarence St. It is recommended that full traffic signals are adopted for detailed design and construction.

Elizabeth Street – facility type summary

Peloton, Oliver Brown – 20 March 2019

This note summarises analysis of the facility types considered along Elizabeth St. The recommended facility type for public consultation is a 3m wide two-way separated path from Picton Avenue to Wainui Road, and a greenway from Wainui Road to Centennial Avenue. The facility type evaluation is detailed in Section 6.4.1 (page 75) of the South Express Scheme Assessment Report dated 22 January 2019 for consultation and assessed a greenway and two-way separated path.

Key facts evaluated, resulting in recommendation of a two-way facility, include:

- Elizabeth Street AADT modelled at 1,900 vpd in 2031. The current estimated volume (by CCC) is 2,000 - 3,000 vpd.
- Based on the Best Practice Design Guide (BPDG), Table 9-2, the desirable traffic volume for a greenway is less than 1,000vpd, with a maximum volume of 1,500vpd. Elizabeth Street volumes are therefore higher than the guide and at the upper limit for a greenway. This indicates that a greenway is not appropriate for Elizabeth Street, based solely on traffic volumes. This effects the safety, comfort and attractiveness criteria.
- Provision of a greenway will require reduction in traffic volume along Elizabeth Street, which could be partially achieved with a cul-de-sac at the Elizabeth / Clarence intersection. This results in resident re-routing onto Peverel St.
- It is imperative to highlight that the most important factor in the MCA (Multi Criteria Analysis) process is a cycleway should be safe and perceived to be safe (BPDG Section 9-3).
- On-street parking demand is high, except for the Wainui Road to Centennial Avenue block where demand is low. The high demand is a consequence of the medium density housing zone, location to Riccarton Mall, location to businesses on the south side of Blenheim Road, and local attractors such as Wharenui School, Wharenui pool, Division Dairy and Riccarton Community Church. High parking demand is not consistent with provision of a greenway and can result in fear by new cyclists that car doors will open in front of them then a cyclist is unlikely to feel as comfortable and effects perceived safety (BPDG Table 9-2). This effects the safety, comfort and attractiveness criteria.
- The BPDG (Table 9-2) recommends as a maximum, no more than 50% of the length of the street is used for parking. The desirable is no more than 40%.
- Incorporation of a greenway at signalised intersections is less coherent than a two-way, and results in cyclist / vehicle interactions with all turning movements permitted. This would be comparable to the Worchester / Stanmore intersection where cyclists share a single approach lane with vehicles. This feels unpleasant compared to a two-way, where users have physical and temporal separation. This effects the safety, coherence, comfort and attractiveness criteria.
- Greenway is less suitable in areas with higher vehicle movements, i.e. around the school, pool and potentially the church, and adjacent higher volume driveways, e.g. multiple units on one driveway. This effects the safety, comfort and attractiveness criteria.

The above highlights multiple departures from the BPDG if a greenway were implemented, with the outcome being new cyclists perceiving the route to be unsafe.

Elizabeth versus Peverel Street Routes

Peloton, O Brown, March 2019

This note compares Elizabeth and Peverel Street, from an MCR perspective, from the Peverel / Centennial Intersection to the Elizabeth / Picton Intersection as presented in Figure 1.

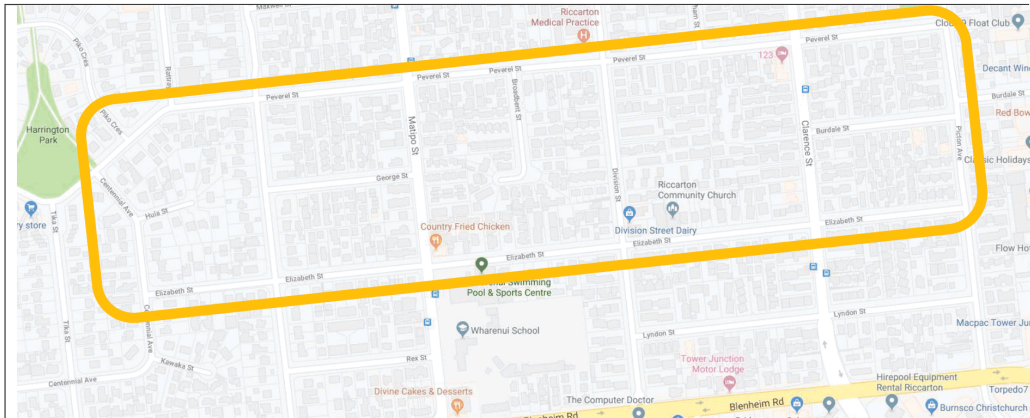


Figure 1: Study area

Key Statistics and Inputs:

These are presented in the South Express Route Selection report dated 18 August 2017.

- The projected traffic volume on Peverel is higher than Elizabeth Street, thereby increasing risk of an incident. The existing volumes are comparable to each other. Peverel Street AADT modelled at 4,000 - 6,650 in 2031. The current estimated volume (by CCC) is 2,560 vpd. A 12hour survey in 2018 recorded 1,086 vpd, which is in the order of 1,800vpd. Elizabeth Street AADT modelled at 1,900 – 3,300 vpd in 2031. The current estimated volume (by CCC) is 2,000 - 3,000 vpd. A 12hour survey in 2018 recorded 1,208 vpd, which is in the order of 2,000vpd.
- Peverel Street is a CCC known vehicle 'rat-run'. It connects to the Rattray Street 'rat-run' that heads north towards the university via Puirī Street. Drivers using a 'rat-run' generally drive more quickly and take less time to observe other users at intersections. This is a consequence of drivers attempting to find a quicker route and avoid congestion, and can lead to incidents.
- Parking demand on Peverel Street is higher, in general, than Elizabeth Street. This is related to Riccarton Mall Activity, with Peverel Street having P120 restrictions, which extend down Division Street, to mitigate the demand.
- Parking demand on Elizabeth Street is high at Wharenui Pool and the Community Church areas.
- Both roads are identified as local roads in the District Plan.
- Road reserves are 20m wide, except the Elizabeth Street block at Centennial that is 15m wide.
- Road widths (kerb to kerb) are typically 14m wide, except the Elizabeth Street block at Centennial that is 8.5m wide and Peverel Street block at Picton that is 9m wide.
- There are bus routes along Matipo and Clarence Street and no routes along Peverel or Elizabeth Street.

Land Use and access:

These are presented in the South Express Route Selection report dated 18 August 2017, in summary:

- The residential area is zoned medium density
- On Elizabeth Street there is Wharenui School, Pool (Special Purpose Zone), Food Market, Hamilton Motors, Division Dairy, Community Church.
- On Peverel Street there is the Baptist Church, Riccarton Medical Practice, 123 Motel.

Crash History – Cyclists and Pedestrians:

The ten year pedestrian and cyclist crash history (2008-19) has been extracted from CAS for both Peverel and Elizabeth Street. Figure 2 presents the crash diagram for Elizabeth Street and Figure 3 for Peverel Street. The five year vehicle crash history (2013-19) has been extracted from CAS for both Peverel and Elizabeth Street. Figure 4 presents the crash diagram for Elizabeth Street and Figure 5 for Peverel Street.

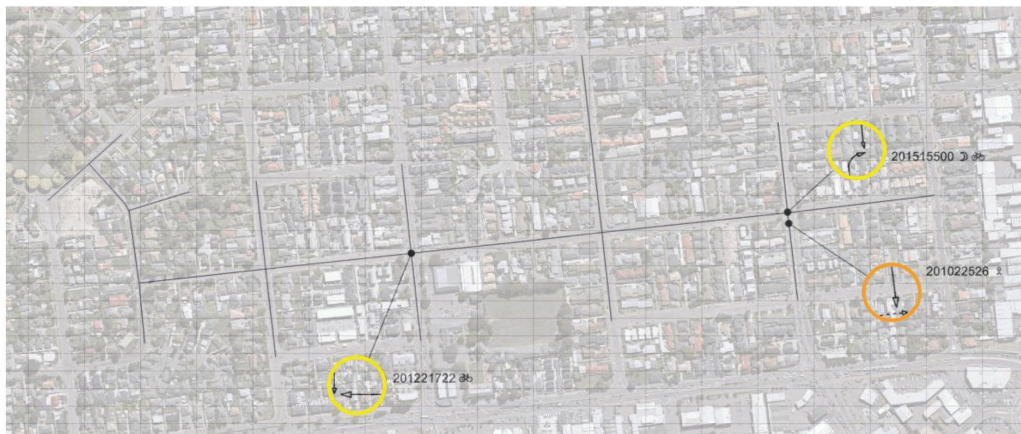


Figure 2: Elizabeth Street CAS reported pedestrian and cyclist crashes (2008-2019)



Figure 3: Peverel Street CAS reported pedestrian and cyclist crashes (2008-2019)

Elizabeth Street

There have been three reported crashes; one pedestrian (serious injury) and two cycle (2 minor injury). Key crash notes are:

- Two intersection crashes
- Two crashes were during daylight hours, one twilight. All crashes during fine weather
- Pedestrian crash was on Clarence Street, 15m south of Elizabeth Street, where pedestrian crossed heedless of traffic
- Cycle crash at Clarence / Elizabeth at twilight, where van turned in front of cyclist
- Cycle crash at Matipo / Elizabeth where the cyclist failed to give way

Within the last five years there have been 18 reported vehicle crashes, 15 at intersections. Key points are:

- 6 crashes at Matipo / Elizabeth
- 3 crashes at Wainui / Elizabeth
- 3 crashes at Clarence / Elizabeth
- 1 crash at Centennial / Elizabeth; Division / Elizabeth; Centennial / Peverel;
- 2 crashes on Elizabeth St 70-100m east of Division St; 1 eastbound approaching Matipo St

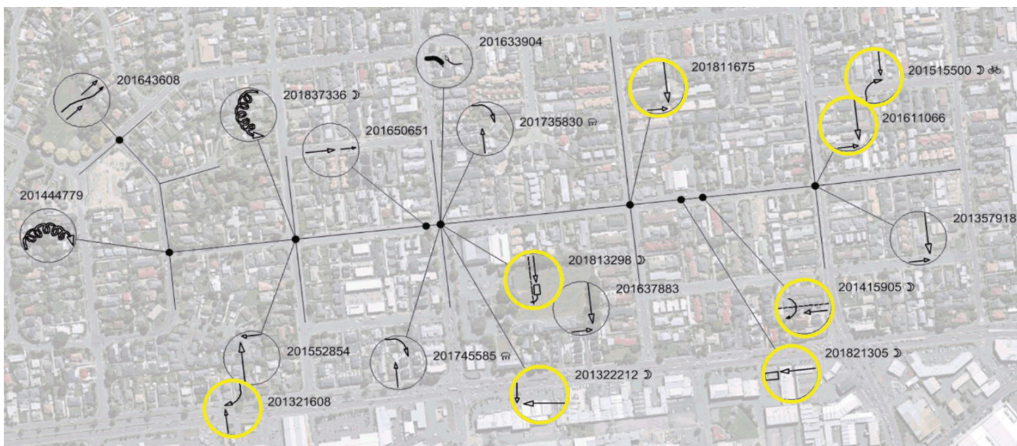


Figure 4: Elizabeth Street CAS reported vehicle crashes (2013-2019)

Peverel Street

There have been eight reported crashes; two pedestrian (1 minor, 1 non-injury) and six cycle (1 serious, 4 minor, 1 non-injury). Key crash notes are:

- All crashes were during daylight hours
- All in fine dry weather
- All at an intersection or driveway (except 1 cycle in mid-block). Both pedestrian crashes at driveways.
- Four cycle crashes involved driver failing to give way, one failed to notice another party and one car to far left.

Within the last five years there have been 22 reported vehicle crashes, all at intersections. Key points are:

- 6 crashes at Wainui / Peverel

- 8 crashes at Matipo / Peverel
- 1 crash at Clarence / Peverel
- 1 crash at Division / Peverel; Centennial / Peverel; Picton / Peverel; Wainui / Peverel; Piko / Peverel; Picton / Burdale

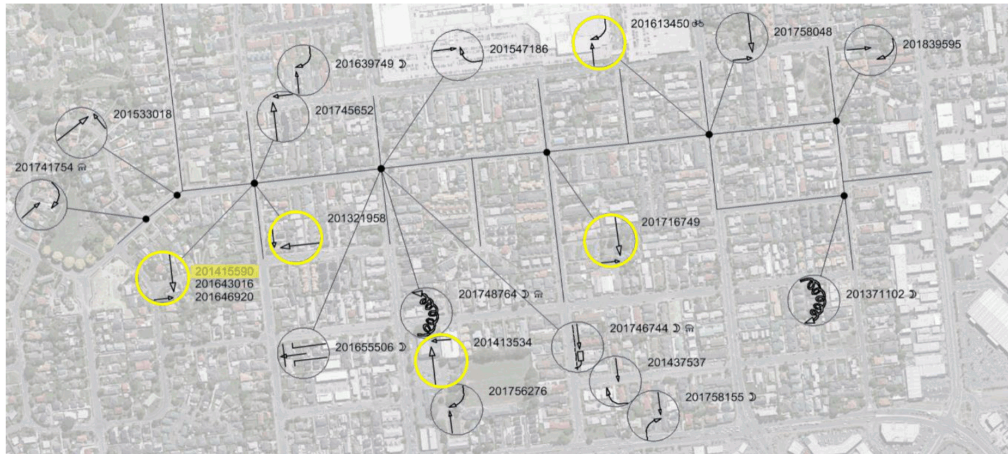


Figure 5: Peverel Street CAS reported vehicle crashes (2013-2019)

MCA Considerations:

This compares Peverel to Elizabeth Street, the preferred route.

- **Safety.** Peverel Street has higher traffic volumes due to ‘rat-running’ traffic, and passes through the Rattray Street intersection that caters for north-south ‘rat-running’ traffic. Peverel crosses additional residential driveways that cater for multiple units (due to longer route), however Elizabeth crosses Wharenui Pool access, therefore overall driveway incident risk comparable. Both routes pass through the higher volume (5,400vpd in 2031) Division Street intersection. Higher crash potential on Peverel due to higher traffic volumes. **Peverel Street lower score** due to more intersections and higher traffic volumes.
- **Directness.** Peverel Street 140m longer (11%), which is at the upper end of the cyclist rerouting distance. **Peverel lower score.**
- **Coherence.** Elizabeth has a higher number of turns (3 vs 1); Both have two facility types; Elizabeth better connectivity to Wharenui School, Pool, Peverel better connectivity to Mall. **Elizabeth slightly lower score** due to changes in direction and ease of following.
- **Attractiveness.** Routes are essentially the same, **Equal score.**
- **Comfort.** Routes are essentially the same, **Equal score.**
- **CPTED.** Routes are essentially the same, **Equal score.**
- **Business Impact.** Elizabeth Street – Wharenui School, Pool, Food Market, Hamilton Motors, Division Dairy, Community Church. Peverel Street Baptist Church, Riccarton Medical Practice, 123 Motel. **Elizabeth lower score** due to number of businesses.
- **Resident Impact.** On-street parking loss both options, Peverel St has higher parking demand and longer route therefore more residents effected. Berms effected along Picton Ave. **Peverel Street lower** due to more properties effected.
- **Operational and Network Impacts.** Traffic impacts are likely to be **equal** with same number of signalised crossings and movement restrictions. Peverel St potentially marginally worse with cul-de-sac of Rotherham Street.

- **Ease of Construction and Costs.** Peverel St more expensive on longer route. *Peverel slightly lower score.*
- **Land requirements/other agreements.** Routes are comparable, *equal* score.

Out of the 11 criteria, Elizabeth Street rated lower than Peverel Street on 2 of the criteria, Peverel Street rated lower than Elizabeth Street on 4 criteria, and equal to Elizabeth Street on 5 criteria as presented in Table 1.

Criteria	Elizabeth Street Route	Peverel Street Route
Safety	Green	Red
Directness	Green	Red
Coherence	Red	Green
Attractiveness	Yellow	Yellow
Comfort	Yellow	Yellow
CPTED	Yellow	Yellow
Business Impact	Red	Green
Resident Impact	Green	Red
Operation / Network Impact	Yellow	Yellow
Construction / Cost	Green	Red
Land / Other agreements	Yellow	Yellow

Table 1: Summary MCA rating Elizabeth Street route vs Peverel Street route

Lochee Road – facility type summary

Peloton, Oliver Brown, 30 May 2019

This note summarises analysis of the facility types considered along Lochee Road. The recommended facility type for public consultation is a 2.5m wide two-way separated cycleway from Middleton Park to Wharenui Road. The facility type evaluation is detailed in Section 6.4.1 (page 70) of the South Express Scheme Assessment Report dated 18 January 2019 for consultation. This assessed a two-way separated cycleway, and Appendix D evaluated a greenway and two-way separated cycleway. Figure 1 presents the location of Lochee Road within the immediate network.

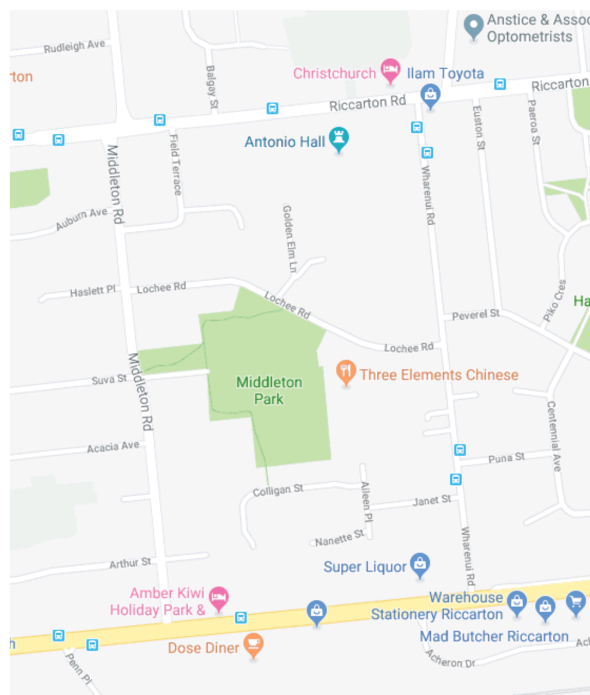


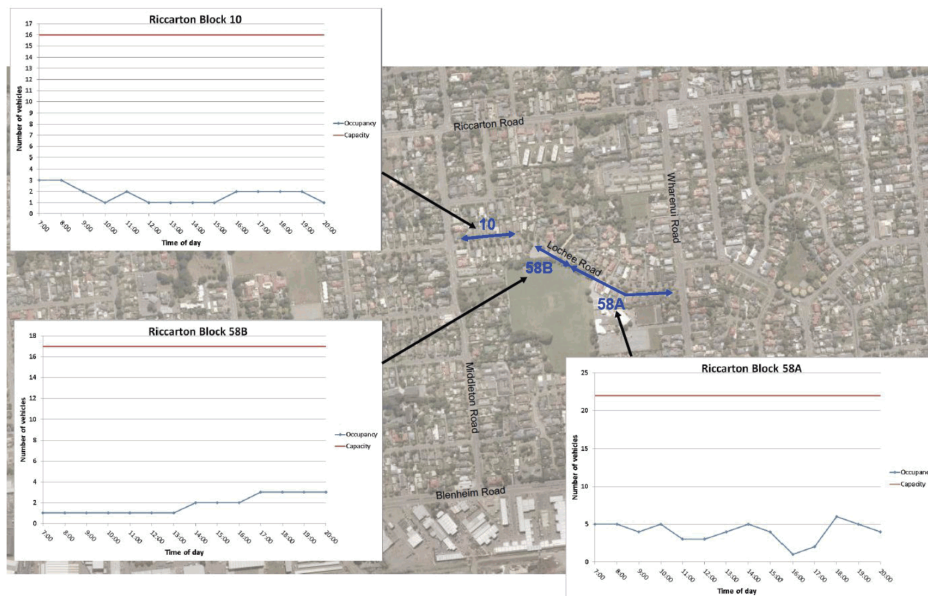
Figure 1: Network location of Lochee Road

Key facts evaluated, resulting in recommendation of a two-way facility, include:

- Lochee Road AADT modelled at 4,000 vpd in 2031. The latest tube count was 1,576vpd (in 2013) with an afternoon peak hour volume of 260vph.
- Based on the Best Practice Design Guide (BPDG), Table 9-2, the desirable traffic volume for a greenway is less than 1,000vpd, with a maximum volume of 1,500vpd. Lochee Road existing volumes (in 2013) are therefore higher than the guide and at the upper limit for a greenway. The future modelled volumes are significantly higher than the guide. This indicates that a greenway is not appropriate for Lochee Road, based solely on traffic volumes. This affects the MCA safety and comfort criteria. It is noted that other routes exceed the traffic volume recommendation, and subsequently are subject to public comment about riders feeling unsafe and may result in future traffic restrictions. For example, Trafalgar Street caters for 1,837vpd (in 2018) with a peak hour of 308vph.
- Provision of a greenway will require reduction in traffic volume along Lochee Road, which could be partially achieved, and would need to be evaluated, via a one lane section in the

mid-block, cul-de-sac in the mid-block or at Middleton / Wharenui Road intersections, or restriction of vehicle movements to left in left out. All options require resident re-routing onto Wharenui or Middleton Road.

- Council public consultation on the Ilam Road, Middleton Road, Riccarton Road intersection improvements, to address an existing crash problem, has confirmed vehicle volumes on Lochee Road will increase as a consequence of re-routing. This is a consequence of Middleton Road being restricted to left in left out at Riccarton Road.
- It is imperative to highlight that the most important factor in the MCA (Multi Criteria Analysis) process is a cycleway should be safe and perceived to be safe (BPDG Section 9-3).
- On-street parking demand is high during sporting events at Middleton Park and events at Every Nation Christchurch (Church). High parking demand is not consistent with provision of a greenway and can result in fear by new riders that car doors will open in front of them. This results in a rider being unlikely to feel as comfortable and effects perceived safety (BPDG Table 9-2). This effects the MCA safety and comfort criteria. General parking demand (outside of event times) across a typical day is observed to be low (Parking survey Appendix B4.6). Of 55 on-street parks available, peak parking demand was 12 vehicles and average 8 vehicles as presented in Figure 2.



App. B4.6

Figure 2: Parking supply and demand survey, September 2016

- Greenway is less suitable in areas with higher vehicle movements, i.e. around sports fields and some Church activities. This affects the MCA safety and comfort criteria.
- The BPDG (Table 9-2) recommends as a maximum, no more than 50% of the length of the street is used for parking. The desirable is no more than 40%. Lochee Road currently has approximately 50% of on-street parking removed, so is consistent with this greenway criteria. Refer Figure 3.



Figure 3: Lochee Road viewed west. Note no stopping lines and parking demand (April 2019)

- Incorporation of a greenway at the priority controlled Wharenui Road intersection is less coherent than a two-way (with changing facility types), and typically results in cyclist / vehicle interactions occurring closer to the intersection (due to need for short length of two-way path). This feels unpleasant compared to a two-way, where users have physical separation close to the intersection and cyclist / vehicle interaction at a mid-block crossing location. This effects the MCR safety, coherence and comfort criteria.
- The Lochee Road facility will join a two-way separated MCR on Suva Street, Middleton Road and Peverel Street. A shared path is proposed through Middleton Park, connecting Middleton Road to Suva Street. From a coherence perspective it is desirable to minimise the number of different facility types so that the MCR route is self-explaining and riders are less reliant on signage. A greenway would result in three facility types over 600m.

The above highlights multiple departures from the BPDG if a greenway were implemented, with the outcome being new riders perceiving the route to be unsafe.

Section 3 Riccarton area route selection - Lochee Road

Peloton, O Brown, May 2019

This note summarises the route option assessments undertaken in identifying Lochee Road as the preferred route linking Suva Street to Elizabeth Street. The study area is from Middleton / Suva to Elizabeth / Centennial as presented in Figure 1.

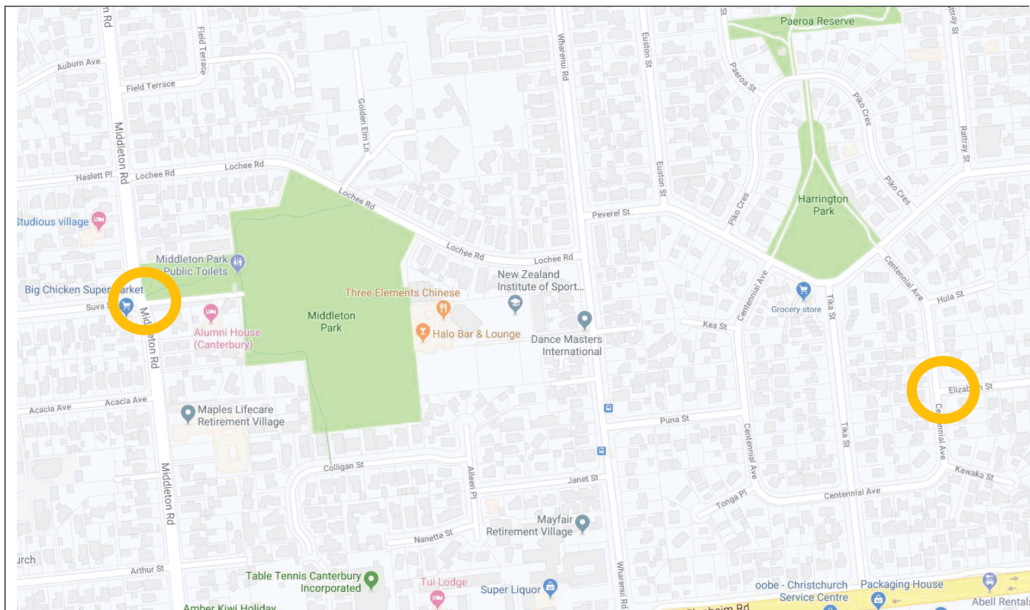


Figure 1: Study area

South Express Route Selection Report

The South Express Route Selection Report (August 2017) considered Lochee Road as part of the Riccarton area analysis, which extends from Curletts Road in the west to Hagley Park in the east, and Riccarton Road in the north to the Main South Railway line in the south. The various Riccarton route options identified were evaluated in the route selection report (Section 8, Page 41) and are presented in Figure 2 of this note. Route Option R1 (solid blue line) was identified via Multi Criteria Analysis (MCA) as the highest scoring, and therefore preferred route, through the Riccarton area.

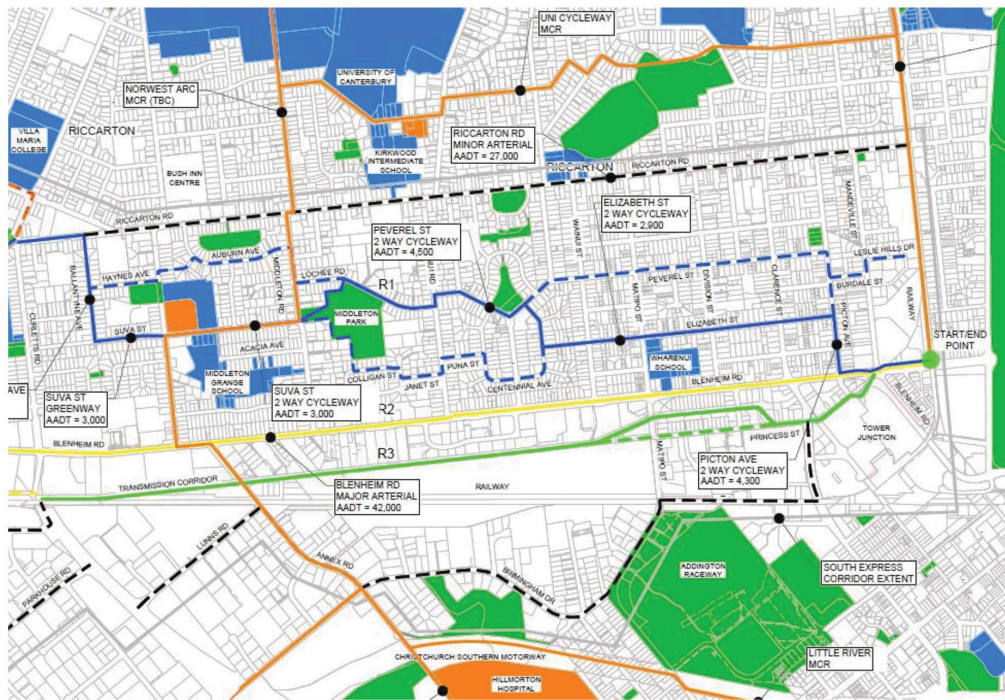


Figure 2: Route selection report – Riccarton area route options

In the vicinity of Middleton Park, Option R1 (solid blue line) traverses Suva Street, Middleton Park, Lochee Road, Peverell Street and Centennial Ave as presented in Figure 3. Figure 3 also presents sub-options to R1 as dashed blue lines.

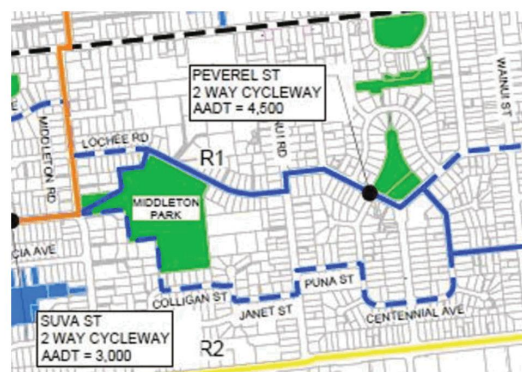


Figure 3: Route Option R1 via Lochee Road, note alternatives in dotted blue.

The two sub-options to R1 identified are:

1. Middleton Road, western section of Lochee Road, and
2. South route via Middleton Park, Colligan Street, Janet Street, Puna Street and Centennial Ave.

The MCA identified CPTED concerns in Middleton Park at night and recommended the proposed shared path be located close to Lochee Road to maximise passive observation from the street and

adjacent residential properties. The Colligan Street route is within Middleton Park for 100 metres longer than the preferred route and exits via a narrow accessway (about 2.5m wide), resulting in a lower CPTED and comfort score through the park. While not detailed in the route selection report for this specific location, the Lochee Road section of Option R1 was preferred due to connectivity to Harrington Park, the Grocery Store (opposite Harrington Park), less changes in direction for riders, more coherent, more attractive and better CPTED.

Public Consultation

Public consultation submissions, which closed in April 2019 (note further engagement concluded in June 2019), identified an alternative route for consideration that avoided use of Lochee Road. The route is the red line presented in Figure 4 and described as:

1. Middleton Park, carpark and right of way at 66A Wharenui Road, Wharenui Road to either Peverel or Puna Street.

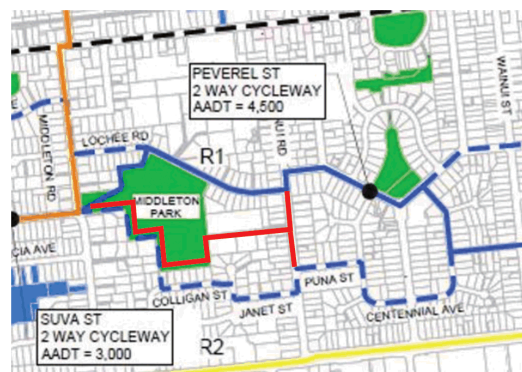


Figure 4: Public submissions route, red line.

The red route has subsequently been evaluated using the MCA criteria adopted during the route evaluation phase. The results are presented in the following section, with direct comparison to the highest scoring Option R1 identified in the route selection report.

MCA Considerations:

This compares Lochee Road to the Middleton Alternative route from the park connection with Middleton Road to the intersection of Wharenui Road with Peverel Street.

- **Safety.** Middleton Alternative has less interaction with vehicle traffic on road due to less driveways, however has car park conflict and higher conflict with pedestrians / park users within the park. Severity of crashes likely higher on Lochee route, therefore **slightly higher score Middleton Alternative.**
- **Directness.** Middleton Alternative is 220m longer (35%), which is greater than the cyclist rerouting distance. **Middleton Alternative lower score.**
- **Coherence.** Middleton Alternative has a higher number of turns (8 vs 4); Both have two facility types; Middleton Alternative travels south of desire line to Peverel Street and less intuitive to follow. **Middleton Alternative lower score.**
- **Attractiveness.** Middleton Alternative more attractive due to additional distance in park. **Middleton Alternative higher score.**
- **Comfort.** Routes are essentially the same, **Equal score.**

- **CPTED.** Middleton Alternative perceived to be less safe due to distance in park and right of way. **Lochee Road higher score.**
- **Business Impact.** Lochee Road, parking impact on Every Nation Christchurch (Church). Middleton Alternative parking impact on Three Elements Chinese, New Zealand College of Massage, New Zealand Institute of Sport and Dance Masters International. Business parking removal in car park. **Middleton Alternative lower score.**
- **Resident Impact.** On-street parking loss both options (approximately 16). Both routes high parking demand during sporting events, Lochee more frequent with Church. **Lochee Road lower** due to more properties effected (33 vs 25).
- **Operational and Network Impacts.** Traffic impacts are likely to be **equal** with same number of signalised crossings. Lochee Road narrowing supports local network via discouraging rat-running.
- **Ease of Construction and Costs.** Middleton Alternative more expensive on longer route with land purchase. **Middleton Alternative lower score.**
- **Land requirements/other agreements.** Middleton Alternative requires land purchase or easements with multiple properties owners / tenants with associated likely delays. **Middleton Alternative lower score.**

Out of the 11 criteria, Lochee Road rated lower than the Middleton Alternative on 3 of the criteria, Middleton Alternative rated lower than Lochee Road on 6 criteria, and equal to Lochee Road on 2 criteria as presented in Table 1.

Criteria	Lochee Road Route	Middleton Alternative Route
Safety		
Directness		
Coherence		
Attractiveness		
Comfort		
CPTED		
Business Impact		
Resident Impact		
Operation / Network Impact		
Construction / Cost		
Land / Other agreements		

Table 1: Summary MCA rating Lochee Road route vs Middleton Park Alternative route

Summary and Conclusion

The route assessment report identified Option R1 (blue) as the preferred route through the Riccarton area. This included a section of Lochee Road. Public consultation identified an sub-option that avoids Lochee Road. This is achieved via a longer path within Middleton Park and utilising a right of way on private property.

MCA comparison of the two routes indicates the Middleton Alternative has benefits for safety, attractiveness and resident impacts and is equal for comfort and network impacts. It has disbenefits for directness, coherence, CPTED, Business impacts, cost and land requirements. The MCA ultimately indicates that when all evaluation criteria are considered Lochee Road remains the preferred route.

Middlepark Road – St Thomas School pedestrian crossing

Peloton, O Brown, May 2019

This note summarises the evaluation undertaken in determining whether a pedestrian zebra crossing is warranted across Middlepark Road outside St Thomas School.

The guideline used for the evaluation is the NZTA Guidelines for Selection of Pedestrian Facilities. The outcome is that **no formal facilities are required**, therefore a zebra crossing is not required, and the proposed raised platform could be removed. It is Peloton's position that the proposed raised platform is retained to assist in guiding pedestrians and people on bikes to the preferred crossing position.

Key considerations in concluding that a zebra crossing is not required are:

- Assessment using NZTA guideline confirms crossing is not justified based on LOS A
- Potential for unsafe operation of a zebra outside of school hours, a consequence of low pedestrian volumes during these times
- In general, CCC is not installing zebra crossings at road mid-blocks partially in response to driver behaviour (failing to give way, or proceeding when pedestrian is still crossing). They are generally installed at left turn slip lanes.
- A zebra could be considered if a cyclist priority crossing was being proposed (ie traffic gives way to cyclist), however the traffic volumes are above the recommended threshold (1,000vpd) for this to be considered. While Ilam Road has a higher traffic volume, it clearly meets the zebra crossing warrant and is a unique environment through the University.

The following bullet points present the NZTA assessment process:

- Table 1 – road classification is B
- General guidance is do not use zebra crossings to reduce crash risk. Below 10,000vpd crash risk for formal vs informal is comparable, above 10,000vpd crash risk for formal is higher.
- Based on guideline (Figure 1), assessment of crossing type is undertaken based on **Section 3 – Specific Access Provision** (Figure 2). Outcome of Section 3 assessment indicates to evaluate using **Section 1 – Level of Service**. This is based on young people being present and weekend sports/sports ground activity outside the school commuter period.
- **Section 1 – LOS assessment** (Figure 3):
 - Step 1 – ped crossing time 8 secs
 - Step 2 – ped delay based on Table 4 is 5 secs (based on 424vph at peak times from 2018 CCC count; 631 students with 50% at Middlepark gate, 50% cross road therefore 157 students in peak 1/2hr, 200 students/hr.
 - Step 3 – Ped LOS is A to B, more A given 5sec delay.
 - Step 4 – Table 2 options for improvement include zebra, signals, median refugees, kerb extensions.
 - Step 5 – Existing pedestrian crossing LOS is acceptable (LOS A) therefore no intervention is required.

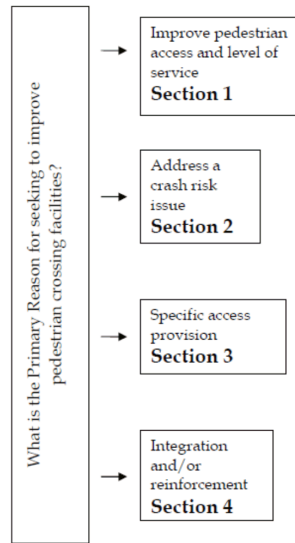


Figure 1

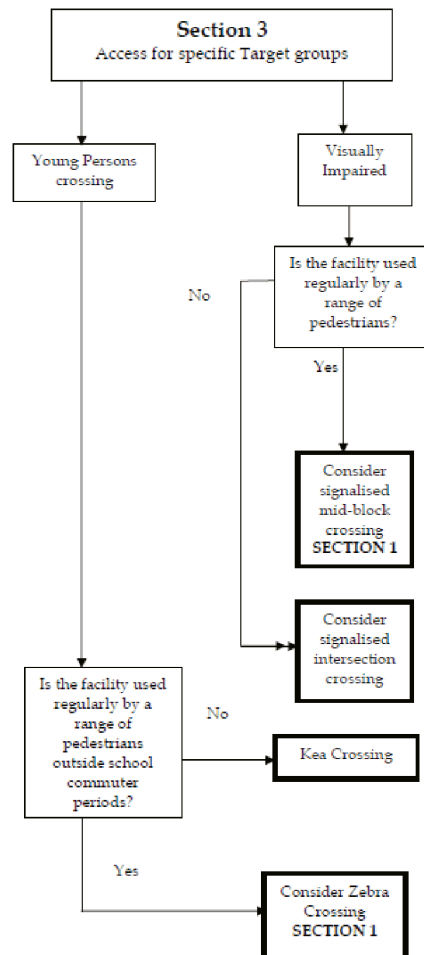


Figure 2

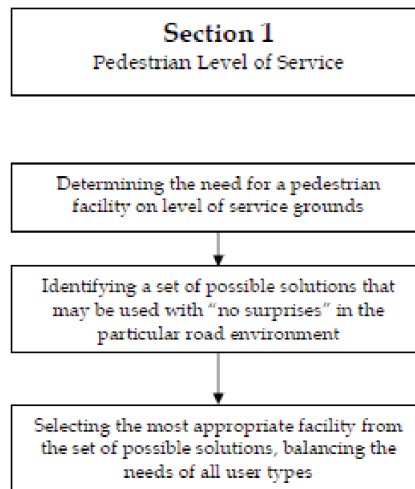


Figure 3

Taggart versus Middlepark Routes

Peloton, O Brown, May 2019

This note compares the Taggart Place and Middlepark Road routes, from an MCR perspective, from the Epsom / Taggart Place Intersection to the Middlepark Road / Reserve at 118 Middlepark Road as presented in Figure 1.



Figure 1: Study area

Middlepark Road

- 62 residential houses/units including Epsom (37 houses/units adjacent the MCR, 25 houses/units south side of Middlepark Road), 1,900vpd (2018 count), future 3,000vpd (2031 CAST)
- Kerb and deep dish
- Bus route
- 2-way separated cycleway north side of road
- Street lighting Luminaries to be replaced with LED due to age of existing hardware
- Refer Figure 2

Taggart Place

- 21 residential houses, 200vpd (estimate)
- Kerb and flat channel
- Greenway & off-road path
- Need to check street lighting levels to determine if upgrade is required
- Refer Figure 3

Comparison

- **Safety** – Middlepark Road has higher traffic volume and is on a bus route, however riders are separated from this. Cross 15 driveways catering for 37 units. Taggart Place riders mix with low volume low speed traffic and cross 21 driveways/units. It is likely target riders

(interested but concerned group) would perceive the greenway to be less safe than a two-way separated. **Equal score** based on rider perception of safety.

- **Direct** – Middlepark route 8m longer (363m vs 355m). **Equal score**.
- **Coherent** – Middlepark has less turns (1 vs 4), less facility types (1 vs 3), provides connections to more residential units (37 vs 21) and better future connectivity to Sockburn Park and corner shops via Greenhurst Street. **Middlepark higher score**.
- **Attractive** – Middlepark has limited opportunity for enhancement. Taggart is lower volume route with opportunity for enhancement of the park area. **Taggart higher score**.
- **Comfort** – Routes are essentially the same, **Equal score**
- **CPTED** – Middlepark is adjacent roadway with observation by residential units; Taggart has some concerns through park at night but can be lit. **Middlepark slightly higher score** based on park.
- **Business** – Taggart retains more on-street parking on Epsom Road (10 spaces retained) and Middlepark Road (15 spaces retained). Business parking higher on Epsom Road. Middlepark removes 25 spaces. **Taggart higher score** based on parking retained.
- **Residents** – Taggart Street retains 25 on-street parks, although Middlepark parking demand not observed to be high. **Taggart higher score** based on parking retained.
- **Operational and Network** – Middlepark design caters for bus route. **Equal score**
- **Ease of construction and cost** – Length of routes the same, Taggart increased cost for waterway crossing. **Equal score**
- **Land requirements / easements** – Middlepark avoids waterway and park consenting requirements. **Middlepark higher score**.

Out of the 11 criteria, Middlepark Road rated higher than Taggart Place on 3 of the criteria, Taggart Place rated higher than Middlepark Road on 3 criteria. The two routes are equal on 5 criteria as presented in Table 1. Middlepark rated higher for Cycle criteria and Land/Agreements. Taggart rated higher for business and resident impacts based on the retention of on-street car parks.

Criteria	Middlepark Road Route	Taggart Place Route
Safety	0	0
Directness	0	0
Coherence	1	0
Attractiveness	0	1
Comfort	0	0
CPTED	0.5	0
Business Impact	0	1
Resident Impact	0	1
Operation / Network Impact	0	0
Construction / Cost	0	0
Land / Other agreements	1	0

Table 1: Summary MCA rating Middlepark Road route vs Taggart Place route

Summary

Both routes are viable. Middlepark was identified as the preferred route due to coherence, night time CPTED visibility and avoiding the park/waterway crossing. This offers the greatest benefits to people who ride bikes.

Taggart Place minimises the loss of on-street car parks. However, parking surveys did not reveal a high demand in this section of Middlepark Road. A higher demand is observed on Epsom Road.



Figure 2 – Middlepark Road original consultation scheme

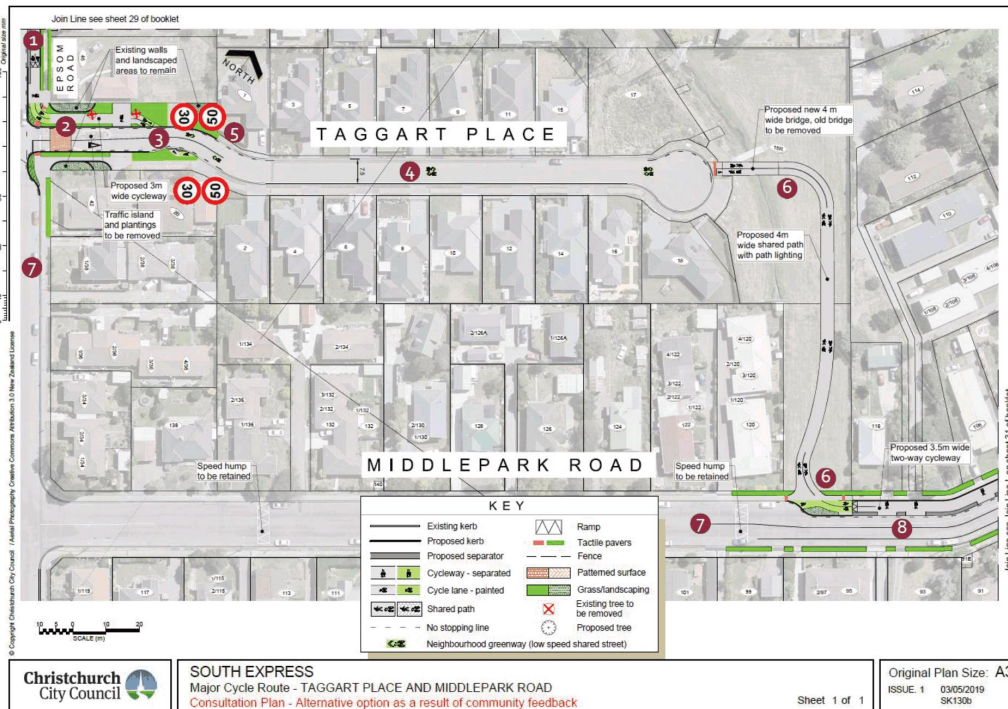


Figure 3 – Taggart Place alternative engagement scheme

Craven / Middlepark Intersection Assessment

Peloton, O Brown, May 2019

This file note documents consideration and selection of the Craven / Middlepark intersection.

Key Observations

- Intersection is currently roundabout controlled. Council believe was installed to encourage lower vehicle speeds and discourage the Yaldhurst Road (SH 73) to Main South Road (and vice versa) rat-run. It also caters for bus movements along Middlepark west and Craven Street.
- Intersection is close to St Thomas of Canterbury College, so high volume of school children and associated vehicle activity at school start / end times.
- Middlepark (west leg) 1,900vpd (2018 count); 3,000vpd (2031 CAST). No counts on the north leg.
- Craven 1,600vpd (2031 CAST)
- One intersection crash reported in 2006-16 period. Involved westbound vehicle on Middlepark turning right at Craven to continue on Middlepark losing control. Driver was under instruction and refused alcohol test. A roundabout is considered the most appropriate intersection form to control the speed of vehicles.

South Express MCR

The proposed MCR traverses the south side of Craven Street and Middlepark Road with no requirement to cross the roads at the intersection. Expected cycle volumes are in the order of 1,000cpd (2026).

Intersection Options and analysis

With consideration of the low traffic volumes two intersection options have been considered:

1. **Roundabout**, this would be a smaller offset version of the existing. The roundabout provides a form of Local Area Traffic Management by encouraging lower vehicle speeds through the intersection and discouraging the Yaldhurst Road (SH 73) to Main South Road rat-run. The slower speeds are safer for all road users and permits retention of the existing carriageway shape (road crown and crossfall) and therefore will likely be less costly to construct.
2. **Priority controlled** (Give Way or Stop), with priority along the Middlepark west to Craven route and Middlepark north being priority controlled. The proposed priority supports the existing bus route, however is likely to require carriageway re-shaping to cater for the higher vehicle speeds around the curve, which could result with increased loss of control type crashes. The T-layout with proposed priority does not discourage the rat-run as effectively as the roundabout. It could result in failure to give way type crashes.

Summary and Recommendation

The roundabout treatment encourages lower vehicle speeds, discourages rat-running, is safer for all users and likely cheaper to construct. This is the recommended intersection form.

The priority intersection does not discourage rat-running, could result with higher vehicle speeds with an increased crash rate and is likely to require reshaping of existing carriageway.

South Express Major Cycleway Route (MCR)

Peloton, Dave Aldridge, 26th June 2019

A submission has been received identifying an alternative route for the South Express from Waterloo Road to the Christchurch Southern Motorway (SH76) intersection with Sparks Road. This technical note summarises consideration of the route from an MCR perspective.

1. Background

The overall objective of the MCR's is to provide a cycleway network throughout Christchurch City. This network was developed several years ago and consisted of 13 major cycleways. The success of the cycleway network is the interlinking of the paths to each other to allow efficient and safe connectivity throughout the city. Longer term a secondary network with local links will be developed.

The ultimate goal of the South Express cycleway is to link Rolleston to the CBD, hence the current project of linking Templeton to Hagley Park. Selwyn District Council intend to build a cycleway along Jones's Road to the SDC/CCC boundary, which along with an upgraded path through Hagley Park will provide the overall goal of Rolleston to the CBD.

The proposed South Express cycleway has key connections with the Nor'West Arc and the Northern Line. These linkages are key to the overall network success.

2. Submission Review

The submission presents an alternative design to the South Express. In summary, this alternative route does not fit well with other routes that form part of the overall cycleway network. The route heads directly south through Hornby, potentially linking into the Southern Motorway Cycleway near Sparks Road. There could be some merit in considering such a route as a secondary link in the future – but it does not tie in well with the 13 major cycleways network.

There are significant constraints that will need to be overcome if a route similar to that shown below is adopted.



Below is a breakdown of the proposed alignment highlighting some of the key constraints and challenges that will be faced in making this route feasible. The route has been reviewed in a north to south direction. It has been assumed that KiwiRails' existing Industrial Line needs to remain operational.

Section 1: Waterloo Road and Rail Corridor (Gilberthorpes Road to Carmen Road)

There is CPTED issues due to the isolated location of the path, not being close to residential areas for passive surveillance and safety. The rail corridor is also very narrow with a pinch point behind The Warehouse building. There appears to be minimal width along this section and unlikely that a Major Cycleway/Shared Path can be accommodated in such a narrow and constrained section. KiwiRail are likely to oppose a path along this section due to the narrow corridor width.

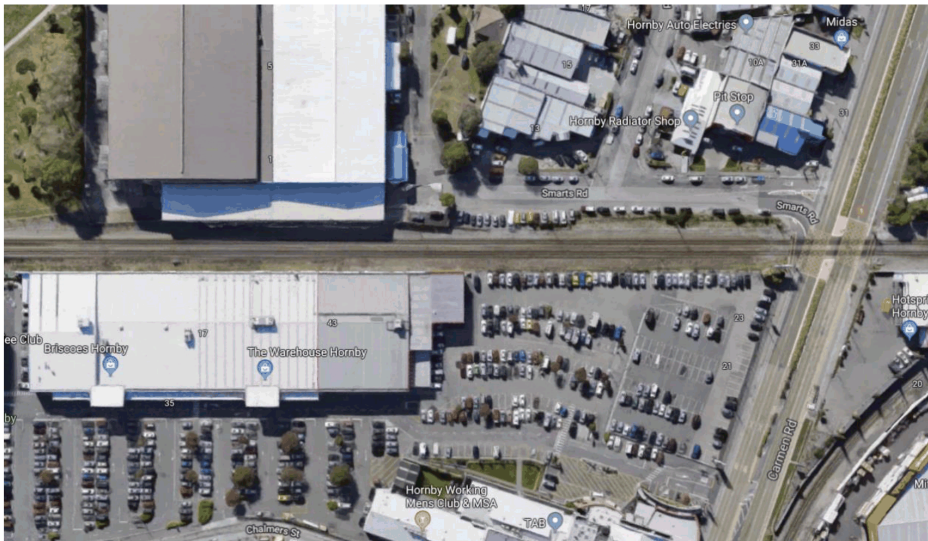


Photo 1 - Aerial photo showing the existing rail corridor with large buildings to the north and south. SH1 Carmen Road is towards the right

The cycleway/shared path would need to cross SH1 Carmen Road to the eastern side with traffic signals. It would be unsafe to go south on the western side of SH1 Carmen Road due to the very busy access into the large carparks servicing the Hornby Workingman's Club, The Warehouse, Briscoes etc. and Chalmers Street located slightly further south.

KiwiRail will require ALCAM and LCSIA assessments of the road/rail crossing. The outcome will more than likely require electronic gates on each side of the road crossing adjacent to the traffic signals. Based on current information, the cost for these gates and interlocking to the rail signals would be in the range of \$0.5M to \$1.0M.

Continuing south (refer photo 2), the available path width adjacent to Hot Springs Spa is approximately 2.5m which is too narrow to safely accommodate a shared footpath/cycleway adjacent to a very high volume road (SH1). Land acquisition would be required here.

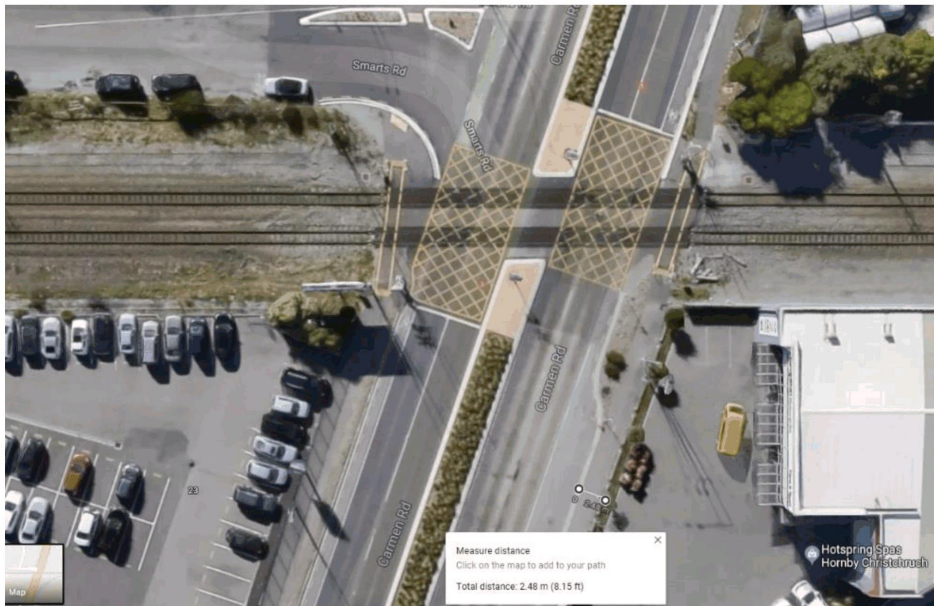


Photo 2 - Aerial photo showing the existing SH1/rail crossing and 2.5m width available towards the bottom of the photo.

Section 2: SH1 Carmen Road is a very high-volume road (approx. 30,000vpd) and has KiwiRails industrial line to the east, very close to the road carriageway. It is very unlikely that adequate width can be achieved for a shared path. From aerial photos, there appears to be 6m offset from centre of rail track to the Carmen Road kerb and channel. Refer Photo 3. KiwiRail require an absolute minimum width of 4m from track centreline to edge of fencing. While there is no fencing along this section currently, if a path was constructed KiwiRail would require fencing as part of trespassing and safety issues. This results in about 2m being available for streetlight poles, fencing and offsets to the road carriageway.

This is substandard for a shared or dedicated cycle path. Therefore, this is not feasible unless the track is realigned or SH1 shunted west, which if it physically could be achieved, would be very expensive.



Photo 3 – Looking south along SH1 Carmen Road with minimal separation to KiwiRails Industrial Line.

Section 3: Further south, the shared path would cross the SH1/Main South Road intersection. This intersection is a very high capacity intersection that is already under congestion pressure. While this intersection has not been specifically discussed with the NZ Transport Agency, it is considered highly unlikely that the NZ Transport Agency would support adding a cycle phase to an already very busy intersection. The NZ Transport Agency has previously indicated they would not support cycle crossings at the SH1 Carmen Road intersections with Waterloo and Buchannan Roads.

If it was considered feasible, the crossing path would be extremely difficult to accommodate with the left turn lane, train tracks, KiwiRail barrier arms, and associated controllers etc. The crossing distance would be significant for a pedestrian or cyclist, impacting on the efficiency of the intersection.

KiwiRail will require ALCAM and LCSIA assessments of the road/rail crossing. The outcome will more than likely require electronic gates on the southern side of the road crossing adjacent to the traffic signals. Based on current information, the cost for these gates and interlocking to the rail signals would be in the order of \$0.5M.



Photo 4 – Complex and very busy SH1 Carmen/Shands Road intersection with Main South Road.
Somehow the shared path would need to cross Main South Road

Section 4: Continuing parallel to Shands Road, opposite Dressmart the rail corridor is only 10m wide (refer Photo 5). This 10m rail corridor width appears to be reasonably consistent from Main South Road southwards. This width is inadequate to cater for a shared path, as Kiwirail require an absolute minimum 4m offset from track centreline.

Therefore, assuming the rail track is centrally located, and KiwiRail accepted the 4m offset, the potential width available from the rail corridor is only 1.0m. There is an existing footpath of about 1.5m width (refer photo 6) so potentially a 2.5m width could be achieved, however this needs to include fencings, lighting poles, signage etc. The available width would not be adequate for a shared path facility.

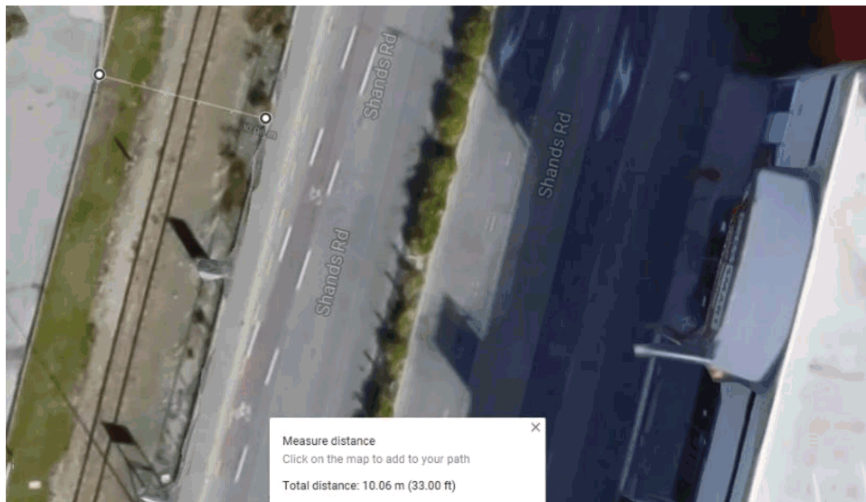


Photo 5 – Narrow rail corridor opposite the Shands Road Dress-Smart access



Photo 6 – Looking south along Shands Road opposite Dress-Smart

Section 4: The Shands Road / Amyes Road intersection is a reasonably busy intersection with a skewed rail crossing of the Industrial Line. As noted previously, the rail corridor is 10m wide and has limited room to contribute to the shared path (possibly up to 1.0m). It is highly unlikely a shared path can be easily accommodated through this intersection and adjacent land parcels.

KiwiRail will require ALCAM and LCSIA assessments of the road/rail crossing. The outcome will more than likely require electronic gates on each side of the road crossing adjacent to the traffic signals. Based on current information, the cost for these gates and interlocking to the rail signals would be in the range of \$0.5M to \$1.0M.

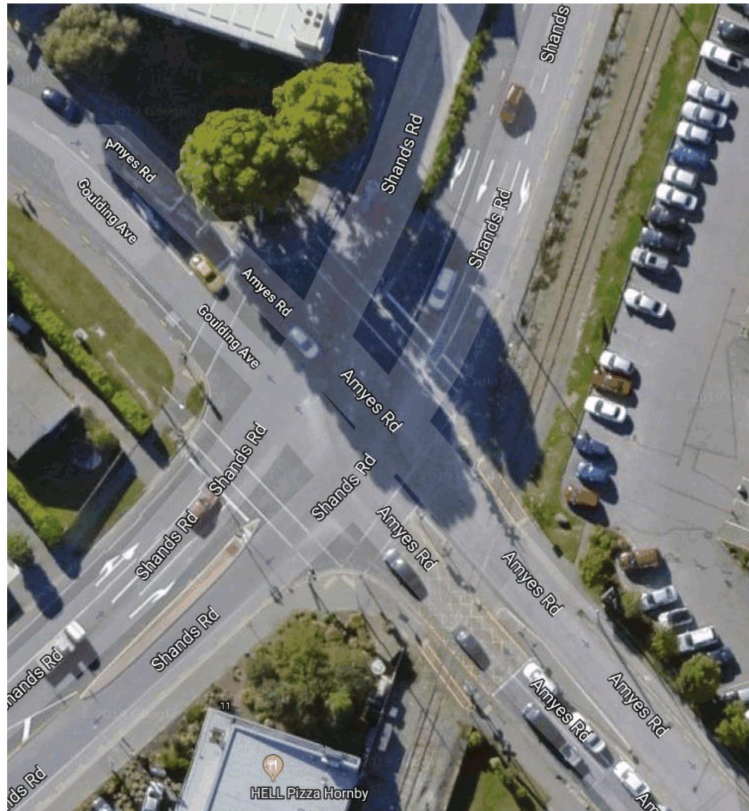


Photo 7 – Shands Road / Amyes Road Intersection and the Industrial Line rail crossing

Section 5: South of Amyes Road the rail corridor remains at 10m but heads into an industrial area (refer photo 8) as Shands Road veers off in a southwest direction. This area creates significant CPTED and security issues with very little passive surveillance. This environment would not be comfortable for cyclists and/or walkers especially during the hours of darkness.

At some stage along the rail corridor the proposed alignment will veer further east onto Branston Street before linking into Springs Halswell Reserve (refer photo 9) and ultimately the Springs Road roundabout and Southern Motorway's shared path.

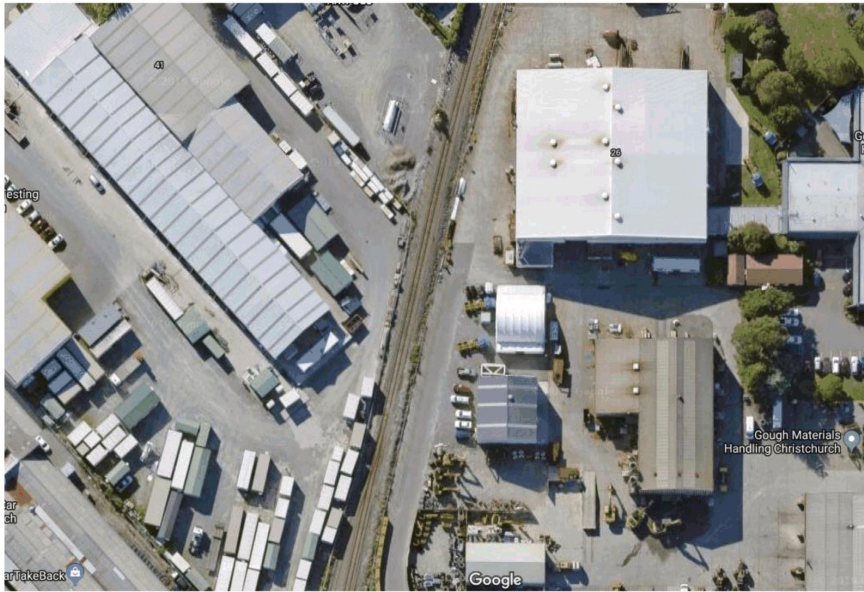


Photo 8 – South of Shands Road leading into the industrial area and away from public surveillance



Photo 9 – The proposed route along the south end of Branston Street then weaving across to Springs Halswell Reserve and then onto the Springs Road roundabout.

3. Conclusion

While there could be some merit in providing a north/south link from the Southern Motorway to Hornby, the suggested route has many physical constraints that will be very challenging and expensive to overcome. The proposed route does not connect into the other 12 Major Cycleway Routes (MCR's) and does not align well with the intent of the 13 major cycleways and overall network.

South Express Consultation feedback Carmen Road technical response

Peloton, O Brown, June 2019

Carmen Road – Pylon Corridor to Waterloo Road

This note considers the section of Carmen Road from the Pylon Corridor in the north to Waterloo Road in the south. Refer Figure 1. The Carmen Road section from Waterloo Road to the Railway corridor has not been included, with KiwiRail confirming the Railway corridor is not available between Kyle Park and Waterloo Road (MWH / KiwiRail Property Manager meeting January 2015).



Figure 1: Carmen Road study area

Key Statistics:

- Carmen Road is an NZTA controlled Major Arterial (SH1) catering for 30,000vpd (AADT) and 8% HCV (NZTA count 2017). This provides a strategic north south link along the western fringe of Christchurch City.
- Carmen Road is identified as a Strategic Freight Route in the CTSP.
- Caters for Bus Routes No.125 and No.140 each with 30-minute frequencies.
- Road reserve 30m wide.

- Typical midblock cross section (west to east); 4.2m property boundary to kerb face, 1.8m cycle lane, 2x 3.5m traffic lanes, 4m raised median, 2x 3.5m traffic lanes, 1.8m cycle lane, 4.2m kerb face to property boundary.

Land Use and access:

- Western side
 - Education Zone (Hornby High School) – this has one vehicle exit at the northern extent of the school.
 - Residential Zone – 39 residential houses (with 25 associated driveways) located in the Waterloo Road to Buchanans Road section. Houses north of Buchanans Road have no direct access to Carmen Road.
 - Open Space – Carmen Gardens
 - Two local side roads – Bella Rosa Drive (cul-de-sac catering for 124 houses approx.) and Tirangi Street (Connects to Hei Hei Road and caters for 80 houses approx. plus vehicle through movements).
- Eastern side
 - Residential Zone – houses are all north of Buchanans Road and have no direct access to Carmen Road.
 - Business Zone – 39 businesses (approx.) serviced via 21 driveways. Includes Caltex diesel stop and Z Service station (high volume) and other activities with heavy vehicle activity (Tegal Foods).
 - One side road – Halwyn Drive (connects to 30 businesses approx.) connects to Waterloo Road and is used by heavy vehicles.
- Bus Routes and Stops
 - Two bus routes. There are 6 bus stops provided, 3 in each direction, all indented clear of the Carmen Road through traffic lane.

Crash History – Cyclists and Pedestrians:

The five year pedestrian and cyclist crash history (2013-17 + 2018) has been extracted from CAS for the section of Carmen Road from the power pylon corridor to the railway line. There have been nine reported crashes; five pedestrian (1 serious, 3 minor, 1 non-injury) and four cycle (1 fatal, 1 serious, 1 minor, 1 non-injury). Figure 2 presents the crash diagram from CAS (note the 'Other' crash is a moped and not included in the summary). Key crash notes are:

- All crashes were during daylight hours
- All in fine dry weather (except 1 pedestrian)
- All at an intersection or driveway (except 1 cycle)
- All cycle crashes involved a truck
- Three cycle crashes were in the southbound direction. Cycle fatality was dual left turn off Waterloo Road to head north.
- Three pedestrian crashes at the Carmen / Buchanans Intersection



Figure 2: CAS reported crashes (2013-2017)

MCA Considerations

This compares Carmen Road to Hei Hei Road, the preferred route.

- **Safety.** Carmen Road less safe with higher traffic volumes, freight movements on Major Arterial that MCRs try to avoid, pressure for vehicles entering driveways. **Carmen lower score.**
- **Directness.** Hei Hei Road 200m longer (15%), which is at top end of cyclist rerouting distance. **Hei Hei lower score.**
- **Coherence.** One more turn on Hei Hei (Waterloo onto Pylon Corridor); Hei Hei two facility types, Carmen one; Hei Hei better connectivity to residential areas, St Bernadettes School, 126 Hei Hei and residential area north of Buchanans Road. Carmen limited connectivity to community. **Carmen lower score** due to connectivity.
- **Attractiveness.** Carmen Road unattractive with high traffic volumes and HCV movements with little points of interest. Hei Hei traverses Buchanans Road under trees and is on lower volume route. **Carmen lower score.**

- **Comfort.** Carmen Road narrow facility between high volume road and high property fences not comfortable to ride on. Hei Hei wide facility to desirable width and property offsets. **Carmen lower score.**
- **CPTED.** Hei Hei has activation with properties, though Carmen observance with traffic. **Equal score.**
- **Business Impact.** Two schools on Hei Hei Road and Carmen Road however less impact via Carmen. **Hei Hei Road lower score.**
- **Resident Impact.** On-street parking loss Hei Hei Road one side. Carmen Road land purchase from 25 properties to achieve boundary and road off-sets for safety and operation (required due to high traffic volumes and number of accessways). **Carmen Road lower score.**
- **Operational and Network Impacts.** Traffic impacts are **equal** with same number of signalised crossings (noting new mid-block signals have less impact than modified intersection signals), Carmen does not align with CTSP; street cleaning equal with both Hei Hei and Carmen requiring narrower street sweeper.
- **Ease of Construction and Costs.** Hei Hei Road easy construction on low volume road; Carmen Road property purchase off 25 properties – high cost and difficult with high traffic volumes on NZTA controlled road. **Carmen Road lower score.**
- **Land requirements/other agreements.** Carmen Road land acquisition from 25 properties – likely programme delays; NZTA agreement required for Carmen Road. **Carmen Road lower score.**

Out of the 11 criteria, Carmen Road rated lower than Hei Hei Road on 7 of the criteria, Hei Hei rated lower than Carmen on 2 criteria, and equal to Carmen on 2 criteria as presented in Table 1.

Criteria	Hei Hei Road Route	Carmen Road Route
Safety	Green	Red
Directness	Red	Green
Coherence	Green	Red
Attractiveness	Green	Red
Comfort	Green	Red
CPTED	Yellow	Yellow
Business Impact	Red	Green
Resident Impact	Green	Red
Operation / Network Impact	Yellow	Yellow
Construction / Cost	Green	Red
Land / Other agreements	Green	Red

Table 1: Summary MCA rating Hei Hei Road route vs Carmen Road route

Potential Carmen Road two-way cycleway or shared path

Based on the Christchurch Cycle Design Guidelines, Part B: Design Principles Best Practice Guide, Rev B, a 3.5m wide two-way separated cycleway located 5m from the property boundary and 1m from the road traffic lane is recommended, with a 3 m wide cycleway and 3m offset from property boundaries being the minimum widths.

Design guidance for shared paths doesn't cover path offsets to boundaries as they are more typically used in environments away from the roadway, where vehicles exiting properties along the path do not pose a hazard to cyclists. If a shared path were to be considered for Carmen Road, the offset to

the boundary would need to remain as with a cycleway, meaning the footprint of the facility would not be any less.

The sketch layout presented in Figure 3 proposes a 3m wide two-way shared path located 3m from the property boundary and 1m from the road traffic lane. This is considered the absolute minimum dimensions adjacent high boundary fences and an arterial road carrying 30,000 with high HCV use. This effectively requires a 2-3m strip of land from the front of 25 residential properties.



Figure 3: Potential Carmen Road Shared Path

Traffic Modelling of the Carmen Road shared crossing

Traffic signals are required for cyclists and pedestrians to cross Carmen Road. Three at-grade traffic signal controlled crossing options were evaluated for crossing Carmen Road, as presented in Figure 4 and described as:

1. Option 1 – Two-stage mid-block crossing near transmission power pylon corridor (yellow route).
2. Option 2a – Signalised crossing of Carmen Road north arm to Carmen / Buchanans Road intersection (pink route).
3. Option 2b – Signalised crossing of Carmen Road south arm and Buchanans Road east arm to Carmen / Buchanans Road intersection (orange route).

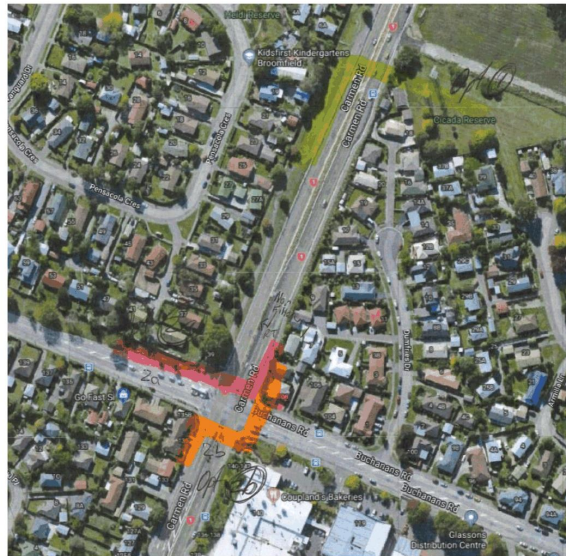


Figure 4: Carmen Road shared path crossing options

The traffic modelling software LinSig was used, with the key outputs being:

- Option 1 has the smallest increase in delay of all options (less than 5 seconds overall) and this only affects the Carmen Road North approach. Signals will be coordinated with the Carmen/Buchanans intersection so vehicles only stop once when traveling along Carmen Road, however there will be some delay for traffic that has turned off Buchanans Road.
- Option 1 maintains the current intersection level of service (LOS) of C in both the morning and evening peak periods, while Options 2a and 2b result in a lower level of service (reduced from C to D) in the evening peak
- Option 2a increases delay on Buchanans Road West in the morning and evening periods, while having the potential to reduce delay on Carmen Road.
- Options 2b increases delay on Carmen Road in the morning peak. Delay and queues increase on all legs, except Carmen Road south, in the evening peak.

The modelling identified that Option 1 has no impact on the Carmen / Buchanans Road intersection operation and minimal delay to Carmen Road traffic. Both Option 2a and 2b increase delay and queue lengths more than Option 1 and result in a LOS reduction to D in the evening peak. Option 1 is recommended from a traffic capacity and efficiency perspective.

Carmen Road grade separated crossing options and costs

Consideration has been given to provision of an overbridge or underpass to cross Carmen Road in the vicinity of the transmission pylon corridor.

Underpass

The existing stormwater box culvert under Carmen Road was constructed in 2011 consisting of two units that are each 1.5m high by 2.5m wide. The culvert invert is below the surrounding groundwater table, and at the time Carmen Road was two traffic lanes. The cost to construct the same culvert now, with the same conditions based on the 2011 cost, is approximately \$700k. The additional cost to make this compliant for pedestrian and cycle, with custom 2.5m high culverts, lighting, water pumps and approach grade is in the order of \$500k. Additional costs are also incurred with Carmen Road now being 4 lanes wide. The estimated cost for a compliant underpass of Carmen Road is in the order of \$1.2m. Constructing this would result in significant disruption to traffic during the course of construction.

An underpass would also have social safety/CPTED concerns, particularly as users wouldn't have a clear view ahead due to the requirement to have a bend in the underpass. The length of the ramps required would result in deviations for some path users to access the underpass, meaning some coming from other directions along other paths may not use it, and cross over the road instead.

Overbridge

The preliminary cost estimate for a Carmen Road overbridge is \$3.5m This is based on a 25m long, 5m wide and 7m high bridge with approach ramps at 1:12 grade (in the order of 84m). The same cost was estimated for the crossing of Blenheim Road on the Nor'West Arc. This would result in similar deviations for some path users as an underpass.

8. Resolution to Exclude the Public

Section 48, Local Government Official Information and Meetings Act 1987.

I move that the public be excluded from the following parts of the proceedings of this meeting, namely items listed overleaf.

Reason for passing this resolution: good reason to withhold exists under section 7.

Specific grounds under section 48(1) for the passing of this resolution: Section 48(1)(a)

Note

Section 48(4) of the Local Government Official Information and Meetings Act 1987 provides as follows:

“(4) Every resolution to exclude the public shall be put at a time when the meeting is open to the public, and the text of that resolution (or copies thereof):

- (a) Shall be available to any member of the public who is present; and
- (b) Shall form part of the minutes of the local authority.”

This resolution is made in reliance on Section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public are as follows:

ITEM NO.	GENERAL SUBJECT OF EACH MATTER TO BE CONSIDERED	SECTION	SUBCLAUSE AND REASON UNDER THE ACT	PLAIN ENGLISH REASON	WHEN REPORTS CAN BE RELEASED
9	PUBLIC EXCLUDED INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE MINUTES - 10 JULY 2019			REFER TO THE PREVIOUS PUBLIC EXCLUDED REASON IN THE AGENDAS FOR THESE MEETINGS.	