Wellington City Council

Wellington City Urban Cycleways Programme

CBD to Ngauranga Cycleway Indicative and Detailed Business Case

October 2016

Executive Summary

Introduction

The busiest cycle route in Wellington is located on Hutt Road/ Thorndon Quay between Ngauranga Gorge and the CBD. This route provides for people on bikes to (and from) the CBD from the northern and some of the western suburbs, as well as from further afield, including the Hutt Valley. The Hutt Road/ Thorndon Quay route carries twice as many cyclists as ten years ago and the number of people cycling along this route is increasing year on year and is set to continue at a greater pace than population growth as a consequence of improvements planned to the route between Petone and Ngauranga.

The corridor performs poorly from a safety perspective, with the proportion of cycle crashes (both on and off road) significantly higher than local, regional and national averages. The off-road, two-way cycle path between Ngauranga Gorge and Tinakori Road does little to offer a level of attraction for future users, especially those who are 'interested but concerned', with the path obstructed by cars (parked both adjacent to and on the path itself), lamp posts, commercial signs and bus stops.

Improvements are being proposed to the Hutt Road section (Ngauranga - Hutt Road/ Aotea Quay intersection, as shown in Figure A, over the page) to make it safer and more convenient for people on bikes and on foot to get around. The improvements involve upgrading the shared path to a high quality separated cycle path and pedestrian footpath, and removing parking and other obstacles. Improvements to the Thorndon section (Hutt Road/ Aotea Quay intersection – CBD) will be progressed at a later stage when a decision has been made as to whether the route follows Aotea Quay or Thorndon Quay.

This combined Indicative and Detailed Business Case is for the whole CBD – Ngauranga corridor and builds on the Strategic and Programme Business Cases for the Wellington Cycle Network developed in 2015. The purpose of this report is to support the Council's request for funding from the Urban Cycleways Programme and National Land Transport Programme (NLTP) fund, both administered by the NZ Transport Agency.

The CBD – Ngauranga cycleway project is one of the three packages included in Wellington City's original Urban Cycleways Programme; the aim of which is to accelerate completion of urban cycle networks and support a step-change in cycling participation. The CBD – Ngauranga cycleway project was included with the same level of funding in the refreshed Urban Cycleways Programme that Councillors unanimously agreed to on 11 August 2016.

Figure A Wellington CBD – Ngauranga, two sections

The Problems

The three key problems relating to cycling in Wellington City identified in the Strategic Case and confirmed in the Programme Business Case are:

1. Poor Cycling Perception - Poor cycling uptake, due to the perception that cycling is unsafe and inconvenient, is reducing cycling's contribution to the transport system
2. Unappealing Environment - An unappealing environment for people on bikes is reducing transport and recreation choices for Wellingtonians
3. High Crash Risk - Unforgiving infrastructure and poor road user behaviour is resulting in significantly higher than average rates of harm to people on bikes

These are directly relevant to the project and align with the specific problems that have been identified on the existing path, as the unappealing environment and unforgiving infrastructure (conflict with turning and parked vehicles, obstacles, inadequate width and poor surface) is leading to a high crash rate which is in turn impacting on safety perceptions and greater cycling uptake.

Investment Objectives and Outcomes

The cycleway is part of the Council's investment in a safe and comprehensive cycle network to give people more transport choice, reduce congestion and emissions, and make Wellington a more attractive place to live, work and visit. Together with the Ngauranga to Petone section, the provision of improved walking and cycling facilities will unlock existing suppressed demand for walking and cycling between Wellington and Hutt Valley and reduce congestion along State Highway 2. Providing a fully segregated shared path that is safe and efficient will help to change perception about the safety risk of walking and cycling, as well as incident risk.

The agreed investment objectives for all Wellington Cycle Network projects are:

1. **Level of Service:** Achieve a high Level of Service for cyclists within an integrated transport network.
2. **Network Efficiency:** Improve cycling infrastructure and facilities so that cycling makes a much greater contribution to network efficiency, effectiveness and resilience.
3. **Cycling Uptake:** Cycling is a viable and attractive transport choice.
4. **Cycle Safety:** The crash rate, number, and severity of crashes involving people on bikes are reduced.
5. **Wellington City:** Provide transport choices by increasing the opportunity for people to ride bikes so as to improve the sustainability, liveability and attractiveness of Wellington.

The Project

The focus of the study is to assess the long list of options and identify a preferred route and cycleway option that will make it safer and more convenient for people on bikes and on foot. The preferred option must also deliver the vision for the regional cycling network between Wellington and the Hutt Valley.

Option Development/ evaluation

The long list of options for the Wellington CBD - Ngauranga corridor were developed from previous studies which have looked at both the most viable route option and type of cycleway facility. The long list identified eight options:

1. Do Nothing
2. Harbour-side
3. Hutt Road (off-road shared or separated path east side) – improve existing
4. Hutt Road (off-road shared or separated path west side)
5. Hutt Road (on-road protected cycle lanes)
6. Hutt Road (on-road unprotected cycle lanes)
7. Hutt Road (shared bus/ cycle lanes)
8. Railway Corridor

An assessment was undertaken against the five agreed investment objectives and Option 3 was selected as the option that best meets all five investment objectives as it will provide a high quality, direct cycle route, with good connections to nearby communities that provides for 'interested but

concerned cyclists' whilst still maintaining a high level of service for more confident cyclists. It provides a high quality environment for pedestrians and will reduce conflicts between these modes and between cyclists and vehicles, greatly improving crash rates. It will also improve the sustainability of Wellington and the health of its residents.

Recommended Option

In developing the recommended option, engagement with key stakeholders including Councillors, Cycle Advocacy Groups and Hutt Road landowners and leaseholders was undertaken. Formal public feedback was sought from 16 March through to 18 April 2016 and a total of 991 written submissions were received of which 67% were in general support of the proposals. 45 of these submitters chose to present their submissions at a public hearing.

Key concerns raised in submissions included:

- Safety issues with vehicles crossing cycle path haven't been adequately addressed
- Loss of parking impacts on local businesses
- Consideration of all potential route options

As a consequence of engagement and consultation, the Council is proposing a phased implementation approach.

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Part A – The Case for the Project

1. Introduction

The Wellington CBD - Ngauranga corridor is Wellington City's busiest cycle route with over 400 cyclists in the AM peak hour (Kaiwharawhara Road to Tinakori Road section)[1] and second busiest bus corridor[2]. The corridor connects the Wellington Central Business District (CBD) with the northern and some of the western suburbs, as well as the Hutt Valley (and forms part of the wider Wellington to Hutt Valley cycle and pedestrian route).

An off-road shared pedestrian and cycle path is provided along the eastern side of Hutt Road (as shown in Figure 1) between Ngauranga Gorge (the intersection of Hutt Road, Centennial Highway and Jarden Mile) and Tinakori Road, a distance of approximately 3.5 km. Along Thorndon Quay there are on-road marked cycle lanes and a clearway exists in the AM peak (7-9 am) for southbound cyclists (as shown in Figure 2).

There is also an alternative connection to/ from the CBD via Aotea Quays (as shown in Figure 3) although there are no dedicated cycle facilities provided along this route.

Figure 1 Hutt Road shared pedestrian and cycle path[3]

[1] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015
[2] The Golden Mile is the busiest
[3] Source: http://wellington.govt.nz/your-council/news/2016/05/green-light-for-capitals-northern-urban-cycleway

Figure 2 Thorndon Quay on-road marked cycle lanes[4]

Figure 3 Wellington CBD – Ngauranga, two CBD routes

[4] Source: https://can.org.nz/image/thorndon-quay?size=medium

Due to the differing facilities provided, delivery timeframes and decision making processes for the route alignments, the Wellington CBD - Ngauranga corridor is divided into two sections:

1. Hutt Road: Ngauranga - Hutt Road/ Aotea Quay intersection
2. Thorndon: Hutt Road/ Aotea Quay intersection – CBD (Bunny Street)

Over the years there have been various improvements along the corridor including speed reductions, clearways, pavement markings, painting of cycle lanes, an active warning sign and additional pedestrian crossings. Despite these improvements there is still a safety issue on the corridor that needs addressing, as the proportion of cycle crashes is significantly higher than local, regional and national averages[5].

A number of studies have been undertaken in recent years (as set out in detail in Section 8) which have looked at the best route alignment and type of cycleway facility that will address the safety issues and attract a greater number of users. Acknowledging that this corridor incorporates a range of transport modes including cycling, more recent studies looked at how best to provide a multi-modal solution (with a focus on sustainable modes) for the corridor.

The outcome of these studies was a proposal for the Hutt Road section (Section 1) of the corridor (as the first stage) that public feedback was sought on in March/ April 2016. The proposals (referred to as the Hutt Road cycleway) involve upgrading the shared path to a high quality separated cycle path and pedestrian footpath. The proposal involves the removal of a number of parking spaces currently located on the path, as well as other obstacles such as lamp posts, commercial signs and bus stops.

1.1 Business Case Approach

This combined Indicative and Detailed Business Case for the Wellington CBD to Ngauranga corridor presents the identification, assessment and recommendation of route and cycleway options, using a business case approach. It builds on the Strategic and Programme Business Cases developed in 2015 (as set out in Section 2).

The Indicative Business Case element involves the development of the long list of options and the identification of the issues associated with each option, to enable the selection of the preferred option (as set out in Sections 8 and 9). The Detailed Business Case element includes a more detailed analysis of the costs, risks and benefits to ensure that the preferred option provides the best feasible option. It will also identify the specific elements of the cycle network that are to be implemented including scope and procurement to support the evidence that it will deliver the outcomes identified in the strategic and programme business cases.

It is noted that the Hutt Rd section (Section 1) of the Indicative and Detailed Business Case is being progressed ahead of the Thorndon section (Section 2) and an updated report will be issued at a later time for Section 2.

[5] In 2013, the proportion of urban crashes involving cyclists on the Hutt Road and Thorndon Quay corridor was 60% compared to proportions between 10% and 20% for Wellington City, Wellington Region and across NZ – as shown in Figure 5 in Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015

1.2 Project Objectives

The Hutt Road cycleway is being proposed to make it safer and more convenient for people on bikes, bus[6], and foot to get around. In addition to providing a vital link in the regional cycling network between Wellington and Hutt Valley, the cycleway also provides a connection between the CBD and the northern and some of the western suburbs.

The purpose of the project is to provide sustainable transport solutions which improve safety and efficiency for the corridor, building upon earlier works. The project objectives are consistent and support those identified in the strategic and programme business cases.

The cycleway is part of the Council's investment in a safe and comprehensive cycle network to give people more transport choice, reduce congestion and emissions, and make Wellington a more attractive place to live, work and visit.

1.3 Project Purpose

The purpose of this combined Indicative and Detailed Business Case is to support the Council's request for funding from the Urban Cycleways Programme and National Land Transport Programme (NLTP) fund.

1.4 This report

This combined Indicative and Detailed Business Case:

- Outlines the context for the proposed investment
- Reconfirms the key problems identified in the strategic and programme business cases
- Develops the long list of options and identifies associated issues
- Presents the justifications for the preferred route and cycleway option
- Determines timeframes, potential benefit realisation returns, costs, risks and dis-benefits
- Confirms the strategic fit and indicative efficiency and benefit cost appraisal

[6] Bus priority improvements are planned later in the phased implementation approach, in advance of the implementation of the new Greater Wellington bus network in early 2018, when the Petone to Ngauranga cycleway improvements are consented and fully funded

2. Background

2.1 Introduction

In Wellington City, cycling accounts for 4.3 percent of journey to work trips (mode share)[7]. Wellington has experienced strong growth in cycling mode share for journey to work trips (73 percent over the period 2006 to 2013). This reflects a 1.8% change in overall mode share (from 2.5% in 2006 to 4.3% in 2013). While this is still less than Christchurch which has a 7 percent cycle mode share it is higher than other urban centres and indicates the potential for cycling uptake in the city.

Wellington City is growing and this will place additional pressure on the existing transport network in the form of increased modal conflict and congestion. To provide Wellingtonians with improved transport options and alleviate congestion on the transport network through mode shift, a comprehensive, safe cycle network is proposed in conjunction with associated promotional and safety initiatives.

Over recent years Wellington City Council (the Council) has committed funding for cycleway development through its Long Term Plan and Annual Plan processes. The investments aim to contribute towards cycling becoming “safer and more convenient” (Cycling Policy Nov 2008) by increasing the level of service for people who use bikes.

The development of the Wellington Cycle Network and introduction of the Urban Cycleways Programme led to the Wellington Cycleways Programme Master Plan and the Programme Business Case (as set out below). The result is the Council is currently progressing improvements in three main areas within the city with significantly increased levels of funding and reflects the commitment to developing a safer and more convenient cycle network.

In developing the Wellington CBD – Ngauranga cycleway, a number of other studies and projects that have an impact on or are impacted by this project have been considered including the Ngauranga to Airport programme, the Wellington Network Operating Framework, Wellington to Hutt Valley Cycle and Pedestrian Link and the Port Access Programme Business Case.

2.2 Wellington Cycling Strategies

2.2.1 Wellington Cycling Framework (2015)

In June 2015, the Council adopted the Cycling Framework 2015. The Cycling Framework includes a network plan and principles which set out decision-making thresholds for the delivery of each aspect of the network. The cycleway investment programme has also been approved by the Council and is included in the Long Term Plan 2015-25.

2.2.2 Wellington Cycle Network Programme Business Case (2015)

The Wellington Cycle Network Programme Business Case outlines the need for investment in cycling infrastructure, education and promotion to improve the current levels of cycling in a safe and efficient environment. Enhancements and additions to the cycling network are critical to improve the overall transport network for the city and will need to be supported by a thorough promotion and education programme to maximise the outcomes of the investment.

[7] 2013 Census data from Statistics NZ

The development of the Programme Business Case and the Master Plan involved consultation and workshops with eight Councillors and Officers from the Council as well as NZ Transport Agency representatives.

The Wellington Cycle Network will contribute directly to the government's land transport objectives in relation to economic growth and productivity, safety, environmental mitigation and the provision of transport choice. Cycling is a low-carbon emission, healthy and sustainable mode of transport, ideal for short to medium distance trips which will also increase the resilience of the city's transport network.

Investment in the proposed cycle network improvements and associated activities are aimed at:

- Providing a high Level of Service for people who bike within an integrated transport network
- Improving cycling infrastructure and facilities so that cycling makes a much greater contribution to network efficiency, effectiveness and resilience
- Ensuring cycling is a viable and attractive transport choice
- Reducing the crash rate, and the number and severity of crashes involving people on bikes
- Improving Wellington's sustainability, liveability and attractiveness

The Wellington Cycle Network is expected to be completed over the next two decades, possibly sooner if increased funding sources can be identified. The network will consist of primary, secondary and tertiary routes as well as shared road space and is likely to result in over 200 kilometres of network. This investment will also include education and other supporting infrastructure to encourage people of all ages and abilities to get on their bikes as a form of commuting and recreating.

2.2.3 Wellington Cycleways Programme Master Plan (Sep 2015)

The Wellington Cycleways Programme Master Plan[8] is a guide for the Council to deliver new cycling infrastructure that best meets the community's needs. It outlines the cycling infrastructure and safety and engagement activities that are proposed, with a focus on work to be done in the first three years. It also explains how the Council will prioritise the development of the cycle network, how it will connect key locations throughout the city, and how it will increase the number of people who choose to get around by bike.

The plan does not focus on cycle projects on their own; it covers solutions for multiple modes of transport, with an emphasis on improving transport choice and ease of access for all road users. The benefits for transport users also include improved journey times, a more efficient transport network, improved safety, and a more liveable city.

The Wellington Cycleways Programme Master Plan[9] was developed concurrently with the Programme Business Case to support the development of the programme options and to identify the scope, scale and type of interventions that could be developed into an investment programme. The Master Plan – the community facing document – will be progressively updated as the case for investment in cycling is developed through the indicative and detailed business case phases. The Master Plan was developed with representatives from the Council and the NZ

[8] Wellington City Council, Wellington Cycleways Programme Master Plan, September 2015
[9] Ibid

Transport Agency and was endorsed at the September 2015 Transport and Urban Development Committee meeting.

Through the development of the Master Plan and Programme Business Case, the cycle network was agreed to consist of a range of infrastructure, facilities and non-asset investments to improve participation in cycling and safety issues concerning cycling in Wellington. The cycling transport infrastructure would involve a range of solutions (i.e. protected lanes or shared paths outside the road corridor) as well as supporting facilities such as bike corrals within the CBD or other higher density areas.

Due to Wellington's topography and geographical structure six geographical and catchment areas (north, south, east, west, CBD and Wellington Hutt corridor) were identified and used as the basis for understanding the current and potential demand for cyclists. A need to develop a hierarchy of routes (primary, secondary and tertiary) was agreed with councillors and stakeholders with this occurring in the subsequent stages of the network's development.

2.3 Urban Cycleways Fund and Programme (2015-18)

The UCF provides $100 million additional funding for the Urban Cycleways Programme (UCP) across New Zealand. The funding aims to accelerate completion of urban cycle networks and achieve a step-change in cycling participation. Three packages were included in Wellington City's original UCP:

- Wellington CBD - Ngauranga (as part of the Wellington to Hutt Valley cycleway)
- Wellington CBD
- Wellington Eastern Suburbs

The UCP provisionally allocated $9.5 million to Wellington City for investment by 30 June 2018. When contributions from rates and the National Land Transport Fund (NLTF) are taken into account, some $35 million is available to be invested in cycling, with $9 million allocated to the CBD to Ngauranga package.

Two-thirds of the estimated $9 million cost for the Wellington CBD - Ngauranga corridor is being met by the Government under the Urban Cycleways Programme (through the UCF) and NLTF; the Council's share will be $3.12 million. The cost of the Hutt Road section is estimated to be $4-5 million.

2.4 Refreshed Wellington City Urban Cycleways Programme

A review of the Wellington City Urban Cycleways Programme (WUCP) was commissioned by the NZ Transport Agency, as part of its responsibility of managing and supporting the successful delivery of the UCP. Morrison Low Management Consultants undertook the review and made a series of recommendations to the NZ Transport Agency and the Council in May 2016.

Officers from Council and the NZ Transport Agency worked collaboratively to respond to the Morrison Low recommendations and the associated Transport and Urban Development (TUD) Committee resolutions[10] to develop a refreshed WUCP and engagement approach. Central considerations for the refreshed programme included:

- The need to keep overall delivery and costs realistic

[10] Made at the 19 May and 30 June 2016 TUD meetings

- The ability to implement pragmatic options in the short, medium and long term
- The recognition that an integrated and connected network needs to be created

The key changes from the previously agreed programme are:

- Reallocation of the UCP funding from the Wellington CBD package to the Eastern Suburbs package which includes improvements to Cobham Drive and to the Evans Bay to Waitangi Park corridor
- Extension to the timeframe for the delivery of the WUCP from June 2018 to June 2019

Councillors unanimously approved the refreshed WUCP and engagement approach at the TUD Committee meeting on 11 August 2016.

The refreshed WUCP programme is still to be approved by the Minister of Transport and this is planned for early 2017. The Council is in the process of delivering a number of milestones that are aimed at providing the NZ Transport Agency with confidence to recommend that the Minister approve the refreshed programme.

As shown in Table 1, the total value of the refreshed programme over four years from 2015/16 to 2018/19 is $37.5 million which retains the $9.5 million UCP allocation and includes funds allocated from the NLTF, both administered by the NZ Transport Agency.

Table 1 WUCP Refreshed Programme (to June 2019)

	Refreshed WUCP Programme Areas	**Total value**	**UCF**
1	Ngauranga to CBD	$9 million	$3 million
2	Central City/ CBD	$1.5 million	
3	Eastern Suburbs (Miramar and Kilbirnie)	$6 million	$6.5 million
4	Eastern Suburbs: Cobham Drive	$4 million	
5	Eastern Suburbs: Evans Bay to Waitangi Park	$7 million	
6	Southern Corridor	$6 million	
7	Other improvements (City-wide)	$4 million	
TOTAL		**$37.5 million**	**$9.5 million**

As shown in Table 1, the $9 million of funding allocated for the Wellington CBD - Ngauranga corridor is retained in the refreshed WUCP.

2.5 Wider Considerations

The Wellington region is seeing unprecedented progress on its transport network with projects such as Transmission Gully, the Kapiti Expressway and the Smart Motorway getting underway. Within Wellington City there are a number of projects being progressed that will shape how the transport network operates in the future, including those looking across all modes such as Let's

Get Wellington Moving (Ngauranga to Airport) programme and Wellington's Network Operating Framework and those looking more specifically at a specific mode including the Bus Rapid Transport project and the Wellington to Hutt Valley Cycle and Pedestrian Link.

These projects could have an impact on or be impacted by the Wellington CBD – Ngauranga cycleway and have accordingly been considered in the development of this project, as noted below.

2.5.1 Let's Get Wellington Moving (Ngauranga to Airport) programme

The corridor from Ngauranga Gorge to the Wellington Airport - encompassing the Wellington Urban Motorway (including the Wellington CBD – Ngauranga cycleway corridor) and connections to Wellington Hospital and eastern and southern suburbs - is the focus of the Let's Get Wellington Moving (Ngauranga to Airport (N2A) programme).

The Let's Get Wellington Moving programme is a joint initiative between the Council, Greater Wellington Regional Council and the NZ Transport Agency. The programme has come about in the wake of the Basin Bridge decision and the agencies involved are committed to taking a fresh look at Wellington's transport system to ensure it supports how the community wants their city to look, feel and function.

Projects like Bus Rapid Transit, widening Mt Victoria Tunnel and Ruahine Street and the widening of the Terrace Tunnel will be considered as an integrated part of the Let's Get Wellington Moving programme. A number of other key projects such as the upgrade of Kent/ Cambridge Terrace and the new cycle network through the central city and to the southern suburbs will inform/ be informed by the Let's Get Wellington Moving programme.

2.5.2 Wellington Network Operating Framework

The development of Wellington's Cycle Network, particularly in the central area, is currently being examined as part of the review and update of the Wellington Network Operating Framework (NOF). The NOF identifies routes and links throughout the network for varying levels of encouragement for cycling (as well as other modes of transport). This enables identification of potential conflicts in priority between modes to allow trade-offs to be made.

Competing road user needs is an ongoing issue in populated areas where trade-offs have to be made to balance demands around the network. A NOF outlines the aspirational operation of the network in terms of strategic objectives and associated relative priorities for each transport mode, identifying which user modes have priority where and when. The NOF process is collaborative and stakeholder engagement is critical to the process. It promotes thinking about 'networks' rather than routes or corridors and provides decision-makers with a better understanding of the trade-offs that are needed between transport modes within a network context. Existing performance is assessed to identify differences between how the network is operating and how stakeholders want it to operate.

In Wellington, priorities could be links for Bus Rapid Transit and cycleways. The NOF is a key opportunity to consider how road space and intersection priority is allocated (or assigned) to cycling alongside other modes.

2.5.3 Smart Motorway and other Planned Improvements

The first section of Smart Motorway between Johnsonville and the Terrace Tunnel (State Highway 1) in Wellington opened on 22 June 2016. Using variable speed limits, which are

adjusted in real time in response to changing traffic conditions, the Smart Motorway paces vehicles to smooth the traffic flow. The aim is for this to result in safer journeys with more predictable travel times.

The smart motorway is intended to free up nearby roads for better public transport trips and for pedestrians and cyclists. The Hutt Road and the cycleway could be directly and positively impacted, with fewer vehicles using it as a 'rat-run'.

As part of the project to ease Wellington's motorway congestion (which includes the smart motorway) the NZ Transport Agency has included plans to four-lane State Highway 1 southbound from the State Highway 1/ State Highway 2 merge to the Aotea Quay off-ramp. These plans are also expected to provide an alternative access to the port.

2.5.4 Wellington to Hutt Valley Cycle and Pedestrian Link

The Wellington CBD – Ngauranga cycleway forms part of the wider regional cycling network from Upper Hutt to Wellington.

There are currently approximately 400 cycle and pedestrian trips every day between Wellington and Hutt Valley along the State Highway 2 and Hutt Road corridor[11]. Users currently travel both within the shoulder which is narrow in places and within the existing path which only runs in the southbound direction. Due to the deficiency of current facilities the users are considered to be putting themselves and motorists at risk of incident.

The NZ Transport Agency is investigating options to deliver a safe and efficient route for cyclists between Ngauranga and Petone along State Highway 2 and a Detailed Business Case has been developed[12]. This project aims to close the gap of the existing cycleway along State Highway 2, support existing cyclists and encourage more people to travel by bike.

In October 2016, work commenced on upgrading the 600 metre section of cycle path that runs next to the SH2 off-ramp, including the Ngauranga underpass. The upgrade work includes widening and resurfacing the existing cycle path.

2.5.5 Great Harbour Way

The Great Harbour Way (GHW) concept was developed in collaboration with the Council, Hutt City Council and Greater Wellington and aims for a high quality, shared cycle and pedestrian facility around the coastline of Wellington harbour (as far as practicable) stretching from Pencarrow on the eastern harbour entrance around to Red Rocks in Owhiro Bay in the west. The plans includes the area that is the subject of this study, Wellington CBD – Ngauranga, and as set out in Section 8.2, a study[13] has been undertaken looking at options for and the feasibility of, an iconic harbour-side cycleway along this corridor. The study concluded that a facility along the harbour edge had a number of limitations and was not expected to gain financial assistance from the NZ Transport Agency.

As part of the refresh process (see Section 2.4), the joint Council/ NZTA team commissioned further work and updated its analysis of potential cycling corridors, including in response to the

[11] Numbers on the Hutt Road section of the corridor are higher with 400 cyclists in the AM peak hour due to those joining the route at Ngauranga, Onslow Road and Kaiwharawhara Road
[12] AECOM/ NZTA/ Wellington City Council/ Hutt City, Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case, Aug 2015
[13] Wellington City Council/ Opus, Wellington Cycleway Feasibility Study: Ngauranga to CBD Preliminary Funding Report, March 2013

specific TUD Committee resolutions relating to the GHW (from Ngauranga to the City) as set out in further detail in Section 10.1.2.

2.5.6 Port Access Programme Business Case

One option for the alignment of the Thorndon section of the Wellington CBD – Ngauranga cycleway is along Aotea Quay adjacent to Wellington's Port Area. This area is currently being looked at as part of the Wellington Port Access Programme Business Case[14].

The Wellington Port Access Strategic Case[15] sought to establish whether there was a robust case for future investment to improve journeys to and from the Wellington Port Area. The Port Area includes CentrePort, the ferry terminals, rail marshalling yard, and the surrounding local road and State Highway network. The Strategic Case was approved in 2015.

The problem statements identified via the Strategic Case process included:

1. Current network access for freight to and from the Port Area is constrained and inefficient resulting in economic loss due to delay
2. Future congested road and rail access has the potential to restrict the Port Area's ability to grow freight and passenger capacity
3. The Port Area is a key enabler to recovery after a High Impact Low Probability (HILP) event, but the network infrastructure to and from the Port is vulnerable to such an event, further risking the region's ability to recover

2.5.7 Ngauranga Gorge Cycleway Improvements

A series of improvements have recently been made to the link between the Wellington CBD – Ngauranga cycleway and the northern suburbs.

The project has been implemented by the Council and is aimed at making a safer and smoother journey for cyclists and pedestrians. The work includes improved signs, a length of new footpath, a new cycle lane, a diversion around the bus stop, and 'drop kerbs' allowing cyclists to move easily from traffic lanes to the path. At the bottom of the gorge, past the shops on Ngauranga Gorge Road, a separate footpath has been built to separate people on foot from fast-moving people on bikes.

These improvements follow installation of an advance warning sign at the Newlands southbound on-ramp last year to alert motorists to people approaching on bikes.

2.5.8 Ngauranga Gorge Intersection Improvements

The Council and the NZ Transport Agency are currently looking at improvements to the Ngauranga Gorge intersection (of Hutt Road, Centennial Highway and Jarden Mile). Investigations include:

- The effects of changes proposed to the intersection as part of the Ngauranga to Aotea Quay (Smart Motorway) project, in conjunction with ramp metering of the adjoining State Highway 2 northbound on-ramp
- Appropriate cycle and pedestrian facilities

[14] At an early stage in its development with no decisions made about proposed solutions
[15] NZ Transport Agency, Accessing Wellington's Port Area, 2014

- Efficiency improvements to the intersection

Possible changes being considered include:

- A segregated pedestrian/ cycle signalised crossings across the Hutt Rd approach
- A segregated pedestrian/ cycle signalised crossing across the State Highway 2 off-ramp left turn, operated on demand and independent of the signalised intersection
- A segregated crossing across the State Highway 2 off-ramp approach and State Highway 2 on-ramp exit. This includes coordination with the SH2 off-ramp left turn crossing, so users can cross directly from Hutt Rd to the SH2 on-ramp in one movement
- A 3 metre wide shared path alongside the State Highway 2 off-ramp approach
- A segregated pedestrian/ cycle signalised crossing across the Jarden Mile approach, including a cycle entrance to the traffic island from the Hutt Road approach and a zebra crossing across the Hutt Rd left turn
- Shared cycle and queue jump bus lanes on the Centennial Highway approach and exit (adjacent to the splitter islands only) and Hutt Rd approach between the bus stop and limit line
- An off-road cycle path on the Centennial Highway splitter island around the bus lane and connecting with the segregated crossing.
- The informal parking on the northwest side of Hutt Rd and the Hutt Rd cycle lane to State Highway 2 on-ramp can stay if the space is not needed, otherwise consider rationalising these facilities.

2.5.9 Bus Rapid Transit

Greater Wellington Regional Council, the Council and the NZ Transport Agency are working together on proposals for a new Bus Rapid Transit network from Wellington Railway Station to Newtown (Wellington Hospital) and Kilbirnie. An indicative business case has narrowed down two options for further investigation:

The first will see bus lanes at targeted locations along the core route, with buses given limited priority at intersections. It would carry a price tag of $58.8 million and would save 4½ minutes on the average journey. The second $127.2 million option would see buses given full priority at intersections and bus lanes along the whole route and would save 6½ minutes. This project is being considered as part of the Let's Get Wellington Moving programme.

2.5.10 Greater Wellington Regional Council, Future Bus Network

In addition to proposals for the Bus Rapid Transport network, Greater Wellington Regional Council (Greater Wellington) is making a range of additional improvements to provide affordable, reliable bus services that people want to use. These include:

- A new bus network for Wellington City so there are more services, more often for more people. 75% of Wellington City residents will be within 1 km of a high frequency bus route. The changes are based on public feedback. The new network should be up and running by January 2018.
- A new bus fleet to replace the retiring trolley buses and oldest diesels from mid-2017. Over 50% of the region's bus fleet needs to be replaced soon. Greater Wellington is exploring

higher capacity, environmentally sustainable options, considering their cost and environmental impact. New low emission diesel buses will come into service first, with the aim of moving towards a fully electric fleet

- Integrated Fares and Ticketing (IFT) so one smart ticket takes you anywhere on the Metlink network by bus train or ferry. IFT means faster, cashless, seamless travel. Greater Wellington is also reducing the number of different tickets and rewarding more people for frequent public transport use.
- New performance-based contracts that encourage bus operators to provide better service

It is understood the future network changes will not increase the number of buses along the corridor in the short to medium term, as patronage growth is intended to be accommodated through higher capacity (double-decker) buses[16]. In the longer term there could be an increase in the number of buses as 40% growth in public transport (trains and buses) passenger demand is expected from the northern suburbs in the next 30 years.

[16] Determined from Greater Wellington Regional Council data

3. Context

3.1 Introduction

This project is located within a very constrained corridor; there is very limited space between Wellington Harbour on the east and the steep hills to the west and Wellington's busiest transportation corridors are already located within this confined space.

The Hutt Road which forms part of this corridor currently provides the only route for those who wish to walk or bike between Ngauranga and Thorndon. This route already carries a high number of cyclists and this is set to increase in line with population growth and improvements planned to the route between Petone and Ngauranga, as set out below.

3.2 Geographic and Transport Context

The study area is located north of the Wellington CBD on the western side of the harbour between the Ngauranga Gorge intersection (of Hutt Road, Centennial Highway and Jarden Mile) and the CBD. The corridor connects the CBD with the Hutt Valley (via State Highway 2) as well as the northern and some of the western suburbs (via State Highway 1 and links such as Onslow, Kaiwharawhara and Tinakori Roads).

The Wellington Harbour is located on the east side of the corridor, to the west are steep hills and there is only very limited space in between. The busiest transportation corridors in Wellington are fitted within this already constrained study area:

- The Hutt Road as a four-lane major arterial road
- Four rail tracks including two for the Melling and Wairarapa (including Hutt Valley) Lines and two for the Johnsonville and Kapiti/ North Island Main Trunk Lines
- The Wellington Urban Motorway which includes the convergence of State Highways 1 and 2 with numerous overbridges and ramps
- Wellington Interisland ferry terminal

The Hutt Road is an important link in the transport network. It is a parallel route to the Wellington Urban Motorway, provides a direct connection to the city for the communities of Ngaio and Khandallah and provides an alternative connection for the northern suburbs such as Newlands, Johnsonville and Tawa as well as the cities north of Wellington in the Hutt Valley and Porirua. All bus transport from the northern suburbs uses the Hutt Road and all freight heading to and from the Interislander ferry terminal from the north must also use the Hutt Road, as there is currently no connection from the motorway. Equally there are no alternative routes for those who wish to walk or bike between Ngauranga and Thorndon, noting that cycling is not permitted on the motorway.

The Wellington Interisland Ferry terminal is located at the southern end of the study area. Industrial and retail land-use is located towards the southern part of Hutt Road close to the suburb of Kaiwharawhara. Residential areas are located on the hills above the corridor on the western side and are accessed from Kaiwharawhara and Onslow Roads. Wellington CBD located to the south of the study area is the busiest employment area in Wellington Region.

Therefore, except for movements to/ from Kaiwharawhara Road, most of the activity within the corridor is north-south between the CBD and suburbs such as Lower Hutt and Johnsonville

located to the north of the study area. The north and south movements in the study area have a reasonably flat profile, however the west and east movements in the study area have very sharp gradient changes due to the elevation on the western side of the corridor. The sharp gradients will affect cyclists' willingness to ride on the corridor.

Hutt Road

The Hutt Road section is adjoined on the eastern side with a variety of businesses which include retail and light commercial uses. Car parking for the businesses is located either at the back of buildings (accessed via driveways) or via parking which is located on the footpath adjacent to building frontages. A number of businesses such as Spotlight, BMW garage and the Early Years childcare centre have car parking available on the footpath in front of the building that is leased from the Council.

The speed limit on the Hutt Road section between north of Onslow Road and Ngauranga Gorge is 80 km per hour and has a two-way AADT of 20,000 vehicles per day. This section is considered to be a high speed environment. The section of Hutt Road between south of Onslow Road and Aotea Quay has a speed limit of 60 km per hour.

There is a clear tidal pattern of transport movement within the corridor. In the morning peak, travel demand is from residential areas to employment areas in a predominantly southbound direction. In the evening peak, the transport movements are in a reverse direction. The tidal transport movement leads to traffic congestion on both Hutt Road and SH1 during peak periods.

The lane widths provide limited shoulder space for cyclists riding on the road, however this varies depending upon the location.

The existing Hutt Road shared pedestrian and cycle path is located on the eastern side of Hutt Road between Ngauranga Gorge and just south of Aotea Quay. The width of the path varies at a number of places along its length from approximately 3 metres wide to over 5.5 metres wide. However, much of this greater width is not realised as approximately two metres is utilised for parking, as noted above and other obstacles as set out further in section 5.1.

Thorndon

To be prepared.

3.3 Population Growth

Wellington City's population is forecast to grow by 50,000 over the next 30 years, from 200,000 to approximately 250,000[17]. This will place additional pressure on the existing transport network in the form of increased modal conflict and congestion. To provide Wellingtonians with improved transport options and help alleviate congestion on the transport network through mode shift, a comprehensive, safe cycle network is proposed in conjunction with associated promotional and safety initiatives. The Cycleways Programme is part of a multi-modal Wellington transport network that aims to enable people to travel and access the CBD and key amenities easily and is a fundamental component of the Wellington Urban Growth Plan[18].

Areas of high population density are identified to be the Wellington CBD to the south of the study area and Johnsonville/ Hutt Valley to the north of the study area. Population growth is

[17] Wellington City Council, Wellington Cycleways Programme Master Plan, September 2015
[18] Wellington City Council, Wellington Urban Growth Plan: Urban Development and Transport Strategy - Implementation Plan, June 2015

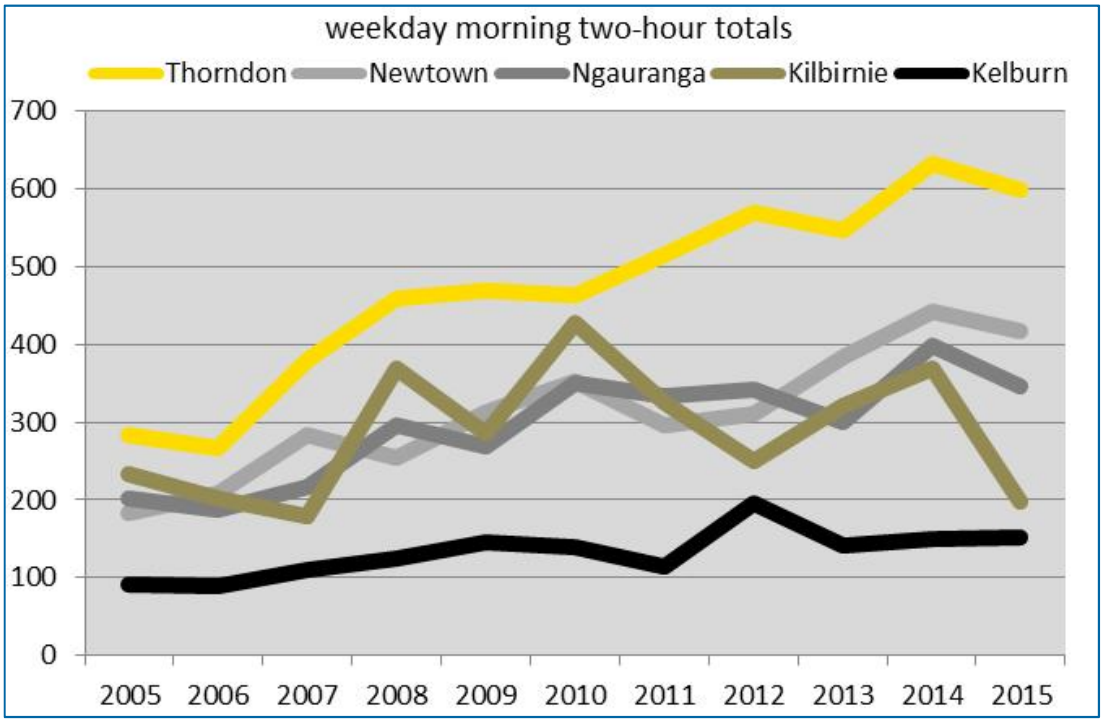
predicted in the same areas with population in the central city area, which grew by almost 100 percent between 2001 and 2013, expected to increase by approximately 84 percent – from 18,019 in 2013 to 33,150 in 2043.

The two main employment centres are located in Wellington CBD and the Hutt Valley; however expected employment growth is not as high as population growth. The results show that the study area is the key corridor for Wellington CBD work-related trips.

3.4 Cycling Demand

Cycling data collected via Annual Transport Monitoring Reports between 2005 and 2015 show that an increasing number of people on bikes are entering the city via –Ngauranga and Thorndon[19], as shown in Figure 4.

Figure 4 Wellington corridor volumes[20]



The Wellington Cycleway Feasibility Study: Ngauranga to CBD[21] considers the suburbs most likely to use the corridor and identifies the CBD, Ngaio, Johnsonville and Hutt Valley areas. It is expected that the proportion from each of these suburbs will be in line with current usage which

[19] Both counts taken on Hutt Road. Ngauranga count taken at Jarden Mile intersection and Thorndon count taken at Tinakori Road intersection. The reason the 2015 numbers are slightly lower than the 400 cyclists per hour recorded as part of the Hutt Road Sustainable Transport Study (2015) can be explained due to the methods used. The 400 cyclists per hour recorded on one day in February whereas the numbers in the Figure 4 were recorded over a one week period in March and then averaged.
[20] Wellington City Council, Annual Transport Monitoring Reports 2005-15.
[21] Wellington City Council/ Opus, Wellington Cycleway Feasibility Study: Ngauranga to CBD Preliminary Funding Report, March 2013

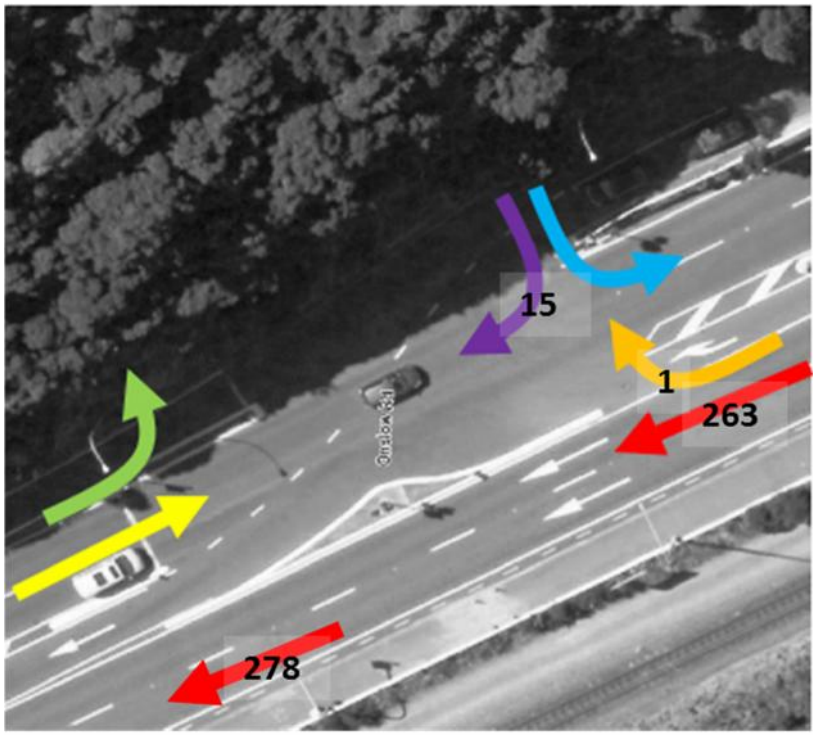
is 6% from Wellington CBD, 42% from Ngaio/ Khandallah, 23% from northern suburbs (including Johnsonville) and 29% from the Hutt Valley[22].

According to onsite observations and Council traffic monitoring surveys, the study area currently has a large proportion of experienced cyclists with a small proportion of basic competence cyclists. The main cyclists' trip type is considered to be commuter cycling during the weekdays and it is also used by sports and leisure users during the weekend.

Hutt Road

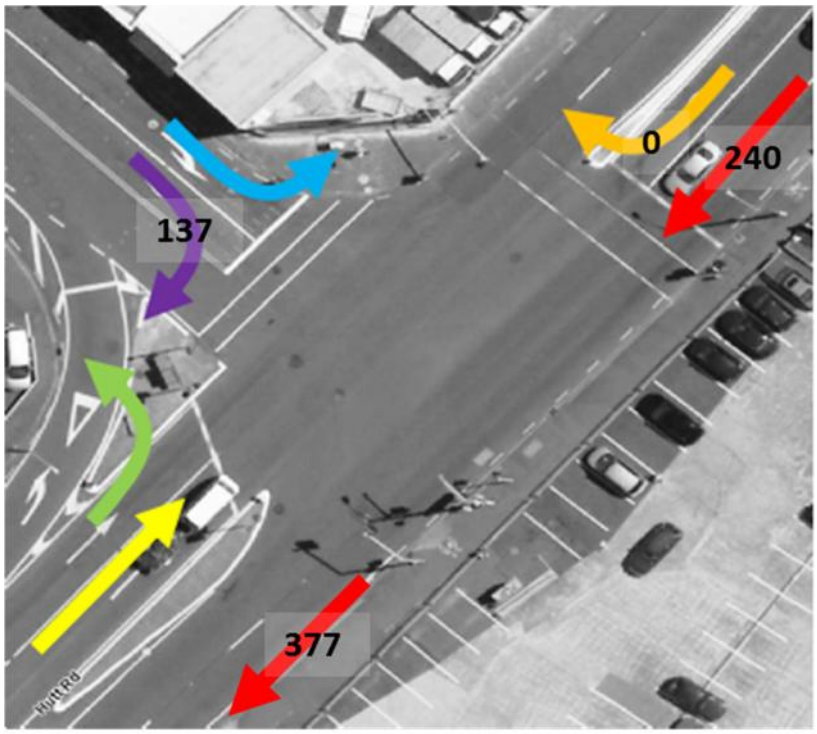
Cycling Demand Analysis was undertaken as part of the 'Hutt Road Sustainable Transport Study'[23]. This study found that demand on Hutt Road is consistently high in commuter peaks and low at other times. Demands increase from north to south as more catchments connect with the route, with the most significant change south of Kaiwharawhara Road, as shown in Figure 5.

Figure 5 Onslow Road Intersection Peak Hour Southbound Cycle Counts[24]



[22] Wellington City Council, Annual Transport Monitoring Report, 2015
[23] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015
[24] Cycle Counts undertaken as part of Sustainable Transport Study

Figure 6 Kaiwharawhara Road Intersection Peak Hour Southbound Cycle Counts



As shown in Figure 5 and Figure 6, approximately 60% of southbound cyclists are coming from the northern suburbs and the Hutt Valley and 40% from Ngaio and Khandallah (4% via Onslow Road and 36% via Kaiwharawhara Road). These results are in line with the Council's Annual Monitoring Survey results noted earlier. It is interesting to note that there are 38 less cyclists at Kaiwharawhara Road than at Onslow Road, indicating that these cyclists stopped off at one of the commercial premises along this section.

The Hutt Road Sustainable Transport Study found that the proportion of cyclists on the existing shared path is relatively consistent in the AM peak with 93-95% of southbound cyclists and 39-41% of northbound cyclists (28 northbound peak hour cyclists were recorded) using the path. In the PM peak the numbers reverse adjacent to Kaiwharawhara Road with 54% of southbound and 66% of northbound cyclists using the path, increasing to 84% of southbound and 76% of northbound north of Kaiwharawhara Road, due to more capacity on the path and higher traffic speeds.

The study also examined forecast demand and found that commuter cyclist use of Hutt Road (counted at Ngauranga Gorge) has increased at an average per annum rate of 8.3% (from 2005-14[25]). Demand forecasts have also been examined in the 'Wellington to Hutt Valley Cycle Route'[26] report which predicts an additional 280 cyclists in year one (2020) with an average growth rate of 6.45% for the following years. This would see the peak hour cyclists on the Kaiwharawhara Road to Tinakori Road section increase from 400 in 2015 to 1470 in 2031.

[25] Wellington City Council, Annual Transport Monitoring Reports 2005-14
[26] AECOM/ NZTA/ Wellington City Council/ Hutt City, Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case, Aug 2015

Thorndon

To be prepared.

3.4.1 Walking

Hutt Road

Pedestrian Demand Analysis was undertaken as part of the 'Hutt Road Sustainable Transport Study'[27]. This study found that there is low demand on Hutt Road north of Kaiwharawhara Road (33 pedestrians[28]) and demand increases by around 200% south of Kaiwharawhara Road (96 pedestrians[29]).

The study also examined forecast demand and found that growth in pedestrian numbers north of Tinakori Road is forecast to be relatively low over the next 15 years as there is little opportunity for residential intensification in this area.

The Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case[30] highlights the importance of a walking (and cycling) route along this corridor from a resilience perspective. The report notes that the provision of a safe and dedicated facility for cyclists and pedestrians along the corridor (including the Thorndon Quay and Hutt Road sections) could reduce congestion along State Highway 2 following a major earthquake or other unplanned natural event and provide an alternative mode out of the city.

Thorndon

To be prepared.

3.4.2 Public Transport

Hutt Road

Public transport was examined as part of the 'Hutt Road Sustainable Transport Study'[31]. This study found that buses on the Hutt Road/ Thorndon Quay corridor (43, 44, 45, 46, 52, 53, 54, 55, 56, 57, 58, 83, 211, 466, N22, N5, N6, N66, N88) predominantly serve the northern suburbs (Johnsonville, Churton Park, Grenada) and the suburbs that border the western side of the route (Ngaio and Khandallah). There are also buses that serve Porirua and Eastbourne that use this route.

The Thorndon Quay/ Hutt Road route is the region's busiest patronage corridor (excluding the Golden Mile – Lambton Quay - Courtenay Place) with approximately 2500 passengers in the two-hour 2013 AM peak.

The study found that in the AM peak hour there are 46 buses travelling southbound south of Kaiwharawhara Road and 16 buses travelling northbound. In the PM peak hour there are 16 buses travelling southbound south of Kaiwharawhara Road and 31 buses travelling northbound.

An analysis of bus journey times undertaken as part of the study has determined that there are delays around the Kaiwharawhara Road intersection. In the AM peak, there are delays of around one minute for northbound buses travelling both through and left into Kaiwharawhara

[27] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015
[28] Two-way peak hour pedestrian link demands (2015 count data)
[29] Ibid
[30] AECOM/ NZTA/ Wellington City Council/ Hutt City, Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case, Aug 2015
[31] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015

Road and for southbound buses turning right out of Kaiwharawhara Road. For southbound buses travelling through the Kaiwharawhara Road intersection the peak hour delay is around two and a half minutes. The average speed in the AM peak period for southbound buses is around 15 km/h slower than average speeds throughout the rest of the day[32].

The study examines forecast demand and notes that Greater Wellington forecasts predict annual patronage growth of 1.7% between 2011 and 2031. This would see the approximately 2500 passengers in the two hour 2013 AM peak increase to 3250 passengers (an increase of approximately 30%), which is likely to mean that the numbers of buses (or the capacity of buses) using this corridor will increase over time.

Thorndon

To be prepared.

[32] The study found that general traffic experiences similar delays at the Kaiwharawhara Road intersection (using a different data source) and that the Kaiwharawhara Road intersection performs poorly for southbound AM peak movement and all turns out and right turns into Kaiwharawhara Road are at capacity with average to poor performance.

4. Partners and Key Stakeholders

4.1 Investment Partners

The delivery of the Wellington CBD to Ngauranga cycleway is a collaborative exercise between the Council and the NZ Transport Agency with support from Greater Wellington and Hutt City Council.

4.1.1 Wellington City Council

The Council is the Road Controlling Authority for the majority of the roads forming the cycling network and has responsibility for planning, operations, management and maintenance of these roads. The Council is also responsible for land-use planning in Wellington City. It prepares and updates various area plans, to give effect to the relevant strategic directions for transport planning for the city.

The Council is the lead agency progressing proposals for the Wellington CBD – Ngauranga cycleway.

4.1.2 New Zealand Transport Agency

The NZ Transport Agency is the crown entity responsible for planning and investing in land transport networks, managing the state highway network and providing access to, and use of, the land transport system.

In addition to having responsibility for the allocation of funding under the National Land Transport Programme (NLTP), the NZ Transport Agency also administers Government investment in cycling via the Urban Cycleways Programme, which the Wellington CBD – Ngauranga cycleway is one of three packages in Wellington (see Section 2.3). Further to this, the NZ Transport Agency is the lead agency progressing the Wellington to Hutt Valley Cycle and Pedestrian Link (which the Wellington CBD – Ngauranga cycleway forms a key part of). Accordingly, there has been close liaison with the NZ Transport Agency, particularly the Planning and Investment – Central and the National Cycling teams.

4.1.3 Greater Wellington Regional Council

Greater Wellington Regional Council (Greater Wellington) is the organisation primarily responsible for overall regional planning and Public Transport planning. Greater Wellington is also responsible for the Public Transport network and delivering Public Transport services across Wellington. It undertakes asset management, planning, including for new works, manages the operation of the network, is responsible for arranging funding and contracts for service delivery.

4.1.4 Hutt City Council

Hutt City Council's boundary with Wellington City is around the Petone on and off-ramps on State Highway 2 and Hutt City Council is a key stakeholder in the Wellington to Hutt Valley Cycle and Pedestrian Link.

4.2 Alignment to Strategies and Organisational Goals

A detailed examination of how investment in the Wellington Cycling Network is aligned to key policy documents such as the Government Policy Statement and the Wellington Regional Land Transport Plan (2015) is set out in the Programme Business Case report[33] or noted in Section 2.2 (Wellington City's relevant policy documents). One area not previously discussed are plans for bus lanes along Hutt Road, as set out in Greater Wellington's Regional Land Transport Plan (noted below).

4.2.1 Wellington Regional Land Transport Plan (2015)

The Wellington Regional Land Transport Plan states some of the existing general traffic lanes on Hutt Road between Ngauranga and Thorndon will be reallocated for bus lanes to support faster and more reliable bus journey times from the north. At the same time improved peak capacity will be provided on SH1 between Ngauranga and Aotea Quay through active traffic management measures and increased capacity.

An assessment was undertaken as part of the Hutt Road Sustainable Transport Study[34] using industry guidance for bus lane or high occupancy vehicle lane provision. The assessment determined that there is potential for bus lanes based on peak hour bus and passenger volumes and other relevant assessment criteria, however there is limited potential to reallocate space on Hutt Road for peak hour bus lanes without major Level of Service impacts on traffic. The assessment determined that a T2 High Occupancy Vehicle lane was feasible and peak hour directional T2 lanes were proposed along Hutt Road.

4.3 Community and Key Stakeholders

The Wellington public have demonstrated a strong interest in cycling at both a strategic and local level and the engagement of the community and other key stakeholders is set out in Section 9.3 of this report.

[33] Wellington City Council/ GHD, Cycle Network Development Programme Business Case, Feb 2016
[34] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015

Part B – The Issues to be Resolved

This section sets out the case for investment in the Wellington CBD – Ngauranga cycleway. It considers the nature of the problems, the benefits of investing in the cycleway and the merits of investing now.

The problem statements identified in the Programme Business Case are re-examined and issues specific to the Wellington CBD - Ngauranga cycleway are highlighted. This section also includes other relevant Programme Business Case information such as the Investment Objectives and related KPIs.

5. Defining and Assessing the Scale of the Problem

5.1 Defining the Problem

5.1.1 Cycling in Wellington City - Wider Issues

As part of the development of the Wellington City Cycle Network Strategic Case[35] three problems (and relative importance weightings) relating to cycling in Wellington City were identified[36]. These three problems were confirmed during the development of the Programme Business Case and the evidence supporting them is set out in detail in the Programme Business Case report[37].

1. Poor Cycling Perception - Poor cycling uptake, due to the perception that cycling is unsafe and inconvenient, is reducing cycling's contribution to the transport system (45%)

   Greater Wellington's Transport Perceptions Survey 2012[38] found that only 20 percent of respondents felt that it was safe to cycle in Wellington City (compared to 73 percent for walking). As noted in Section 2.1, Wellington City's mode share of 4.3 percent of journey to work trips is low relative to other urban centres such as Christchurch which has a 7.0 percent cycle mode share[39].

2. Unappealing Environment - An unappealing environment for people on bikes is reducing transport and recreation choices for Wellingtonians (40%)

   A survey undertaken for the Council[40] found that 76 percent of respondents would consider cycling if safe, separated infrastructure was provided. The lack of safe cycle

[35] Wellington City Council, Wellington City Cycle Network Strategic Case, August 2015
[36] The problems were identified at a facilitated Investment Logic Mapping workshop in March 2015 which involved representatives from Wellington City Council, NZ Transport Agency, Cycle Aware Wellington, the Automobile Association and Wellington Employers' Chamber of Commerce
[37] Wellington City Council/ GHD, Cycle Network Development Programme Business Case, Feb 2016
[38] Greater Wellington Regional Council, Transport Perceptions Survey 2012, 2012
[39] 2013 Census data from Statistics NZ
[40] Wellington City Council, Cycling Demand Analysis, 2014

infrastructure coupled with concern about driver behaviour was found to be the chief barriers to cycling in Wellington.

3. High Crash Risk - Unforgiving infrastructure and poor road user behaviour is resulting in significantly higher than average rates of harm to people on bikes (15%)

   The NZ Transport Agency's Crash Analysis System (CAS) data for 2014 shows 69 reported[41] crashes involving cyclists in Wellington City, resulting in one fatality, nine serious and 59 minor injuries. This number has approximately doubled since 2000.

   The NZ Transport Agency's Communities at Risk Register (2014) identifies Wellington City as having the third highest personal risk for cyclists (after Auckland Central and Christchurch City). Greater Wellington's Regional Land Transport Plan 2015[42] notes that cyclists in the Wellington region have a greater than average risk of being killed or seriously injured whilst cycling.

5.1.2 Wellington CBD - Ngauranga Cycleway - Specific Problems -

The specific problems along the Wellington CBD - Ngauranga cycleway have been identified in a number of reports[43]. A summary of these is provided in Table 2 and illustrated in Figure 7.

Table 2 Key Problems by Section

Key Problems	Details
Section 1 - Hutt Road (Ngauranga - Hutt Road/ Aotea Quay intersection)[44]	
Conflict with turning and parked vehicles (problems 2 and 3)	Conflict is caused by: – Customer, employee and commuter parking spaces on shared pedestrian/ cycle path in front of retail units (in some cases on land leased from the Council) – Driveways on shared pedestrian/ cycle path to access on-site parking – Vehicles parking on shared pedestrian/ cycle path – Lack of visibility of cyclists on shared pedestrian/ cycle path, e.g. buildings and parked vehicles block sight lines from driveways – Poor signage to raise drivers awareness of cyclists on path
Obstacles (problem 2)	Obstacles such as commercial signs, bus stops and lamp posts block the path and create pinch points
Inadequate and inconsistent width (problem 2)	The width of path available for cyclists and pedestrians is inconsistent along its length and restricted because of the obstacles and car parking on the path (as set out in Section 3.2) and will not provide for the cycling demand forecasts noted in Section 3.4.
Poor surface (problem 2)	The surface is uneven – changes in elevation between footpaths, vehicle crossings and side roads
Section 2 – Thorndon (Thorndon Quay route)	

[41] It should be noted that many minor crashes involving cyclists do not get reported and CAS data only includes crashes where a motor vehicle is involved
[42] Greater Wellington Regional Council, Wellington Regional Land Transport Plan 2015, 2015
[43] AECOM/ NZTA/ Wellington City Council/ Hutt City, Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case, Aug 2015. Wellington City Council/ Opus, Wellington Cycleway Feasibility Study: Ngauranga to CBD Preliminary Funding Report, March 2013. Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015. Wellington City Council/ Opus, Thorndon Quay Sustainable Transport Study, December 2015 and Wellington City Council, Proposed Traffic Resolution for Hutt Road, 07.03.16
[44] The Onslow Road to Ngauranga Gorge section is considered to be a good quality shared path of sufficient width with fewer pedestrians

Conflict with parked or parking vehicles (problems 2 and 3)	Conflict to southbound cyclists is caused by vehicles entering and exiting angle parking spaces along Thorndon Quay
Section 2 – Thorndon (Aotea Quay route)	
To be assessed	

As noted in Table 2, there is ongoing conflict between vulnerable road users and vehicles travelling over the shared pedestrian and cyclist path to access car parking (located either at the back or front of buildings, or on the shared path itself) due to the land uses along Hutt Road. This is evident in Figure 7 which shows the existing shared path (at the entrance to the Spotlight car park) with conflicts posed by driveways and vehicles parking adjacent to building frontages and on the shared path, as well as obstacles such as lamp posts.

Figure 7 Conflicts and Obstacles on Hutt Road Shared Path

The implications of this conflict is a high number of cyclist crashes along the corridor, that is significantly higher than local, regional and national averages and results in this being one of Wellington's worst performing routes for cyclists, as set out in detail below.

Hutt Road and Thorndon Quay Crash History

A report identifying and assessing the crash history along the Hutt Road and Thorndon Quay corridor is included in the Hutt Road Sustainable Transport Study[45] and Thorndon Quay Sustainable Transport Study[46]. The report notes that there have been 26 reported crashes involving a bike from 2009-2013, resulting in one serious injury crash, 17 minor injury crashes and eight non-injury crashes.

Over half (15 of 26, 58%) of the reported cycle crashes occurred on the shared path and the majority of these (11 of 15, 73%) involved northbound cyclists (considered to be due to drivers not expecting cyclists travelling north against the traffic).

The report noted the following as key design considerations for Hutt Road:

- Visibility to cyclists in both directions on the shared path from vehicles leaving properties and turning left or right onto Hutt Road is the most significant issue, as this is the cause of 67% (10 of 15) of cyclist crashes on the shared path
- Visibility to cyclists in both directions on the shared path from vehicles entering properties from Hutt Road will become more important if kerbside parking is provided, as vehicles turning in make up 20% (3 of 15) of the crashes on the shared path

The report noted the following as a key design consideration for Thorndon Quay:

- Interactions with parked or parking cars is the key cause of cycle crashes on Thorndon Quay[47]

5.1.3 Buses – Specific Problems

An analysis of journey times undertaken as part of the Hutt Road Sustainable Transport Study[48] determined that there are delays around the Kaiwharawhara Road intersection in the AM peak. For southbound buses travelling through the Kaiwharawhara Road intersection, the peak hour delay can be up to two and a half minutes. The average speed in the AM peak period for southbound buses is around 15 km/h slower than average speeds throughout the rest of the day. For buses turning right out of Kaiwharawhara Road, there are delays of around one minute.

Northbound buses have relatively constant speeds though there are noticeable slow points around the Kaiwharawhara Road and Jarden Mile intersections.

[45] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015
[46] Wellington City Council/ Opus, Thorndon Quay Sustainable Transport Study, December 2015
[47] Though it was noted the clearway has reduced the number of minor injury crashes in the AM peak
[48] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015

6. Issues, Constraints, Opportunities

Issues are uncertainties that the study may not be able to resolve but must work in the context of, including studies that have an effect on the project. Constraints represent the bounds within which the study is being undertaken, such as legislation, funding, and environmental considerations.

6.1 Issues

As set out in Section 2, there are a number of projects underway that will shape how Wellington City's transport network operates in the future, including projects looking across all modes such as Let's Get Wellington Moving and Wellington's Network Operating Framework. There are also projects assessing specific modes including the Bus Rapid Transport project and the Wellington to Hutt Valley Cycle and Pedestrian Link. While this provides some uncertainties about the wider transport network it also provides a number of opportunities, particularly by being one of the first projects to be progressed and implemented, as explained further in section 6.3.

As will be explored further in Section 9.5, a phased approach is being proposed with trigger points that tie in directly with projects such as the Wellington to Hutt Valley Cycle and Pedestrian Link and the south bound motorway lane capacity and alternative port access from the motorway.

6.2 Constraints

Constraints that impact on the Wellington CBD - Ngauranga Cycleway include:

1. The timeframes for Urban Cycleways Programme funding is relatively fast, especially with the outcomes of strategic projects such as Let's Get Wellington Moving (Ngauranga to Airport) not expected until 2017 or beyond.
2. As noted in Section 3, this project is located within a very constrained corridor; there is limited space between Wellington Harbour on the east and the steep hills to the west and Wellington's busiest transportation corridors are already located within this confined space. This particularly impacts the Hutt Road cycleway project, as there are few feasible route alignment options available, as will be explored further in Section 8.
3. The project requires political support to implement improvements and with the local elections on 8 October 2016 and public interest in the recently implemented Island Bay cycleway, there has been a high level of political and public commentary on this project and cycling in general.

6.3 Opportunities

As noted above, the other projects currently being progressed provide a number of opportunities for this project, for example within Wellington's Network Operating Framework, the need to provide for cycling as a priority within the Hutt Road corridor has already been noted. NZ Transport Agency proposals to four-lane State Highway 1 southbound adjacent to the corridor and provide an alternative access to the port will provide opportunities for fewer heavy vehicles to use Hutt Road (currently the only option to access the port).

The Urban Cycleways Programme funding (set out in section 2.3) provides an important opportunity to accelerate completion of urban cycle networks such as the Wellington CBD – Ngauranga cycleway and deliver a step-change in cycling participation. The timeframes associated with this funding are a constraint (as noted above) that the project must be delivered within.

The project provides opportunities for health benefits for those who start walking and cycling along the corridor, including those who work along the corridor and previously drove to work.

6.4 Consenting impacts and assessments

The following approvals and consents are required for the Hutt Road cycleway:

- Council approval of Traffic Resolutions to establish restrictions to parking and lane use
- Council approval of Traffic Resolutions to establish bus shelters
- Resource and Building Consents for the Kaiwharawhara Bridge widening

Further details of these approvals and consents are set out in Parts C and D of this report.

6.5 Risks

Hutt Road

A risk assessment was undertaken for the Hutt Road Cycleway which identified a number potential risks. The high level risks were primarily associated with opposition to the proposals, particularly around:

- Community opposition to the proposed parking removal plans
- T2 lanes cause traffic delays
- Issues associated with Island Bay community engagement “spilling over” to this project
- Political consensus

Mitigation measures were focused on explaining why proposed measures were being proposed, including via the new website http://cycleways.wellington.govt.nz/ and undertaking meaningful communications and engagement activities.

7. The Benefits of Investment

The benefits and investment objectives identified during the development of the Wellington Cycle Network Strategic and Programme Business Case have been included below. From these, project specific objectives and benefits have been developed.

7.1 Strategic Case Benefits

In developing the Strategic Case, the following benefits from investment in cycling infrastructure were identified:

1. Greater transport network efficiency, effectiveness and resilience
2. Wellington is a more sustainable, liveable and attractive city
3. Improved safety for people on bikes

As part of the Programme Business Case process, the three benefits were linked to a set of desired outcomes and investment objectives, which are discussed further below.

All three benefits are linked to increased cycle participation and achieving greater mode share for travel by bike. This has wider transport benefits for Wellington city including:

- Reduced levels of congestion along main urban routes during peak periods, with subsequent improvements in trip reliability for public transport, freight and general traffic;
- Greater (and affordable) transport choices for road users undertaking short to medium distance trips in the city, including better access to employment, shops, education and other facilities;
- Reduced motor vehicle emissions and improved health and fitness associated with a higher uptake in active modes;
- Helping cater for future growth by maximising the use and capacity of road corridors; and
- Improved cyclist safety by impacting driver attitudes and behaviour through increased expectation and awareness of cyclists.

7.2 Programme Business Case Investment Objectives

During the development of the Programme Business Case, investment objectives were discussed and agreed, as outlined in Table 3, with the expectation that these would be further developed through the Indicative Business Cases for each package. For the Wellington CBD to Ngauranga Cycleway, these will be confirmed in conjunction with other partners along the Wellington to Hutt Valley corridor, particularly as the Ngauranga to Petone section will be the main driver of benefits.

Table 3 Investment Objectives Summary

Investment Objective	Draft KPIs and Measures
Achieve a high Level of Service for cyclists within an integrated transport network	Increased customer satisfaction with Level of Service, across a diverse range of ages and abilities % of the network (catchment areas) that is completed to target Level of Service
Improve cycling infrastructure and facilities so that cycling makes a much greater contribution to network efficiency, effectiveness and resilience	Increased contribution to network (journey time) reliability and efficiency Reduced Vehicle Operating Costs Overall economic benefit
Cycling is a viable and attractive transport choice	Increased cycling as a transport mode (Mode Share from 4.3% in 2014 to X%[49] in 2024) Localised trip movements, across a diverse range of ages and abilities School trips (school travel survey)
The crash rate, number and severity of crashes involving people on bikes is reduced	Reduced actual deaths, serious injury and crashes Crash rate per km reduced from X to Y[50] (regional statistic) Improved perception of cycling safety (level of service perception survey)
Provide transport choices by increasing the opportunity for people to ride bikes so as to improve the sustainability, liveability and attractiveness of Wellington.	Greater health (Health benefits) Improved wellbeing (Quality of life) Increased visitor satisfaction Reduced CO_2 emissions

7.2.1 Benefits Map

The Benefits Map is provided in Appendix A and shows the integration between the Identified Benefits and the Investment Objectives. Together with the KPIs and performance measures, these will help monitor progress towards the agreed outcomes and objectives set out by Wellington City. The benefits map will be updated concurrently with the development of the Indicative Business Case. This will confirm the KPIs, measurable targets, monitoring tools, and base line measures.

7.2.2 Hutt Road Cycleway - Project Aims and Outcomes

The Hutt Road cycleway is being proposed to make it safer and more convenient for people on bikes, bus, and foot to get around. In addition to providing a vital link in the regional cycling

[49] TBC
[50] Ibid

network between Wellington and Hutt Valley, the cycleway also provides a connection between the CBD and the northern and some of the western suburbs.

The purpose of the project is to provide sustainable transport solutions which improve safety and efficiency for the corridor, building upon earlier works.

The cycleway is part of the Council's investment in a safe and comprehensive cycle network to give people more transport choice, reduce congestion and emissions, and make Wellington a more attractive place to live, work and visit.

Together with the Ngauranga to Petone section, the provision of improved walking and cycling facilities will unlock existing suppressed demand for walking and cycling between Wellington and Hutt Valley. Providing a fully segregated shared path that is safe and efficient will help to change perception about the safety risk of walking and cycling, as well as incident risk.

A safe and efficient cyclist and pedestrian link between Wellington and Hutt Valley will reduce congestion along State Highway 2, as more people choose to cycle (or walk) rather than drive.

7.2.3 Hutt Road Cycleway - Project Benefits

The specific benefits that are expected to be delivered by the Wellington CBD – Ngauranga cycleway include:

- Reduced cyclist crash rate
- Increased numbers of cyclists and pedestrians along corridor
- Increased and consistent width
- Reduced conflict between pedestrians and cyclists
- Improved quality path
- Improved safety through greater driver awareness

Part C – The Indicative Business Case

This section of the report sets out the reasons behind and process undertaken for the proposed cycleway through the Wellington CBD – Ngauranga corridor and the type of facility to be provided (it is noted that the proposed route for the Thorndon section (Hutt Rd/ Aotea Quay intersection – CBD) is still to be decided and will be included in an updated version of this Indicative and Detailed Business Case).

Information is included on the engagement and consultation undertaken, including a summary of key submission points and an explanation of the aspects of the proposal that have been adjusted as a consequence of engagement and consultation. The proposed approach to community and stakeholder engagement for the Thorndon section is also included.

8. Cycle Route and Facility Assessment

8.1 Introduction

The long list of options for the Wellington CBD - Ngauranga corridor were developed from previous studies which have looked at both the most viable route option and type of cycleway facility. Details are provided of the objectives of each study, the options assessed (including both the route and the type of facility), the associated consultation undertaken and the findings or conclusions reached. It is noted that the there are some differences in the sections of the corridor examined in these studies compared to the two sections set out in this business case (as highlighted in the 'route differences' column in Table 4).

Each option was assessed against criteria developed from the project objectives set within each study. These had a number of similarities, as follows:

- Improve the safety of cyclists (actual and perceived safety)
- Attract new cyclists
- Improve connectivity to the network
- Implementation costs represent good value for money

The previous studies and options are summarised in Table 4.

Table 4 Cycle Route/ Facilities Selection – Previous Studies Summaries

Report	Route differences	Route/ facility options identified
Section 1: Hutt Road – between Ngauranga and Hutt Road/ Aotea Quay intersection		
Wellington Cycleway Feasibility Study: Ngauranga to CBD (2013)	None	1. Harbour-side 2. Hutt Road (upgrade existing path) or on-road facilities
Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case (Aug 2015)	Ngauranga Gorge to Onslow Road intersection (Section 2) and Onslow Road intersection to Tinakori Road intersection (Section 1)	Hutt Road
Hutt Road Sustainable Transport Study (Dec 2015)	None	Hutt Road (off-road and on-road facilities) Off-road shared path on west side
Wellington City Council Analysis	None	Railway Corridor (KiwiRail land behind retail units)
Section 2 : Thorndon – between Hutt Road/ Aotea Quay and CBD (Bunny Street)		
Wellington Cycleway Feasibility Study: Ngauranga to CBD (2013)	None	Aotea Quay - Section 1 options based on continuation of route via proposed Great Harbour Way route along eastern side of Aotea Quay
Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case (Aug 2015	As noted above, Onslow Road intersection to Tinakori Road intersection (Section 1)	Thorndon Quay
Thorndon Quay Sustainable Transport Study (Dec 2015)	Hutt Road/ Aotea Quay to Mulgrave Street	Thorndon Quay (off-road and on-road facilities) Off-road shared path on both east and west sides
Wellington City Council Analysis	None	1. Aotea Quay 2. Rail Corridor 3. Thorndon Quay

8.2 Wellington Cycleway Feasibility Study: Ngauranga to CBD Preliminary Funding Report (2013)

8.2.1 Study Objectives

The aim of the Wellington Cycleway Feasibility Study: Ngauranga to CBD[51] was to identify and assess the most viable cycleway facility and route option between Ngauranga Gorge and Wellington CBD (to the northern end of Aotea Quay).

Key objectives to be delivered by the proposal (and meet funding criteria) was a route that:

- Provided an option for travelling to work in large urban congested cities
- Attracted new commuter cyclists
- Improved the safety of existing cyclists

8.2.2 Cycle Route and Facility Options

The cycleway options considered for the Ngauranga to CBD route focused on implementing two types of facilities due to the potential routes available and the traffic context; on-road cycle facility and off-road cycle path.

Two route options were identified and developed for further consideration and assessment (as shown in Figure 8):

1. **Option 1: The Harbour Options** - an off-road shared pedestrian and cycle path that follows the coastline on the eastern side of the railways line from the State Highway 2 Ngauranga off-ramp to the east side of Aotea Quay south of Hutt Road, with connection options (and delivers the vision for the Great Harbour Way)
2. **Option 2: The Hutt Road Improvement Options** – an upgrade of the existing pedestrian and cycle shared path on the east side of Hutt Road or the provision of on-road facilities, as follows:

   2a Widen on-road cycle lanes/ shoulders

   2b On-road 1.5 m cycle lanes

   2c On-road shared bus/ cycle lanes

   2d Upgrade existing two-way cycle path on footpath on east side[52]

   2e Improve existing shared path

[51] Wellington City Council/ Opus, Wellington Cycleway Feasibility Study: Ngauranga to CBD Preliminary Funding Report, March 2013
[52] A cycle path on the west side was discounted due to the existing path already being located on the east side and the two major T intersections on Hutt Road

Figure 8 Ngauranga to CBD Cycle Corridor Options[53]

8.2.3 Assessment of Options

The report notes the following limitations for Option 1:

- Connection – Due to difficulties going through the ferry terminal site at the southern end, a bridge over Kaiwharawhara Station[54] is needed
- Accessibility - The limited access means that the Great Harbour Way option can only be used by cyclists travelling between Wellington CBD and Ngauranga or Petone, excluding those who travel via Onslow and Kaiwharawhara Roads
- Directness - Since the route is less direct than the existing on-road options commuter cyclists may not choose to use the facility
- Comfort - The route has no shelter and is very exposed (particularly for the wind). On inclement days, users may use an alternative route
- Cost - The expected estimate for construction is $23.6 million and this results in a BCR of 0.5 (compared with a cost of $3.98 million and a BCR of 1.6 for the Hutt Road improvement option)

For Option 2, the on-road options were discounted since they did not enhance safety and were unlikely to attract new users given the high traffic volumes and traffic speeds.

[53] Source: Wellington City Council/ Opus, Wellington Cycleway Feasibility Study: Ngauranga to CBD Preliminary Funding Report, March 2013
[54] Now closed

8.2.4 Preferred Option

The assessment identified the Hutt Road improvement option 2d (a high quality 'Copenhagen style' off-road facility separate from pedestrians and vehicles) as the preferred option as it provides enhanced safety for cyclists given the traffic speeds and high volumes, is projected to attract new users and is most likely to gain financial assistance from the NZ Transport Agency. This option involved relocating the existing parking along the Hutt Road (on public land) to either the back of the private properties, between traffic lanes and cycle lanes or onto clearways on the Hutt Road during off-peak times.

The report notes that option 2c has the benefit of providing a bus lane facility on a corridor which has been identified for bus priority in the future and is a key corridor for buses from the northern suburbs, Khandallah and Ngaio and recommends this option be investigated further as a bus priority project.

8.2.5 Other Considerations

The report discusses the continuation of the route to the CBD via the proposed Great Harbour Way along the eastern side of Aotea Quay. The report notes the aspirations of the Council to improve pedestrian and cycling along Aotea Quay between the Interisland Ferry Terminal and the Railway Station and also notes that improvements to Aotea Quay would connect with the recently upgraded facilities alongside Waterloo Quay.

8.3 Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case (Aug 2015)

8.3.1 Study Objectives

The purpose of the Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case[55] was to investigate and develop a recommended option for a dedicated facility for cyclists and pedestrians between Ngauranga and Petone, as well as investigate wider connections north to Melling and south to Thorndon Quay[56]. The desired outcome was for a proposal that addresses the corridor problems focused around actual and perceived safety, poor connectivity to the network and resilience issues.

8.3.2 Cycleway Facility Options

To ensure consistency between studies, the options for the Hutt Road section were the same as those identified in the Wellington Cycleway Feasibility Study: Ngauranga to CBD (section 8.2). The report noted that the Council had advised that the 'Copenhagen style' cycle lanes were not being progressed because of the proposed parking arrangement and safety concerns for cyclists. The Council had advised that they were looking at options for Hutt Road including a possible bus priority lane shared with cyclists and new parking arrangements.

A separate study was undertaken as part of the Wellington to Hutt Valley Cycle Route report (included as Appendix G) to investigate Section 1 (Tinakori Road to Onslow Road) to a level of

[55] AECOM/ NZTA/ Wellington City Council/ Hutt City, Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case, Aug 2015
[56] In response to analysis during the study and public consultation, the Hutt Road (Sections 1 and 2 of the study) was looked at to a greater level of detail than initially planned.

detail that would enable alternative options to be developed for consideration as part of the Detailed Business Case. The shortlisted options were:

1A Minor improvements to existing path e.g. remove obstructions; parking on footpath

1B Minor improvements to existing path and indented parking

1C Minor improvements to existing path plus road space reallocation to widen path and replace northbound traffic lane with southbound kerbside parking (24 hours)

1D Minor improvements to existing path including widening plus use of southbound traffic lane as a clearway during the morning peak period and parking outside of clearway operation

8.3.3 Cycle Route Options

The study confirmed that an upgrade of the existing path on the Hutt Road was the best option to provide for the predicted increase in demand for a safe cycle and pedestrian facility in this part of the wider corridor.

8.3.4 Consultation

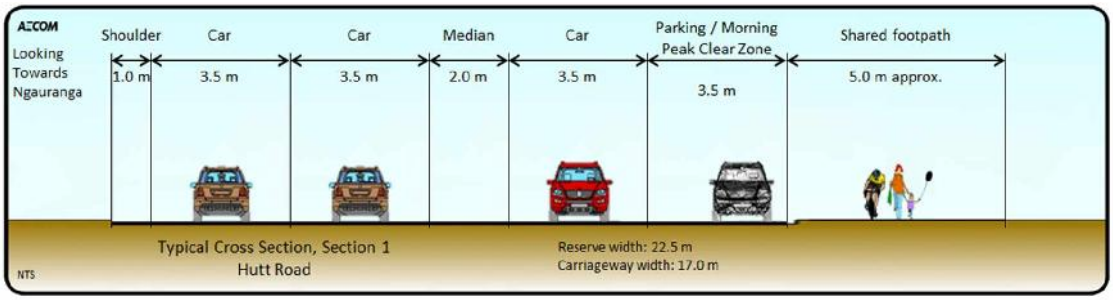
Consultation with directly affected parties and stakeholders was undertaken as part of the development of this Detailed Business Case (as set out in detail in Section 5 of the report[57]). The consultation undertaken included 'enquiry by design' workshops with a walking and cycling reference group and workshops with walking and cycling groups based in Wellington and the Hutt Valley. Open Days and targeted meetings were held and the public were able to provide feedback via the consultation website, or via email, phone or post.

8.3.5 Preferred Option

For Section 1, the study concluded that Option D was the recommended option. Option 1D was considered to have minimal impact on the traffic operation of Hutt Road while providing opportunity to provide customer parking for the businesses located along the Hutt Road.

It was noted that the Council was conducting a separate investigation into the potential Hutt Road improvements which included a potential seaside option south of Ngauranga, with a potential connection at Kaiwharawhara (being either under or over SH1 and the rail corridor).

Figure 9 Hutt Road (Tinakori Road to Onslow Road) Option 1D



For Section 2 (Onslow Road to Ngauranga Gorge) the shortlisted option was for the existing shared path to be upgraded and for minor safety improvements.

[57] AECOM/ NZTA/ Wellington City Council/ Hutt City, Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case, Aug 2015

8.4 Hutt Road Sustainable Transport Study (Dec 2015)

8.4.1 Study Objectives

The purpose of the Hutt Road Sustainable Transport Study[58] was to investigate options to upgrade sustainable transport infrastructure on Hutt Road (Ngauranga - Hutt Road/ Aotea Quay intersection) to provide a multi-modal solution (with a focus on sustainable modes) for the corridor, building on the previous work undertaken[59]. The study was undertaken in conjunction with a review of similar upgrade options on the adjoining Thorndon Quay (Tinakori Road to Mulgrave Street) and where appropriate, this 'entire corridor' was considered within the study.

The objectives of the study were to:

- Maintain or improve the level of service and safety of pedestrians
- Improve the level of service and safety for people on bikes along identified study area
- Improve the level of service for people using buses along identified routes
- Maintain an acceptable level of service for general traffic movements
- Minimise impacts on parking and increase parking supply if feasible
- Ensure implementation costs represent good value for money

8.4.2 Cycleway Facility Options

Five cycling options for Hutt Road were considered as shown in Table 5:

[58] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015
[59] Wellington City Council/ Duffill Watts and Tse, Bus Priority Plan, 2006, Future Bus Network (Greater Wellington Regional Council, 2014-15), Wellington City Council/ Opus, Wellington Cycleway Feasibility Study: Ngauranga to CBD Preliminary Funding Report, March 2013 and AECOM/ NZTA/ Wellington City Council/ Hutt City, Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case, Aug 2015

Table 5 Cycling options considered on Hutt Road

Options	Positive	Negative
Off-road shared or separated path (west side)	• Consistent with facility proposed for SH2 from Petone to Ngauranga. • Cyclists separated from high speed traffic –perceived safety improved. • Improved connection for users from the western catchment (Ngaio, Khandallah).	• Conflicts with major intersections (Tinakori Road, Aotea Quay, Kaiwharawhara Road and Onslow Road). • Crossing facilities required to get to/from the shared path at either end of Hutt Road. • Space constraints under rail bridges that cross Hutt Road.
Off-road shared or separated path (east side)	• Consistent with facility proposed for SH2 from Petone to Ngauranga. • Cyclists separated from high speed traffic –perceived safety improved. • No crossing required to connect to major demands from the Hutt Valley. • Infrastructure already exists.	• Conflicts with accesses, including a number of high volume activities. • Crossing facilities required to get to/from the shared path at southern end of Hutt Road.
On-road protected cycle lanes	• Improved priority for on-road cyclists. • Cyclists separated from high speed traffic –perceived safety improved.	• Conflicts with major intersections (northbound). • Conflicts with accesses and Aotea Quay (southbound). • Crossing facilities required path at northern end of Hutt Road. • Space constraints under rail bridges that cross Hutt Road.
On-road unprotected cycle lanes	• Improved priority for on-road cyclists.	• Conflicts with major intersections (northbound). • Conflicts with accesses and Aotea Quay (southbound). • High speed environment 60-80 km/h and the perceived safety issues. • Safety perceptions are a key barrier to encouraging a wider section of the community to cycle.
Shared Cycle / Bus Lanes	• Improved priority for on-road cyclists.	• Conflicts with major intersections (northbound). • Conflicts with accesses and Aotea Quay (southbound). • Vic Roads Cycle Note 19 recommends that where cycle volumes are greater than 100 per hour and bus services are more frequent than 15 minutes that cyclists should not share with buses. Both of these criteria are met on this corridor.

8.4.3 Cycle Route Options

The study considered both off-road and on-road facilities and the provision of a shared path on the west side of Hutt Road.

8.4.4 Assessment of Cycling Options

Based on guidance prepared by the Cycling Embassy of Denmark[60], it was determined that traffic conditions on Hutt Road indicated that a cycle facility fully separated from traffic was required.

In order to achieve this, parking would need to be removed and a parking demand study was undertaken as part of the wider study[61]. This report found that there is a high proportion of long stay/ commuter parking demand on Hutt Road along its entire length (216 of 287 car parks, 75%). The report identified the opportunity to reallocate road space for active or passenger transport modes by using commuter parking spaces and better utilising current spaces, while still retaining short to medium term parking for local businesses.

As noted in Table 5, placing the cycleway on the west side of Hutt Road poses some issues, including crossing major intersections, the possible modification of railway overbridges and shifting the whole roadway towards the east side, all with cost implications. Accordingly, this option was discounted.

8.4.5 Preferred Cycling Option

The preferred cycling option for Hutt Road was identified therefore, as an off-road shared or separated path on the eastern side of Hutt Road, as this facility best provides for “interested but concerned cyclists” whilst still maintaining a high level of service for more confident cyclists.

The recommended specifications for the path were set out as a three metre bike path with two metre footpath (separated by markings) north of Kaiwharawhara Road, four metre bike path with two metre footpath (separated by markings) south of Kaiwharawhara Road and improved cycle crossings at Ngauranga Gorge and Kaiwharawhara Road intersections.

The report noted that the upgrade of the two-way path could be undertaken in stages with the relocation of hazards and impediments (such as light poles, signs etc.) forming a separate stage.

8.4.6 Multi-Modal Options

As noted in Section 1, the remit of this study was wider than cycling improvements on Hutt Road, as the aim was to investigate options to provide a multi-modal solution for the corridor. Accordingly, the study also looked at walking, bus and traffic network improvements.

The Thorndon Quay/ Hutt Road route is the region’s second busiest patronage corridor (with the first being the Golden Mile) and the report identified that buses carry a comparable number of people as motor vehicles, even though the number of buses is a very small fraction of the number of motor vehicles.

[60] Cycling Embassy of Denmark, Collection of Cycle Concepts 2012
[61] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015

As set out in Section 4.2.1, the study identified that there is potential for bus lanes but there is limited potential to reallocate space on Hutt Road without major Level of Service impacts, however a T2 High Occupancy Vehicle lane could be possible.

As a result of detailed analysis set out in the report, the following network enhancements were suggested (in addition to the preferred cycling option set out above):

- Buses: Bus Priority Measures including peak hour directional T2 lanes, bus lane queue jump at Ngauranga Gorge intersection and T2 lanes at Kaiwharawhara Road intersection, as well as consolidated bus stops and bus stop bypasses
- Walking: Dedicated foot path and improved crossing facilities at Ngauranga Gorge intersection
- Traffic: All sections with two lanes in same direction suitable for off-peak clearways

8.4.7 Assessment of Multi-Modal Options

Based on the network enhancement recommendations, two options were identified:

1. Option A - High sustainable transport utility

   Remove parking on the existing path and provide a consistent segregated (by markings) facility along the length of Hutt Road. T2 lanes are recommended to be implemented in the AM peak southbound and the PM peak northbound <u>with no on-road parking provided except where it does not restrict visibility</u>.

2. Option B - High sustainable transport utility with a reduced parking impact

   Remove parking on the existing path and provide a consistent segregated (by markings) facility along the length of Hutt Road. T2 lanes are recommended to be implemented in the AM peak southbound and the PM peak northbound <u>with off-peak clearway parking in the southbound lane</u>.

The estimated cost for both options was $5.6 million (including 15% contingency).

8.4.8 Preferred Multi-Modal Option

Option B was identified as the preferred scheme as it best meets the objectives of the study (set out above). Option B will result in a shortfall of only 50 car parks along the corridor, the majority of which are used by long stay/ commuter parkers.

8.4.9 Safety Audit

A preliminary stage safety audit of this design was undertaken by GHD in July 2015[62]. Most of the safety concerns identified in the audit were minor and were either adequately responded to by the designer or plans were amended accordingly. One area not resolved and also picked up in the NZ Transport Agency Quality Assurance Review was safety issues at key driveways and this will be looked at as part of the final design as set out in Section 9.5.

[62] Wellington City Council/ GHD, Hutt Road - Thorndon Quay Sustainable Transport Study Preliminary Safety Review, July 2015

8.5 Thorndon Quay Sustainable Transport Study (Dec 2015)

8.5.1 Study Objectives

The purpose of the Thorndon Quay Sustainable Transport Study[63] was to investigate options to upgrade sustainable transport infrastructure on Thorndon Quay (Tinakori Road to Mulgrave Street) to provide a multi-modal solution (with a focus on sustainable modes) for the corridor, building on the previous work undertaken[64]. As noted in Section 8.4, this study was undertaken in conjunction with the Hutt Road Sustainable Transport Study and where appropriate, this 'entire corridor' was considered within the study.

The objectives of the study were the same as those for the Hutt Road study as set out in with the addition of the following objectives:

- Identify opportunities for urban landscaping/ beautification through the Thorndon Quay section if feasible

8.5.2 Cycleway Facility Options

Five cycling options for Thorndon Quay were considered as shown in Table 6:

[63] Wellington City Council/ Opus, Thorndon Quay Sustainable Transport Study, December 2015
[64] Wellington City Council/ Duffill Watts and Tse, Bus Priority Plan, 2006, Future Bus Network (Greater Wellington Regional Council, 2014-15), Wellington City Council/ Opus, Wellington Cycleway Feasibility Study: Ngauranga to CBD Preliminary Funding Report, March 2013 and AECOM/ NZTA/ Wellington City Council/ Hutt City, Wellington to Hutt Valley Cycle and Pedestrian Link Detailed Business Case, Aug 2015

Table 6 Cycling options considered on Thorndon Quay

Options	Positive	Negative
Off-road shared or separated path (west side) (two-way)	• Consistent with facility proposed for SH2 from Petone to Ngauranga and on Hutt Road. • Cyclists separated from traffic – perceived safety improved.	• Conflicts with intersections (Davis Street and Mulgrave Street). • Conflicts with accesses. • Crossing required to connect to Hutt Road facility.
Off-road shared or separated path (east side) (two-way)	• Consistent with facility proposed for SH2 from Petone to Ngauranga. • Cyclists separated from traffic – perceived safety improved. • No crossing required to connect to Hutt Road facility (if also continued along Hutt Road).	• Conflicts with accesses.
On-road protected cycle lanes (one-way)	• Improved priority for on-road cyclists. • Cyclists separated from traffic – perceived safety improved.	• Conflicts with intersections and accesses (northbound). • Conflicts with accesses (southbound). • Space constraints under rail bridges that cross Hutt Road. • Crossing required to connect to Hutt Road facility.
On-road unprotected cycle lanes (one-way)	• Improved priority for on-road cyclists.	• Conflicts with intersections and accesses (northbound). • Conflicts with accesses (southbound). • Perceived safety issues. • Safety perceptions are a key barrier to encouraging a wider section of the community to cycle. • Crossing required to connect to Hutt Road facility.
Shared Cycle / Bus Lanes	• Improved priority for on-road cyclists.	• Conflicts with intersections and accesses (northbound). • Conflicts with accesses (southbound). • Vic Roads Cycle Note 19 recommends that where cycle volumes are greater than 100 per hour and bus services are more frequent than 15 minutes that cyclists should not share with buses. Both of these criteria are met on this corridor. • Crossing required to connect to Hutt Road facility.

8.5.3 Cycle Route Options

The study considered both off-road and on-road facilities and the provision of a shared path on both the east and west sides of Thorndon Quay.

8.5.4 Preferred Cycling Option

Based on guidance prepared by the Cycling Embassy of Denmark, the traffic conditions on Thorndon Quay indicate that a fully separated cycle facility is required.

The preferred cycling option for Thorndon Quay was identified as a protected two way cycle path as this facility best provides for the “interested but concerned cyclists” whilst still maintaining a high level of service for more confident cyclists.

The cycle path is proposed to be separated from pedestrians because of the high pedestrian volumes on Thorndon Quay and is proposed to be provided on the eastern side of Thorndon Quay to avoid the intersections on the west side and to allow for a tie-in to the facility on Hutt Road.

The recommended specifications for the path were set out as a four metre bike path with two metre footpath (separated by markings) north of Tinakori Road and four metre bike path with separate footpath south of Tinakori Road.

8.5.5 Multi-Modal Options

As noted in Section 8.5.1, the remit of this study was wider than cycling improvements on Thorndon Quay, as the aim was to investigate options to provide a multi-modal solution for the corridor. Accordingly, the study also looked at walking, bus and traffic network improvements.

As noted in Section 8.4.6, the Thorndon Quay/ Hutt Road route is the region’s second busiest patronage corridor and buses carry a comparable number of people as motor vehicles along the corridor, even though the number of buses is a very small fraction of the number of motor vehicles.

The study identified that that bus lanes are desirable southbound in the AM peak for most of the corridor but demand for northbound PM peak bus lanes and other non-peak directional bus lanes is less clear. On the Thorndon Quay section a peak hour bus lane would be possible through a parking clearway.

As a result of detailed analysis set out in the report, the following network enhancements were suggested (in addition to the preferred cycling option set out above):

- Buses: Bus Priority Measures, consolidated bus stops and bus stop bypasses
- Walking: Signalised pedestrian crossings at all locations where crossing more than two traffic lanes (for safety reasons) and a pedestrian crossing adjacent to the bus stop under the motorway
- Traffic: Signalised pedestrian crossings to reduce delays for traffic and peak hour bus lanes to reduce delays for traffic caused by buses entering and exiting the traffic stream

8.5.6 Assessment of Multi-Modal Options

Based on the network enhancement recommendations, three options were identified:

1. Option A – High sustainable transport utility

   A four metre wide two-way cycle path with peak hour directional bus lanes <u>with limited clearway parking at other times</u>, pedestrian crossing changes, bus stop bypasses and landscape/ urban design improvements

2. Option B - High sustainable transport utility with lower parking impact

A four metre wide two-way cycle path with peak hour directional bus lanes with clearway parking at other times, pedestrian crossing changes, bus stop bypasses and landscape/ urban design improvements

3. Option C – Low parking impact

   Retention of southbound cycle clearway in AM peak and introduce a northbound cycle clearway in the PM peak, along with pedestrian crossing changes, bus stop bypasses and landscape/ urban design improvements

   A lower cost solution that did not significantly impact the provision of parks along Thorndon Quay.

The estimated cost for options A and B was $4.2 million (including 15% contingency).

Option C was discounted at this stage of the assessment as it did not meet a number of the objectives including providing a full time cycleway that encouraged new users.

8.5.7 Preferred Multi-Modal Option

Option B was identified as the preferred scheme as it best meets the objectives of the study (set out above). Option B will result in a shortfall of around 65 car parks along the corridor, the majority of which are used by long stay/ commuter parkers.

8.5.8 Safety Audit

A preliminary stage safety audit of this design was undertaken by GHD in July 2015[65].

8.6 Additional Route Analysis

8.6.1 Hutt Road – Railway Corridor

The Council has considered a possible alignment adjacent to the railway line (on land owned by KiwiRail) behind the Hutt Road retail units. It was determined that there was insufficient continuous space for a cycleway and this alignment would have accessibility and security issues. KiwiRail's standards require seven metres between the centreline of the railway tracks and a fence line; in exceptional circumstances and with special operational permission, KiwiRail may be able to drop this requirement to five metres. Even at the lower five metre requirement there would be pinch points, one of the worst being by the Spotlight building (as shown in Figure 10) where a two-way cycle path would be restricted to a width of 0.9 metres – even a single/ one-way cycle lane requires an operating space of at least one metre. Further to this, there are high vertical hazards on either side and a 0.5 metre buffer to these is desirable.

[65] Wellington City Council/ GHD, Hutt Road - Thorndon Quay Sustainable Transport Study Preliminary Safety Review, July 2015

Figure 10 Railway Line Route Alignment Pinch Point

8.6.2 Thorndon Quay - Corridor Comparisons (Nov 2015)

A briefing was given to Councillors in November 2015 on three possible route alignments for the section between Hutt Road/ Aotea Quay intersection and the CBD (Section 2) with commentary provided on each option, as follows:

1. Aotea Quay
   - Requires land from CentrePort to provide a safe and convenient connection - discussions have indicated no land is available, Officers will continue to follow this up
   - Slightly less direct for commuters
   - Higher traffic speeds (70 km/h) and volumes make it feel less safe and comfortable
   - Development is mostly industrial and commercial which can feel less secure
   - The area is slightly more exposed
2. Rail Corridor
   - Requires land access agreement from KiwiRail
   - A continuous corridor is not available, making the route less direct
   - Personal safety concerns with being in isolated areas, would require being fenced in
   - More difficult to maintain, likely to have surface debris problems
3. Thorndon Quay

- Currently very well used
- Direct to CBD and employment centres
- Mix of commercial and residential buildings, enhances personal security
- Potential for beautification to improve attractiveness
- Lower traffic speeds and volumes than Aotea Quay

Assessment of Options

An assessment of the three routes (using criteria from the New Zealand Cycle Network and Route Planning Guide) was provided at the briefing, as set out in Table 7. The Aotea Quay and KiwiRail (with land) route options were discounted due to sufficient land not being expected to be made available.

Table 7 Hutt Road to CBD Cycle Corridor Considerations

Criteria*	Aotea Quay		Kiwirail		Thorndon Quay
	With Land	Without Land	With Land	Without Land	
Safety	4	3	1-2	1-2	4
Comfort	3	2-3	2	2	4
Directness	4-5	3	5	2-3	5
Coherence	4-5	2-3	4-5	2-3	4-5
Attractiveness	5	3-4	2-3	1-2	4-5
Total	~~20-22**~~	14-16	~~14-17**~~	8-12	21-23

The assessment concluded that:

- Thorndon Quay is the preferred route (based on New Zealand Cycle Route Planning Guidance) especially for people commuting by bike
- Aotea Quay would also make an attractive route, especially for recreational cyclists should land become available
- Without land, the Aotea Quay route would require signalised crossings which would lead to delays for vehicles and people on bikes. Given this, most confident cycle commuters are expected to continue to use Thorndon Quay with some non-confident or recreational riders expected to be attracted to the Aotea Quay facility
- A route along the rail corridor would be little used unless an entire corridor could be acquired and KiwiRail has indicated that this is not feasible. Even if developed, the route is the least attractive, would have personal security issues and likely have maintenance problems
- Officers would continue to work with its funding partners and stakeholders to confirm land availability

8.7 Assessment against Investment Objectives

To provide a structured approach for comparing options, all of the options identified in the studies have been assessed against the five agreed investment objectives:

1. **Level of Service:** Achieve a high Level of Service for cyclists within an integrated transport network.
2. **Network Efficiency:** Improve cycling infrastructure and facilities so that cycling makes a much greater contribution to network efficiency, effectiveness and resilience.
3. **Cycling Uptake:** Cycling is a viable and attractive transport choice.
4. **Cycle Safety:** The crash rate, number, and severity of crashes involving people on bikes are reduced.
5. **Wellington City:** Provide transport choices by increasing the opportunity for people to ride bikes so as to improve the sustainability, liveability and attractiveness of Wellington.

Assessment criteria ratings were applied as per Table 8 follows:

Table 8 Criteria ratings

Impact	Score
Does not meet investment objectives[66]	X
Partially meets objectives	✓
Meets objectives	✓✓
Exceeds objectives	✓✓✓

Table 8 summarises the overall results of the long list option assessment with further commentary on the overall conclusions provided below.

[66] For the assessment this means that the situation stays the same or gets worse

Table 9 Route/ Facility Options Assessment

		Investment Objectives					Assessment Criteria	
		1	2	3	4	5		
Route/ facility option		Level of Service	Network Efficiency	Cycling Uptake	Cycle Safety	Wellington City	Affordability	Feasibility
Section 1: Hutt Road – between Ngauranga and Hutt Road/ Aotea Quay intersection								
1	Do Nothing	X	X	X	X	X	No cost	Yes
2	Harbour-side	✓✓✓	✓	✓	✓	✓✓	High cost	Difficult
3	Hutt Road (off-road shared or separated path east side) – improve existing	✓✓	✓✓	✓✓	✓✓	✓✓	Low to medium cost	Relatively straight-forward
4	Hutt Road (off-road shared or separated path west side)	✓✓	X	✓	X	✓	Medium to high cost	Some pinch points
5	Hutt Road (on-road protected cycle lanes)	✓✓	X	X	✓	✓	Low to medium cost	Straight-forward
6	Hutt Road (on-road unprotected cycle lanes)	X	X	X	X	X	Low cost	Straight-forward
7	Hutt Road (shared bus/ cycle lanes)	X	X	X	X	X	Low cost	Straight-forward
8	Railway Corridor	✓✓	✓✓	✓	✓✓	✓	Medium cost	Difficult

Section 2 : Thorndon – between Hutt Road/ Aotea Quay and CBD (Bunny Street)								
9	Do Nothing							
10	Aotea Quay (east side)							
11	Aotea Quay (west side)							
12	Thorndon Quay (off-road, two-way shared or separated path east side)							
13	Thorndon Quay (off-road, two-way shared or separated path west side)							
14	Thorndon Quay (on-road protected cycle lanes)							
15	Thorndon Quay (on-road unprotected cycle lanes)							
16	Hutt Road (shared bus/ cycle lanes)							
17	Railway Corridor							

8.7.1 Section 1: Hutt Road – between Ngauranga and Hutt Road/ Aotea Quay intersection

Option 1 – Do Nothing: This option does not deliver on the investment objectives but is retained as a baseline from which to compare the performance of other options.

Option 2 – Harbour-side: This option would provide a high quality, fully separated facility that has a positive impact on the attractiveness of Wellington as a place to live and increases cycle mode share. Its contribution to the network is limited as direct connections to the northern and western suburbs would be difficult. There would be minor safety improvements depending on connections to and from the route, including through the port area though there would be new safety concerns created from exposure to high winds. The estimate for construction is $23.6 million which is considered high when compared to other options and there may be difficulties with connections at the southern end.

Option 3 – Hutt Road (off-road shared or separated path east side) – improve existing: The option meets all five of the investment objectives as it will provide a high quality, direct cycle route, with good connections to nearby communities that provides for “interested but concerned cyclists” whilst still maintaining a high level of service for more confident cyclists. This option also provides a high quality environment for pedestrians and will reduce conflicts between these modes and between cyclists and vehicles, greatly improving crash rates. This option also meets investment objective 5, as it will improve the sustainability of Wellington and the health of its residents. The estimate for construction is $3.98 million which is considered in the low to medium range and is considered relatively straightforward to implement.

Option 4 – Hutt Road (off-road shared or separated path west side): The proposal to place the cycleway on the west side of Hutt Road poses some issues, as the crossing of the major intersections at Kaiwharawhara and Onslow Road would cause delays to all users and create the potential for an increased number of left turn conflicts. There would be some positive benefits due to the level of service provided by a facility with few commercial driveways and no parking provided on the path. There will be considerable costs associated with resolving issues on this route including possible modification of railway overbridges and shifting the whole roadway towards the east side.

Option 5 – Hutt Road (on-road protected cycle lanes): This option could provide an improved level of service for cyclists, however it is considered unlikely to attract new users given the high traffic volumes and traffic speeds along Hutt Road. This option is not expected to greatly enhance safety as there is still the potential for conflicts at major intersections and with cars entering and exiting commercial driveways. Costs for this option are expected to be in the low to medium range, as with option 4 there may be costs and feasibility issues associated with possible modification of railway overbridges.

Option 6 – Hutt Road (on-road unprotected cycle lanes): This option does not meet any of the investment objectives. In this high speed environment there would be a greater chance of more severe crashes, potentially having a negative impact on safety perceptions and uptake. This option does not provide any level of service for cyclists, would delay journey times through increased numbers of on-road cyclists (coming from the off-road shared path) and would have not improve the attractiveness of Wellington as a place to live, or work. This is a low cost option that would be straightforward to implement.

Option 7 – Hutt Road (shared bus/ cycle lanes): This option also doesn't meet any of the investment objectives, for many of the reasons noted for option 6 and further to this, would introduce a new source of potential conflict - buses – with even greater mass than other vehicles on this road and that need to stop at bus stops along the route. This is a low cost option that would be straightforward to implement.

Option 8 – Railway Corridor: The proposal to place the cycleway along the corridor is one that would deliver positive benefits in terms of a reduction in the number and severity of crashes and greater network efficiency, achieved by removing cyclists from Hutt Road. There would however be new personal security concerns, particularly for vulnerable users on the route outside peak times and this is expected to impact on uptake. Costs for this option are expected to be in the medium range as there will be pinch points to be resolved and infrastructure such as lighting will be required. This route is not considered feasible at this time as the corridor is not expected to be made available for this purpose.

8.7.2 Short List of Options

Based on the above assessment, Options 2, 3 and 8 have been shortlisted as they are the only options that meet all of the Investment Objectives. Option 8 has been discounted as it is not considered feasible to construct at this time.

In comparing Options 2 and 3, Option 2 has lower costs and is considered relatively straight forward to implement, as noted in detail in the Wellington Cycleway Feasibility Study: Ngauranga to CBD[67].

8.7.3 Section 2: Thorndon – Hutt Road/ Aotea Quay and CBD (Bunny Street)

To be prepared.

8.8 Conclusion

8.8.1 Hutt Road (Section 1)

Option 3 (Option B from the Hutt Rod Sustainable Transport Study) was selected as the option to be taken forward for the Hutt Road section as it best meets all of the investment objectives and is considered both affordable and feasible. Further details about this route and the community engagement process undertaken is set out in Section 9.

8.8.2 Thorndon (Section 2)

Two route alignments for the Thorndon section are to be examined further:

1. Thorndon Quay
2. Aotea Quay

Council Officers are planning a workshop with the new Council to decide the preferred route. This workshop is to be held before the end of December 2016 and following this, community engagement will commence.

[67] Wellington City Council/ Opus, Wellington Cycleway Feasibility Study: Ngauranga to CBD Preliminary Funding Report, March 2013

9. Recommended Option - Hutt Rd

9.1 Introduction

Option B from the Hutt Road Sustainable Transport Study (referred to as Option 3 in the above assessment) was taken forward as the recommended option for Hutt Road:

> Remove parking on the existing path and provide a consistent segregated (by markings) facility along the length of Hutt Road. T2 lanes are recommended to be implemented in the AM peak southbound and the PM peak northbound with off-peak clearway parking in the southbound lane.

Some refinements were made as a result of design considerations, constraints and consultation, as set out below.

9.2 Hutt Road Proposals (as consulted on)

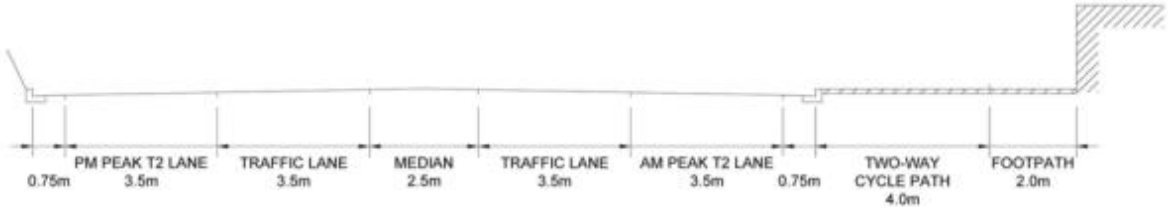
The Hutt Road cycleway proposals (as consulted on) involve creating a dedicated cycle way and separate footpath along the eastern side of Hutt Road between Ngauranga Gorge and the Hutt Road/ Aotea Quay intersection, a distance of approximately 3 kilometre. Design features include (and are illustrated in Figure 11):

- 3 metre wide dedicated cycle path and 2 metre wide dedicated pedestrian space north of Ngaio Gorge (Kaiwharawhara Road). This would widen to a 4 metre wide dedicated cycle path alongside the 2 metre wide dedicated pedestrian space, from Ngaio Gorge (Kaiwharawhara Road) to the Hutt Road/ Aotea Quay intersection.
- 1 metre car door zone for cars parked parallel to the cycle path
- Peak-hour directional T2 lane on Hutt Road. These would apply to southbound traffic in the morning peak times and to northbound traffic in the afternoon peak times. The transit lanes would be reserved for passenger vehicles carrying two or more people, in-service taxis, motorcycles, mopeds, emergency services and cyclists who choose to ride on the road
- Bus stop bypasses for cyclists at three bus stops along Hutt Road
- Intersection improvements at Ngauranga Gorge to reduce bus and vehicle delays and provide safe crossing opportunities for pedestrians and cyclists
- Remove hazards such as parking[68], trees, lighting poles and other utilities on the existing path to give consistent cycling and walking paths and install new streetlights on the western side of Hutt Road
- Provide a smooth travelling surface for users
- Kerb crossings and judder bars to slow vehicles entering the cycle/ pedestrian path space
- On-street parking along Hutt Road provided after 9 am weekdays and at all times on weekends

[68] It was proposed that the number of car parks on the Hutt Road be reduced from the current 171 to 82 car parks. Of the 82 car parks, 73 are only available after 9am − the other 9 are near the childcare centres and are available at all times. The areas where parking is to be relocated is set out in the plans in Appendix B. Approximately 100 car parks were lost due to proposals to set the on-road parking spaces back from vehicle accesses by 5 metres and some of the proposed bus stop bypasses also had an effect on car park spaces.

- On-street parking near childcare services provided at all times
- Relocation of the bus stop near Westminster Street
- Lengthening of vehicle acceleration/ merge lane from Onslow Road intersection

Figure 11 Kaiwharawhara to Aotea Quay Bridge Typical Cross Section



9.3 Engagement

Engagement with landowners/ leaseholders, Councillors, Cycle Advocacy Groups and the Public was undertaken in accordance with the Hutt Road Cycleway Engagement and Consultation Plan.

9.3.1 Adjacent landowners and leaseholders

Engagement with adjacent landowners and leaseholders along the Hutt Road was undertaken prior to the proposals being formally consulted on.

A letter was mailed out/dropped off in January 2016 to notify landowners and leaseholders of a drop-in session to view the study recommendations and give initial feedback. The drop-in session was held on 28 January 2016 to present the study outcomes and recommendations for Hutt Road.

Most feedback from this session received centred around a few central themes:

1. Commuter car parking - general concern as to the availability of staff parking
2. Customer car parking - a couple of businesses which would not have on-street parking immediately in front of their businesses expressed concern that parking further away may discourage some customers
3. Route alignment - enquiries as to why the cycleway was not going to be located elsewhere (hillside, by rail tracks, etc.)

With regards to car parking, the Council acknowledged that current commuter parking demand would not be met for this area. It was noted that some of the current commuters are not local workers but others who park then walk, cycle or bus into the CBD. The Council noted that some local businesses have opportunities to arrange with adjacent landowners to provide for parking until at least 9 am to help mitigate effects. The Council highlighted that removal of commuter parking without replacement is consistent with the adopted Cycling Framework and the corridor's ranking as an arterial transport route means that the movement of people needs to be a priority[69].

[69] Wellington City Council, Proposed Traffic Resolution for Hutt Road, 07.03.16

The design was altered based on engagement with adjacent landowners as follows:

- The kerb line adjacent to the BMW dealership was modified to allow some display parking to be retained, as well as allow for better sight lines coming out of Westminster St
- Parking time limits were adjusted at some locations, in particular around the Java store to assist with customer parking

A follow-up email was sent to attendees the day after the drop-in session to thank them for attending and with a link to the full report[70].

A letter was mailed out/dropped off in March to notify landowners and leaseholders of the commencement of the formal feedback period and drop-in sessions.

9.3.2 Councillors

A briefing was given to the Transport and Urban Development (TUD) Committee in November 2015 outlining the study recommendations and next steps for engagement. Additional individual briefings were held with Councillors Foster and Woolf. All Ward Councillors were notified of and invited to the landowner/ leaseholder drop-in session on 28 January 2016[71].

In early March notices were sent to all Councillors advising them of the upcoming Traffic Resolution consultation with details of the drop-in sessions and the new website http://cycleways.wellington.govt.nz.

9.3.3 Cycle Advocacy Groups

A meeting was held with Cycle Aware Wellington and the Hutt Cycle Network to review the study[72] recommendations on 26 November 2015.

9.3.4 Public

Formal public feedback[73] was sought from 16 March through to 18 April[74] via the dedicated website, notices along Hutt Road, flyers handed out to pedestrians and cyclists on the existing path and two open days:

- 4.30 − 6.30 pm, Wednesday 30 March, La Cloche, 134 Hutt Road
- 9 am – 1 pm, Saturday 2 April, 241 Thorndon Quay (formerly Nancy's Embroidery)

9.4 Formal Consultation Feedback

9.4.1 Written submissions - key points

A total of 991 written submissions were received[75]. The majority of these were made by individuals (97%) with the remaining 3% being made on behalf of an organisation. Those who

[70] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015
[71] Ward Councillors gave their apologies
[72] Wellington City Council/ Opus, Hutt Road Sustainable Transport Study, December 2015
[73] That satisfies the consolidated bylaws requirements for making changes to parking by resolution
[74] Extended from 13 April
[75] Most respondents answered all of the questions; 929 responses was the lowest response rate for a question

typically travel by cycle (44%) and by car (43%) made up the largest groups who made submissions. Submissions were received from people living across Wellington, in fact from 50 different suburbs, as well as from the Hutt Valley. Suburbs with the largest groups of respondents were Khandallah (17%), Ngaio (9%) and other (22%) which has been assumed to comprise a high number of people from the Hutt Valley.

67% of submissions were in general support of the proposals for Hutt Road (43% responded 'yes', 24% responded 'yes, but please consider…(add comments)'). Common themes made in the comments to this question included[76]:

- Safety issues with vehicles crossing cycle path haven't been adequately addressed (19%)
- How does this fit in with the wider network? (9%)
- Route alignment not supported – should be by sea or other side of Hutt Road (8%)
- T2 lane not supported (7%)
- A clear separation between cyclists and pedestrians is needed (6%)
- Establish who has right of way, particularly at drive ways (4%)
- Do not support removal of (so many) car parks (4%)

When asked about the individual proposed changes there was general support for all of them as follows: for people on foot (75%), for people using buses (68%), for people on bikes (69%), to parking (60%) and to provide a T2 transit lane (59%).

Common themes made in the comments to the question about the proposed changes to parking included:

- Support investment in a multi storey/ shared car park (12%)
- Support removal of more parking (10%)
- Prevent people parking on the cycle path (9%)
- Increase visibility of vehicles exiting driveways/ provide a space to wait to access road that doesn't block path (9%)
- Ensure businesses have enough parking (8%)
- Support investment in a park and ride facility (7%)

9.4.2 Verbal submissions – key points

Submitters were given an opportunity to speak to their submission at a public hearing and on 4 May 2016, 45 submitters addressed the Committee[77]. A summary of comments made is provided below[78].

General comments:

- Existing shared path is inadequate and unsafe

[76] Very similar comments were made in response to the question 'do you support the proposed changes for people on bikes?'
[77] Comprised of eight Councillors
[78] Collated from notes provided by the Committee Chairperson, Councillor Andy Foster

- Get on with it!
- A staged approach is acceptable but don't compromise – especially safety
- Cycling is growing strongly. Hutt Road is the most important route in the city. Cycle volumes here will grow even more (strongly) with Petone – Ngauranga completion and e-bikes
- Most drivers and cyclists behave well and considerately of each other. That behaviour has improved as a result of greater awareness
- We need to do this as part of making Wellington a more liveable city and support tourism

Cycling and pedestrian comments:

- There are a wide variety of people on bikes. Most use the shared path (estimated between 3 in 4 and 9 in 10), however the faster more confident people use the road
- Can we improve the road through providing at least a 1 metre shoulder in both directions and ensuring good street/ gutter sweeping?
- Key basic improvements that seem widely agreed include:
  - Moving lights
  - Smooth surface
  - Focus on Westminster Street
  - Spotlight (preference to integrate into traffic light system)[79]
  - All driveways to have judder bars, signage and level path (rather than dipping at driveways - also slows vehicles down)
  - Good level of ongoing maintenance
  - Addressing key pinch points (e.g. Kaiwharawhara Stream/ Spotlight and Westminster St) and providing facilities at Ngauranga Gorge
- Some submitters would rather have the cycleway at road level - this would presumably need the kerb edge to be cut back
- General agreement with separating pedestrians and cyclists with clear demarcation and pavement marking, though some noted the number of pedestrians drops off north of Kaiwharawhara Road. However, if this requires removing parking it would be opposed by some submitters
- Alternative routes:
  – One/ two way on western side of road
  – Railway service lane – not possible at grade but possibly some opportunity to elevate cycleway
  – Seaward side – issues with this are very high cost, need for reclamation, need to get across the Port, need to integrate into a larger project. Will take a long period of time (5-10 years at least) to achieve. Does not do anything for Ngaio and Khandallah.

[79] It is noted that this suggestion has previously been investigated and modelled with different phasing scenarios and all options presented negative effects on general traffic

Parking comments:

- Loss of parking spaces will impact:
  - Employees who arrive early in the day
  - Parking for childcare and will need to take children across the cycle lane
  - Long stay park and riders
  - Rangiora Avenue
- Suggestions for alternative parking locations include Ngauranga Gorge or private land - potential for some cost recovery
- Existing parking obscuring business entrances
- Angle parking especially at childcare centre with vehicles existing and arriving across the shared path, especially at peak times

T2 lane and public transport comments:

- Safety concern about vehicles having to turn from T1 outer lane across T2 lane into all of the driveways and roadways
- Concerns about congestion impacts, especially at Onslow Road
- Ability to enforce T2
- Awareness that this is an important bus route and going to become more important with the Greater Wellington bus route network improvements

9.5 NZ Transport Agency Quality Assurance Review

The NZ Transport Agency commissioned a quality assurance review of the Hutt Road proposals (as consulted on). This review was undertaken by knowledge leaders in cycle facilities who were independent of the Council's project team.

The review concluded:

- There is a clear and increasing need to upgrade the Hutt Road cycleway now
- The chosen proposal is the best of a number of constrained options
- There are residual risks relating to the safety of cyclists and pedestrians at driveways but these can be mitigated to an acceptable level by careful design and warning devices
- Further investigation of parking demand and alternative opportunities is recommended
- It is reasonable to stage the implementation of the cycleway upgrade, which should also allow time to address the parking issues noted

9.6 Officer Recommendation

Taking into account comments made as part of engagement and consultation, a phased implementation approach was proposed for consideration by the Transport and Urban Development (TUD) Committee (as set out in detail below). Other key changes included:

- Delaying the widening and re-surfacing of the path between the Caltex Fuel Stop (opposite Onslow Road) and Ngauranga Gorge as it is considered to be of sufficient quality and

width (it has fewer pedestrians than the section further south) and will be improved and widened when the Ngauranga to Petone cycleway is constructed in approximately five years

- Delaying plans to remove parking while a better understanding of usage is established via a parking survey and alternative locations for car parking are investigated. Subject to the findings of these studies, proposals are to either relocate parking to off-road locations or create a southbound clearway for restricted on-road parking in off-peak periods
- The T2 lane is no longer being proposed
- Providing better on-road facilities by narrowing vehicle lanes to provide wider shoulders on both sides of Hutt Road
- Providing dedicated on-street parking spaces adjacent to and for the use of the Childcare Centres

  The existing parking on the path is technically illegal, as is the driving along the path to get to and from each parking space, however the practice has long been accepted and businesses have become reliant upon it. Generally, the parking is all-day parallel parking with only two movements associated with each space per day. The phased approach would see this parking remaining with some exceptions in the first phase. One area however where it is proposed to make changes is to address the short-stay angle parking associated with drop-off and pick-up from the iKids childcare centre. It is proposed to develop up to nine short-stay parking spaces on the road with sufficient buffer to enable safe access to and from the driver's side of the car. In the current phase the Council would look to retain the parking immediately adjacent to the building, however this would need to be converted to parallel parking and would accommodate staff parking.

9.6.1 Phased Implementation Approach

The Hutt Road cycleway is one component of a suite of improvements proposed for this key arterial transport corridor. Because there are multiple interdependencies between the various elements, it has been considered that there will be a challenge to get clarity of decision-making. However, it has been deemed possible to sequence decisions and implementation in such a way that it links to identified need and key trigger points. Not only does this approach reduce potential confusion and conflict in decision-making but it provides a more transparent pathway towards greater understanding and timing of proposed interventions.

In adopting this approach, the following assumptions have been made:

- The growth in demand for cycling on this route is strongly linked to the completion of the Hutt Valley to Wellington cycle and pedestrian link. This is subject to resource consents, funding and delivery and is likely to be 4-5 years before completion.
- The Hutt Road serves as a key arterial for all transport modes and it will be problematic to depower its general traffic and freight functions until such time as additional south bound motorway lane capacity and alternative port access from the motorway is provided. It is anticipated that this could be 5 years away.

The initial phase will be a comprehensive upgrade of a shared path but future-proofing the path for removal of parking and separating bikes and walkers. Options for traffic management to support public transport will be linked to capacity improvements elsewhere on the network.

The phased implementation approach (for the project as consulted upon) was proposed as follows:

Immediate – no trigger points

a. Remove and relocate the light poles and other infrastructure from the current shared path

b. Modify the existing bus stop adjacent to Placemakers as proposed to enable buses to stop without affecting through traffic

c. Remove the southbound bus stop north of Westminster Street

d. Remove the southbound bus stop on Kaiwharawhara Road near the intersection with Hutt Road

e. Install a new southbound bus stop free of through traffic south of the intersection of Kaiwharawhara Road

f. Provide up to nine short-stay on-street car parks adjacent to iKids and Early Years Childcare Centres

g. Widen the Kaiwharawhara Stream shared path bridge

h. Resume the road corridor in the space that is currently part of the Spotlight car park to improve the shared path width in this location

i. Improve the surface condition of the shared path between the Caltex Fuel Stop and Aotea Quay

j. Investigate, design and implement speed controls at business egress points where it is beneficial to do so[80]

k. Investigate demand and alternative options for current shared path car parking, including but not limited to options around the Ngauranga Train Station

l. Consider narrowing vehicle lanes to provide wider shoulders for on-road cyclists either side of the Hutt Road and implement if beneficial

m. Traffic signal improvements at Ngauranga, including improvements for buses and pedestrians

Short/Medium – subject to completion of k above

n. Relocate shared path car parking to alternative off-road locations, or

o. Create southbound clearway for restricted on-road parking in off-peak periods

When the Petone to Ngauranga cycleway improvement is consented and fully funded

p. Implement improvements to the cycleway between Caltex and Ngauranga

[80] The NZ Transport Agency Quality Assurance Review notes that addressing crashes with northbound cyclists will require careful attention to design detail and may require trials of innovative treatments

When the southbound motorway capacity and port access to the ferry terminals is improved (an additional trigger point will be also providing for enhanced bus priority through Thorndon Quay – estimated to be in the first half of 2018).

q. Implement improved bus priority

Risks

The risks in implementing this phased approach have been identified as follows:

- Funding may not be available for future phases, e.g. parking removal and widening and re-surfacing the path between Caltex Fuel Stop and Ngauranga Gorge
- There are a number of uncertainties created around parking removal including the results of the parking survey and alternative parking investigations, as well as this element being the subject of a further Traffic Resolution
- There are dependencies on projects being implemented by others

9.7 Transport and Urban Development Committee Resolution

Committee approval was sought for the phased implementation approach at the Wellington City Council's Transport and Urban Development (TUD) Committee meeting on 19 May 2016.

The Committee heard from a number of submitters as well as the Lead Officer and NZ Transport Agency representatives. Questions were asked, issues were debated and a number of changes were proposed to the phased implementation approach (mainly in relation to additional research the Councillors wanted undertaken. The outcome was that City Councillors voted unanimously in support of the recommended staged approach (as amended) to implementing the cycleway, as set out below.

1. Receives the information
2. Agrees to the phased implementation of transport improvements to the Hutt Road as follows:

Immediate – no trigger points

a. Remove and relocate the light poles and other infrastructure from the current shared path

b. Modify the existing bus stop adjacent to Placemakers as proposed to enable buses to stop without affecting through traffic

c. Remove the southbound bus stop north of Westminster Street

d. Remove the southbound bus stop on Kaiwharawhara Road near the intersection with Hutt Road

e. Install a new southbound bus stop free of through traffic south of the intersection of Kaiwharawhara Road

f. Provide up to nine short-stay on-street car parks adjacent to iKids and Early Years Childcare Centres

g. Widen the Kaiwharawhara Stream shared path bridge

h. Resume the road corridor in the space that is currently part of the Spotlight car park to improve the shared path width in this location

i. Request officers to investigate integrating egress from the Spotlight site into the existing traffic light controlled intersection at Hutt Road – Kaiwharawhara Road"

j. Improve the surface condition of the shared path between the Caltex Fuel Stop and Aotea Quay

k. Investigate, design and implement *safety and* speed controls at business egress points where it is beneficial to do so *including investigation of active advance warning signs*[81]

l. Investigate demand and alternative options for current shared path car parking, including but not limited to options around the Ngauranga Train Station

m. Consider narrowing vehicle lanes to provide wider shoulders for on-road cyclists either side of the Hutt Road and implement if beneficial

n. Traffic signal improvements at Ngauranga, including improvements for buses and pedestrians

o. Agree to removal or rearrangement of particularly hazardous or obstructive parking particularly where it obstructs visibility of and from business entrances

Short/Medium – subject to completion of l above

p. Relocate shared path car parking to alternative off-road locations, or

q. Create southbound clearway for restricted on-road parking in off-peak periods

When the Petone to Ngauranga cycleway improvement is consented and fully funded

r. Implement improvements to the cycleway between Caltex and Ngauranga

s. Agree that further work needs to be done to deliver bus priority on Hutt Road, alongside bus and cycleway planning for Thorndon Quay, in advance of the implementation of the new Greater Wellington bus network in early 2018, noting that priority may also be given to other vehicle classes for example freight and high occupancy vehicles

~~*When the southbound motorway capacity and port access to the ferry terminals is improved (an additional trigger point will be also providing for enhanced bus priority through Thorndon Quay).*~~

~~t. Implement improved bus priority~~

In addition, the following resolutions were made:

1. Notes that consideration for future stages of the Hutt Road Cycleway, including the parking review and possible options including bus prioritisation, along with a detailed engagement plan, will be presented to the Committee for endorsement prior to any further implementation beyond Stage 1 works *(Resolution 4)*

2. Request NZTA to explore the legal definitions and enforcement issues involved in a combined bus, freight and multi-occupant vehicle priority lane *(Resolution 8)*

3. Request officers work with NZTA, GWRC and Kiwirail to explore development opportunities adjacent to Ngauranga Station, including Park & Ride for both directions *(Resolution 9)*

[81] The NZ Transport Agency Quality Assurance Review notes that addressing crashes with northbound cyclists will require careful attention to design detail and may require trials of innovative treatments

9.7.1 Great Harbour Way

Councillors unanimously supported aspirations for the Great Harbour Way for this section of the corridor and made the following resolutions in relation to this:

1. Reconfirms Council's medium term aspiration to the creation of a harbour-side facility between Ngauranga and Aotea Quay noting that this does not meet the travel needs of people from Khandallah and Ngaio, will be expensive, and is reliant on decisions on a range of other larger projects which Council is engaged with including likely changes to Port access, Interisland line area layout, and southbound motorway capacity and resilience. *(Resolution 3)*
2. Agree to expedite discussions between NZTA and other key stake holders to determine an additional off road cycle-way design from Ngauranga to the City, (with a view to completing an iconic off road cycleway from Petone to Miramar), including the associated timing and costs, and that options for alternative designs, timings and costs are received by this Committee, as a matter of priority, to inform current program and Urban Cycle Way Fund spending priorities *(Resolution 6)*
3. Agree to commence more detailed investigations of the Great Harbour Way section along Oriental Bay to the Eastern Suburbs with a view to securing Government funding by 2018 as per the requirements of the Urban Cycleway Fund, including how the current program could be adjusted to achieve this, and that this is also presented to Committee also as a matter of priority *(Resolution 7)*
4. Note the Port Access is a priority in the Regional Land Transport Plan and the current project planning includes consideration of walking and cycling access and encourage all agencies to enable the Ngauranga to City part of the Great Harbour Way *(Resolution 10)*
5. Agree that Council regards the whole GHW through from Pencarrow to Owhiro Bay as an important project for commuting, local recreation and significant tourism opportunities *(Resolution 11)*

Part D – Delivery and Planning

This section of the report will include the specific details of the delivery of the proposals for the Hutt Road section (Section 1) including the scheme design and the results of a safety audit and how any recommendations are being addressed.

It is not envisaged that any detail regarding the timing for delivery of the Aotea Quay to the CBD section (Section 2) will be include at this stage and an updated report will be issued at a later time.

10. Current Programme

10.1 Action Plan

Table 10 sets out the key pieces of work being progressed as a result of the resolutions of the Transport and Urban Design Committee on 19 May 2016, including timeframes, estimated costs and progress made towards these.

Table 10 Hutt Road Programme (as at 28 October 2016)

TUD resolution	Description	Timeframe (2016)	Cost
2a	**Street Lighting** A construction contract for street lighting has been awarded and LED lights have been ordered. Removal of old lights will be undertaken as part of this contract	Installation of new lights Oct-Dec 2016 Removal of old light poles Jan-Feb 2017	$870k
2b-f, h, j, k, m, o	**Detailed Design (including safety audit)** Including bus stop changes, Childcare Centre car parking, path upgrade and shoulder widening	Detailed Design to be completed Dec 2016 Construction to commence Mar 2017 and will tentatively be completed Aug 2017	Approx. $1.6 million TBD by engineers estimate through Detailed Design
2g	**Kaiwharawhara Bridge widening** Widening of bridge on path, immediately south of Spotlight entry/exit	Detailed Design underway Construction to commence Aug 2017 (dependent	Approx. $900k TBD by engineers estimate through Detailed Design

		on timeframes to move services)	
2i	**Spotlight entry/ exit integrated into signalised intersection** Possible effects to be included in PT report – modelling the effect of low demand from Spotlight as a fourth leg	Report to TUD 11 Aug – see below	$4160 for study to inform TUD report, plus staff costs
2l & 9	**Parking surveys** Business and Intercept surveys underway Possibilities for off-street parking areas being investigated	Report to TUD 11 Aug – see below Report to Council's Executive Leadership Team by Feb 2017	$7500 for survey to inform TUD report, plus staff costs
2n	**Ngauranga traffic signal improvements** Separate commission, design being undertaken by BECA as part of the Smart Motorway project, NZ Transport Agency leading, with detailed input from the Council	Construction to commence April 2017	TBD – could be up to $1 million
2s & 8	**Bus priority planning** Options for managing expected bus increase as part of Future Bus Network and NZTA clarification on use of special vehicle lanes	Report to TUD 11 Aug – see below	Staff costs only
3, 6, 10 & 11	**Great Harbour Way (Hutt Road section)** Feasibility Study of design options including discussions with key stakeholders, costs & timeframes	Report to TUD 11 Aug – see below	$20k
7 & 11	**Great Harbour Way (Miramar to CBD)** Feasibility Study of design options, costs & timeframes	Report to TUD 11 Aug – see below	$100k
TOTAL			**$4+ million**

10.1 Transport and Urban Development Committee 11 August

10.1.1 Hutt Road Cycleway Report Back

At its 19 May 2016 meeting (see Section 9.7) the TUD Committee requested that Officers undertake additional work in relation to the following areas:

- Potential to signalise the Spotlight driveway (TUD Resolution 2i)
- Results of the parking demand survey (TUD Resolution 2l & 9)
- Potential for bus improvements ahead of the new Greater Wellington bus network (TUD Resolution 2s & 8)

Officers reported back on these areas at the TUD Committee meeting on 11 August 2016 and made the following recommendations which were agreed to by the Committee.

Spotlight driveway

Officers considered the potential to signalise the Spotlight driveway and found that while there may be some safety benefits, the loss of parking and the overall delay to all road users was significant. As a result, Officers recommended that the Council does not pursue this proposal further at this time.

Parking Demand Surveys

Surveys that were undertaken to better understand the demand for parking along Hutt Road found that 40% of those that currently park on Hutt Road then continue on by other means into the city. Officers will continue to investigate how to accommodate the 60% of parkers that work on the Hutt Road and will report back to Council's Executive Leadership Team by Feb 2017.

Bus Improvements

Analysis of options for improvements to public transport for the route between Ngauranga and the Lambton Terminus has been undertaken. Results of the analysis show that there is little that can be done in terms of lane reallocation at this time on Hutt Road without having a significant detrimental effect on the performance of this corridor for general traffic. Providing increased south bound lane capacity on the motorway will deliver a reduction in general traffic flows to the Hutt Road. As such, it will be possible to introduce improvements for public transport along parts of this corridor once capacity has been delivered by the NZ Transport Agency on the Motorway. Thorndon Quay however does provide opportunities for public transport that should be explored in concert with planning for bikes in the Thorndon section.

10.1.2 Refresh Programme

At the 11 August meeting, Officers also presented a refreshed WUCP (as set out in detail in Section 2.4) which included commentary on Great Harbour Way between the CBD and Ngauranga (19 May TUD Resolution 3, 6, 10 & 11), as follows.

As part of the refresh process, the joint Council/NZTA team commissioned further work and updated its analysis of potential cycling corridors, including in response to the specific TUD Committee resolutions relating to the GHW (from Ngauranga to the City and the Airport to Te Kopua Reserve). In relation to the GHW part of the route near Centreport, officers are working alongside NZTA and Centreport as part of the Port Access and other related business cases/studies. Officers will workshop this corridor with the newly formed Council in November.

It is proposed that Council officers workshop with the new Council an outline of the overall programme and specifically workshop potential improvements in the Thorndon Quay and Aotea Quay area (including GHW options in this area) around November 2016. This workshop is anticipated to coincide with the completion of the port access and other related studies/business cases.

This Councillor workshop has been agreed to as a milestone that the Council needs to achieve by December 2016, to provide the NZ Transport Agency with confidence to recommend that the Minister of Transport approve the refreshed programme.

In relation to the Great Harbour Way between Miramar and the CBD (19 May TUD Resolution 7& 11) this was included as a new route in the refreshed WUCP, as set out in Table 1.

10.2 Communications and Engagement

The Hutt Road Cycleway Engagement and Consultation Plan is in the process of being updated and will set out the communications and engagement activities for the Delivery Stage and will include elements such as:

- Informing those who made submissions and attended open days, on the TUD decision
- How communications will be made when elements such as the new lighting have been installed, including via media releases, updating the Cycleways website and on the Project Boards (to be installed at locations along the path, including to the north by the Caltex service station, to the south by the Aotea Quay overbridge and possibly in the middle near Kaiwharawhara Road)
- Route promotion activities

11. Procurement Strategy

11.1 Professional Services Panel

To ensure the Council has adequate staffing resources and technical expertise to deliver the cycleway programme within the UCP funding timeframes, the Council has appointed six local consultancies to provide Design Team support and a number of external consultants have been appointed to Core Delivery Team roles, as follows:

- Senior Project Engineer
- Intermediate Project Engineer
- Graduate Project Engineer
- Technical Engineering Officer
- Project Administrator
- Programmer
- Business Case Funding Leader
- Business Case Author
- Cost Estimator
- Economic Analyst
- Planning Lead
- Active Transport Planner
- Engagement Support
- Engineering Design Manager/ Reviewer
- Construction/ Procurement Leader
- Contract Author
- Contract Supervision Personnel

11.2 Contractor Panel

The Council has developed a procurement and delivery model to engage a panel of suppliers to provide construction physical works for the cycleway development. It is proposed to establish a programme specific panel of physical works contractors from which construction activities will be procured and carried out.

The Wellington construction market is buoyant at present and the development of a panel is considered to provide a better value for money outcome and improved programme delivery, through a higher level of engagement with the supply market.

In early November 2016, the Council will invite interested construction companies (through notification on GETS[82]) to submit proposals to be selected to form a panel of providers. Suppliers will be requested to tender rates based on a schedule of quantities covering works that would typically be encountered in the delivery of cycleway construction works. The panel is expected to short list a number of suppliers based on a Price Quality Evaluation (using typical

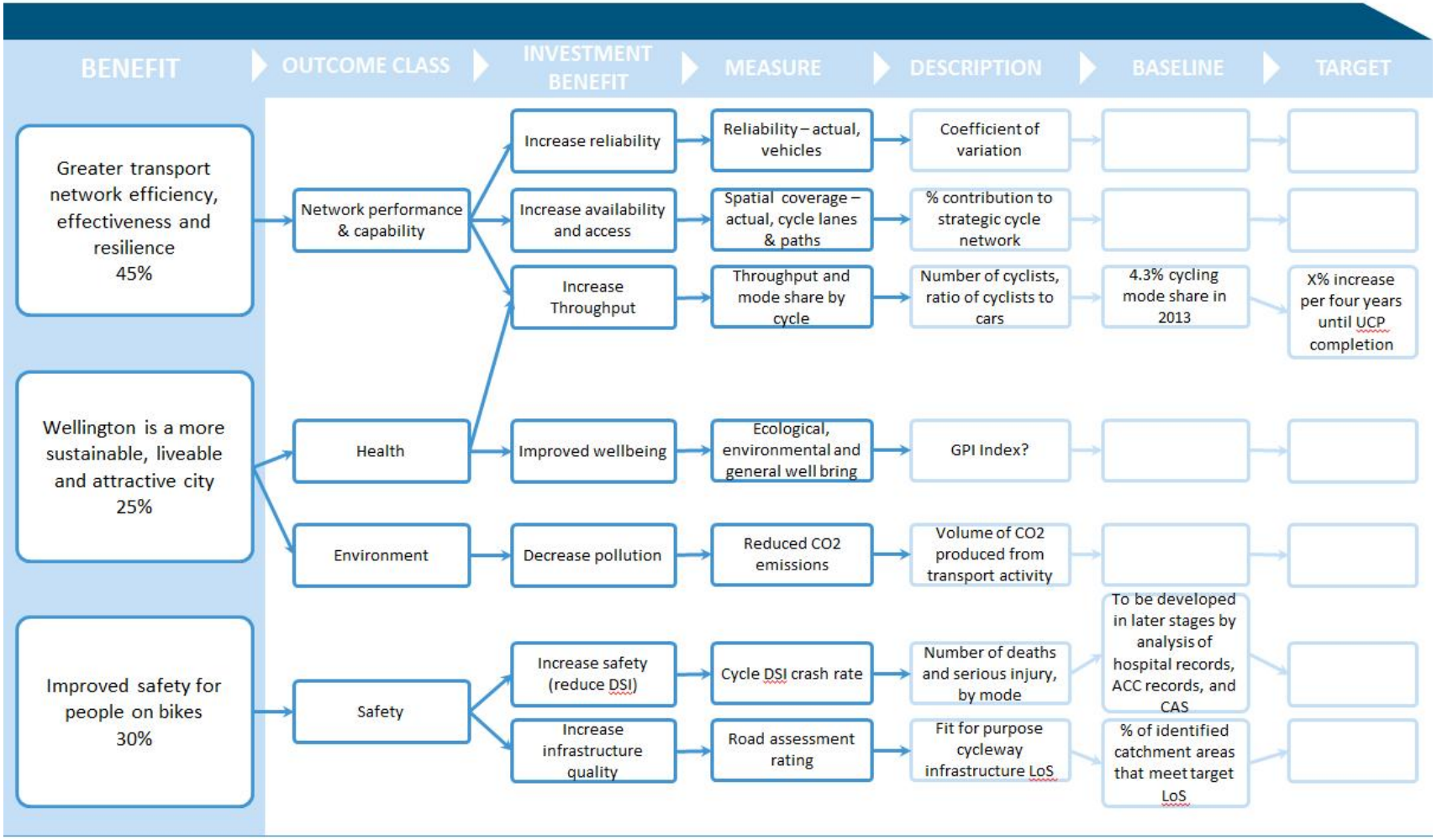
[82] Government Electronic Tenders Service

schedule of quantities) who will be offered individual packages of works on the basis of final evaluation position, resource availability and, as the panel progresses, performance.

The NZ Transport Agency's has approved the proposed Contractor Panel approach.

Appendix A – Benefits Map

Benefit Map

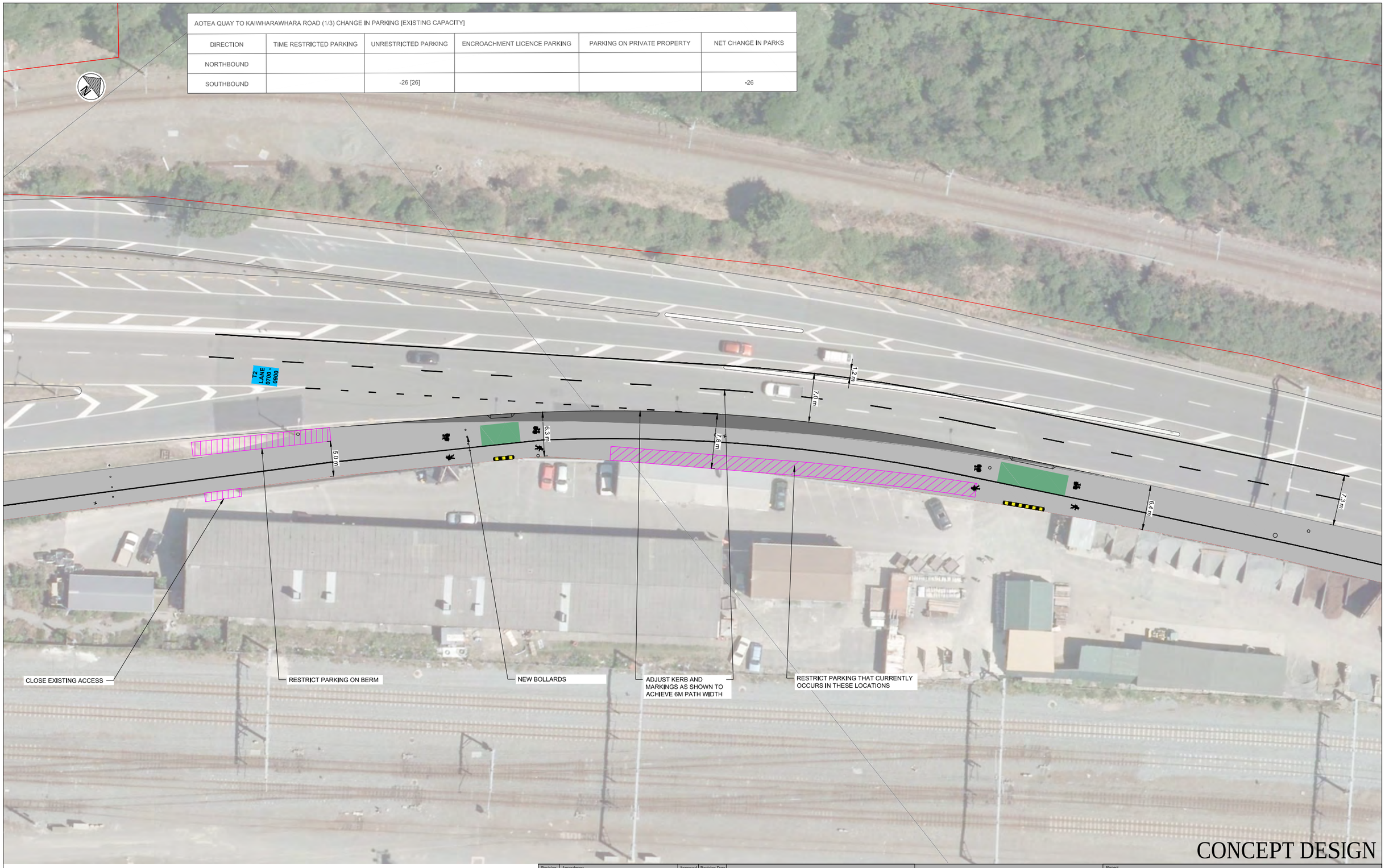

BENEFIT
OUTCOME CLASS
INVESTMENT BENEFIT
MEASURE
DESCRIPTION
BASELINE
TARGET
Greater transport network efficiency, effectiveness and resilience 45%
Wellington is a more sustainable, liveable and attractive city 25%
Improved safety for people on bikes 30%
Network performance & capability
Health
Environment
Safety
Increase reliability
Increase availability and access
Increase Throughput
Improved wellbeing
Decrease pollution
Increase safety (reduce DSI)
Increase infrastructure quality
Reliability – actual, vehicles
Spatial coverage – actual, cycle lanes & paths
Throughput and mode share by cycle
Ecological, environmental and general well bring
Reduced CO2 emissions
Cycle DSI crash rate
Road assessment rating
Coefficient of variation
% contribution to strategic cycle network
Number of cyclists, ratio of cyclists to cars
GPI Index?
Volume of CO2 produced from transport activity
Number of deaths and serious injury, by mode
Fit for purpose cycleway infrastructure LoS
4.3% cycling mode share in 2013
To be developed in later stages by analysis of hospital records, ACC records, and CAS
% of identified catchment areas that meet target LoS
X% increase per four years until UCP completion

Appendix B Parking Removal Proposals

Appendix G: Engineering Drawings

AOTEA QUAY TO KAIWHARAWHARA ROAD (1/3) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		-26 [26]			-26



NOTES:
1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

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Wellington 6144
New Zealand

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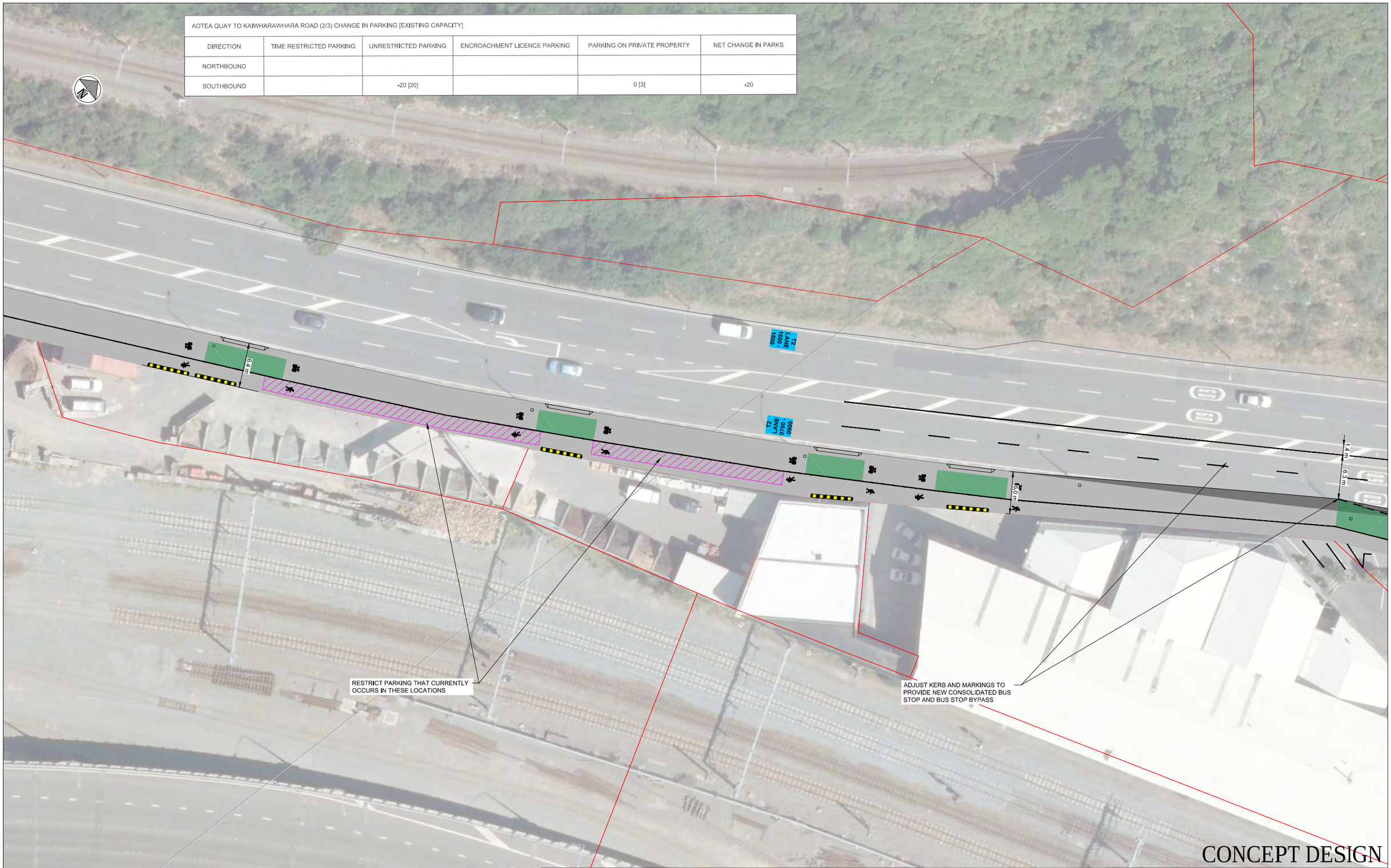
AOTEA QUAY TO KAIWHARAWHARA ROAD (2/3) CHANGE IN PARKING [EXISTING CAPACITY]					
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		-20 [20]		0 [3]	-20



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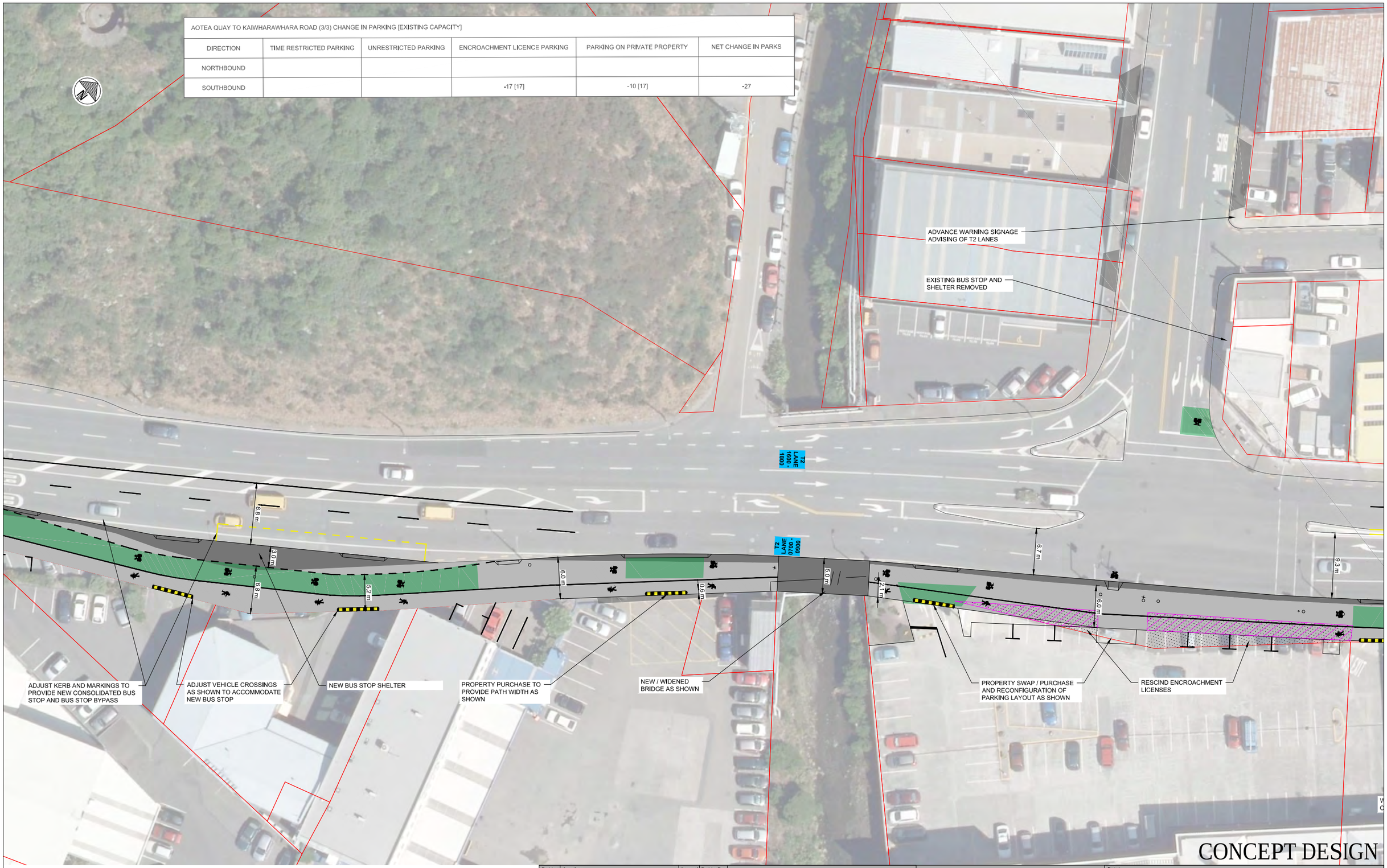
AOTEA QUAY TO KAIWHARAWHARA ROAD (3/3) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND			-17 [17]	-10 [17]	-27



NOTES:
1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
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3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

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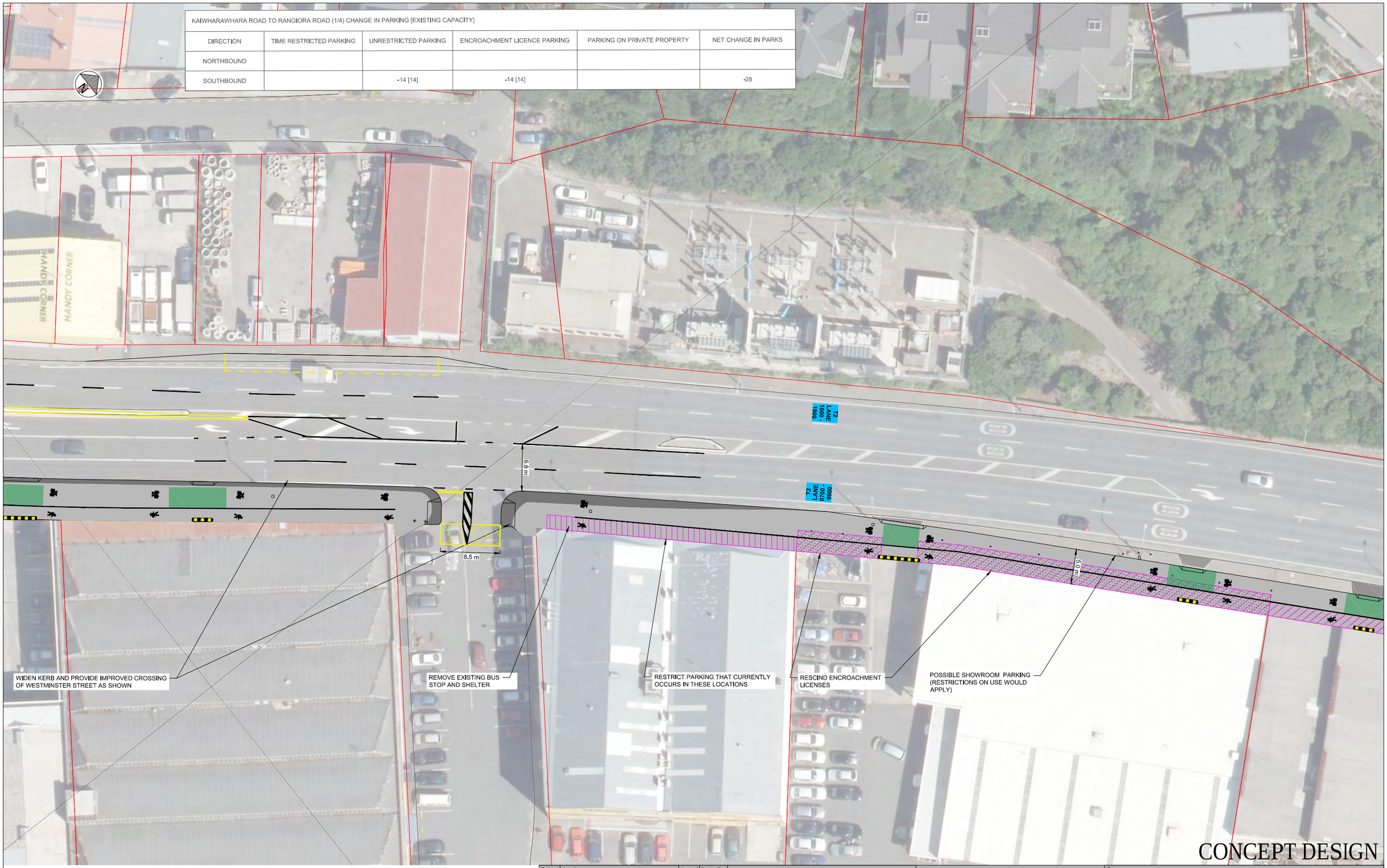
KAIWHARAWHARA ROAD TO RANGIORA ROAD (1/4) CHANGE IN PARKING [EXISTING CAPACITY]					
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		-14 [14]	-14 [14]		-28



NOTES:
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2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

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KAIWHARAWHARA ROAD TO RANGIORA ROAD (2/4) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		-28 [28]			-28

NOTES:
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2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
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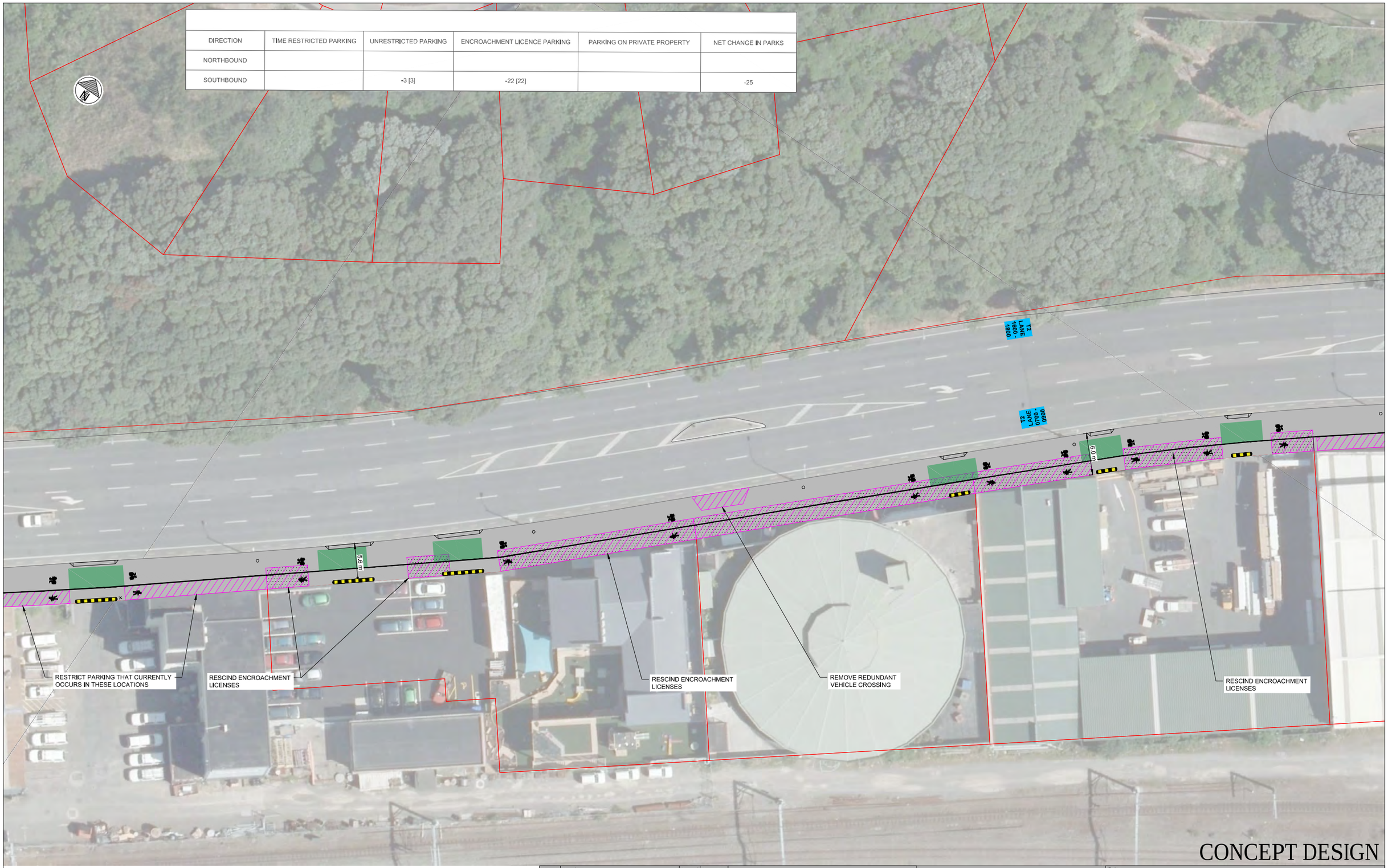
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		-3 [3]	-22 [22]		-25



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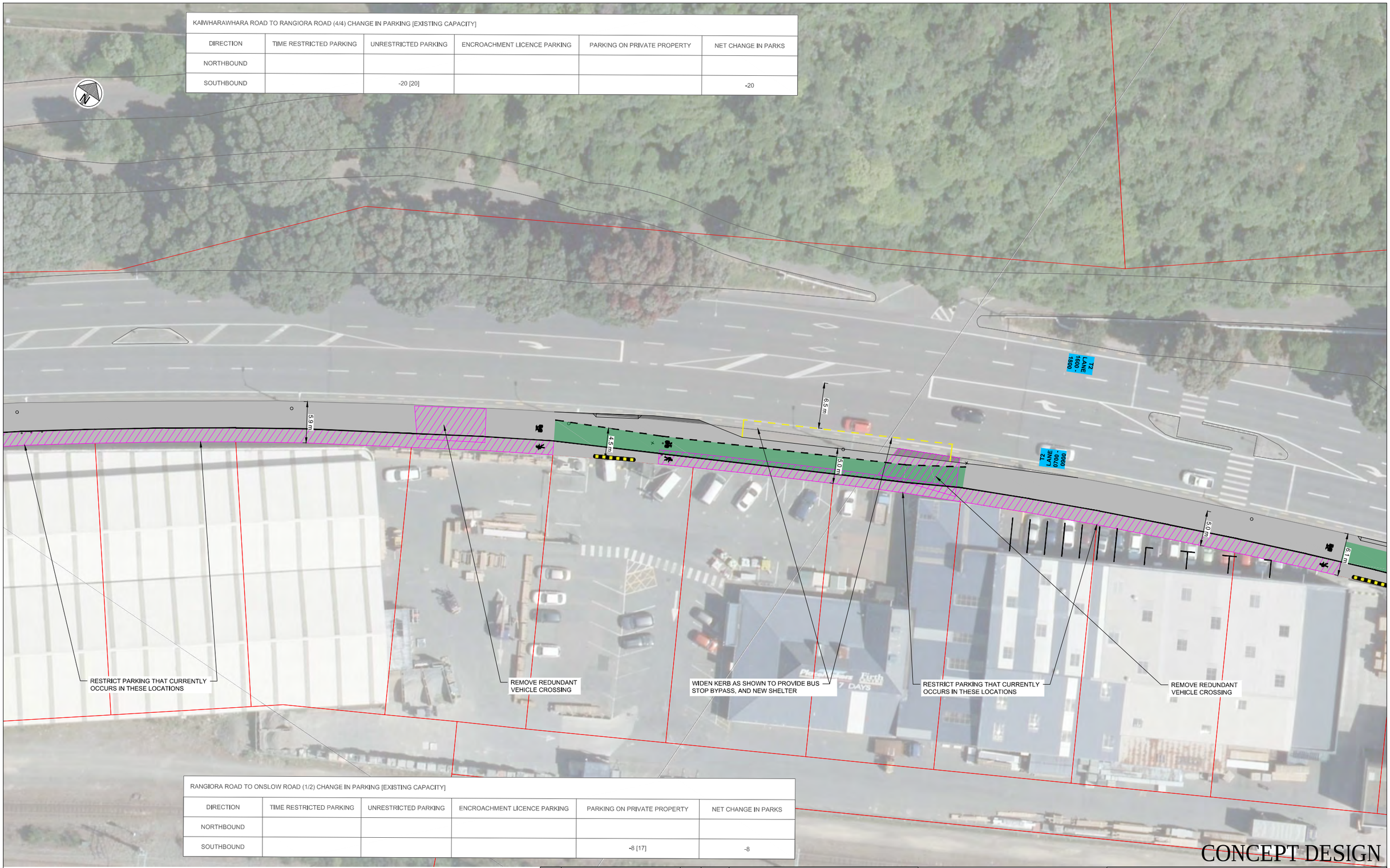
KAIWHARAWHARA ROAD TO RANGIORA ROAD (4/4) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		-20 [20]			-20



RANGIORA ROAD TO ONSLOW ROAD (1/2) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND				-8 [17]	-8

NOTES:
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2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

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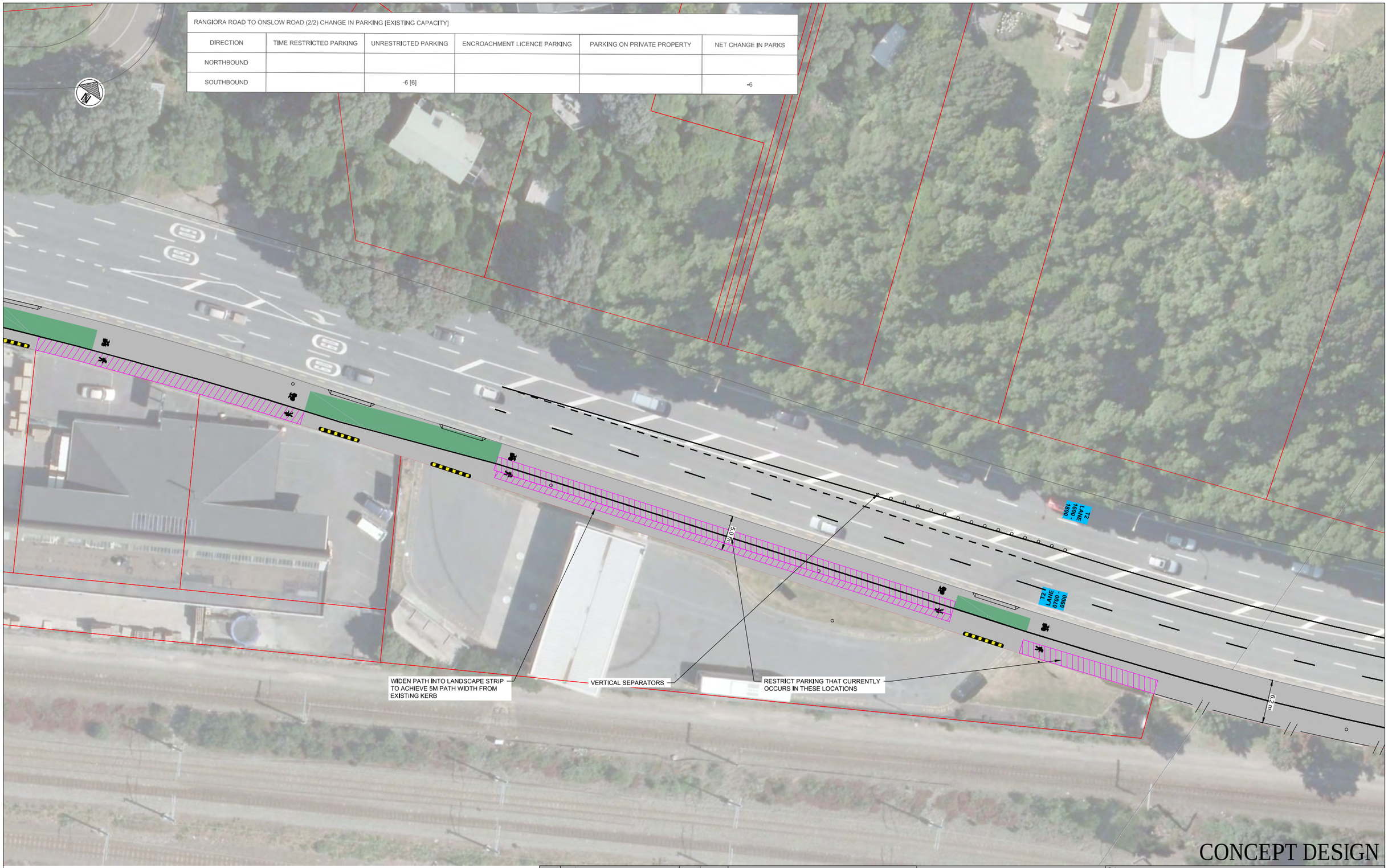
Drawing No.	Sheet. No.	Revision
5-C2953.00_C120	07	A

RANGIORA ROAD TO ONSLOW ROAD (2/2) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		-6 [6]			-6



NOTES:
1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

Revision	Amendment	Approved	Revision Date
A	CONCEPT DESIGN	-	27/01/2016

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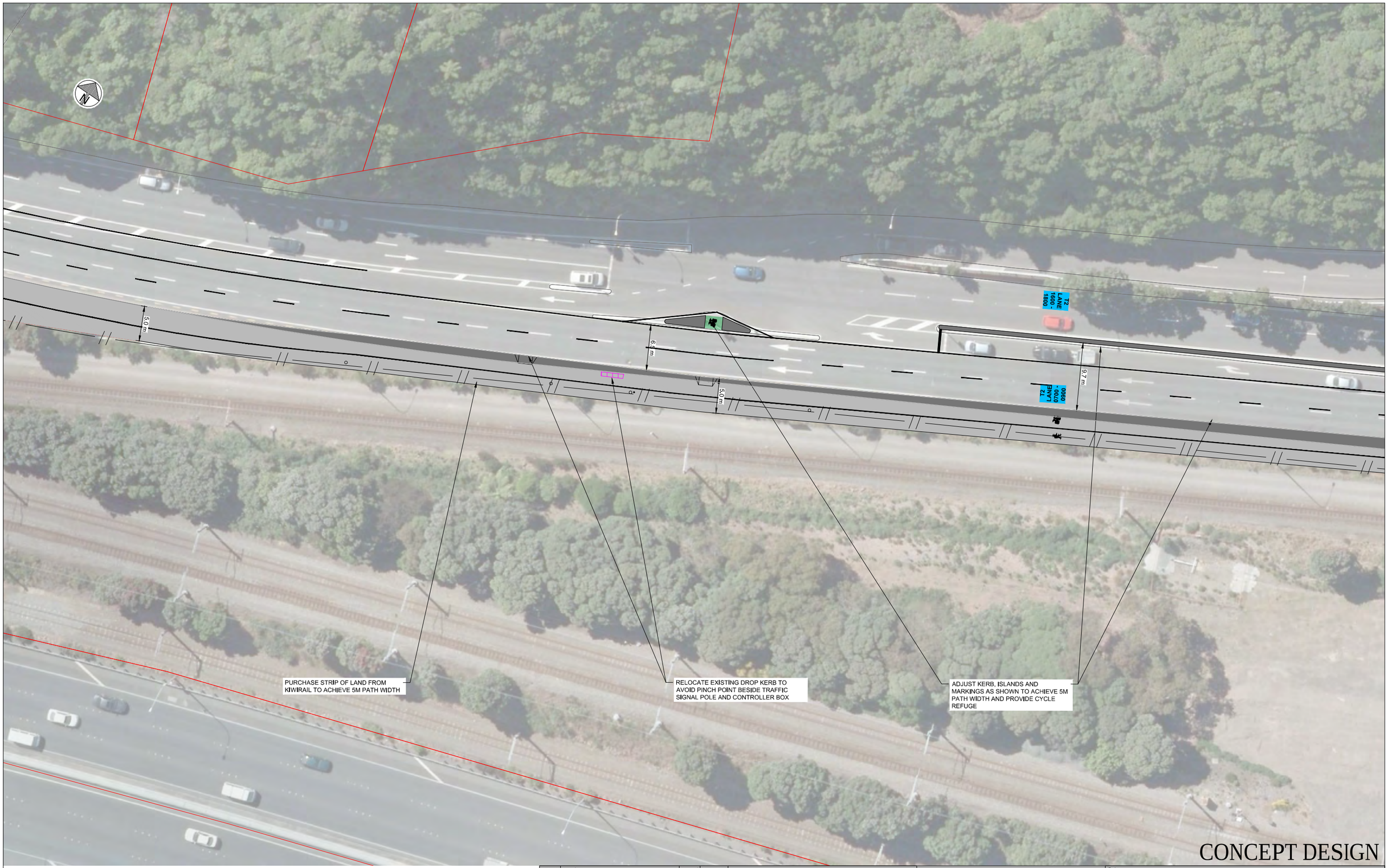
Drawn	Designed	Approved	Revision Date
ST	ST	ES	27/01/2016

Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION A

Drawing No.	Sheet. No.	Revision
5-C2953.00_C120	08	A



300 mm 200 100 50 10 mm 0

NOTES:

1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

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Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION A

Drawing No.	Sheet. No.	Revision
5-C2953.00_C120	09	A

NOTES:

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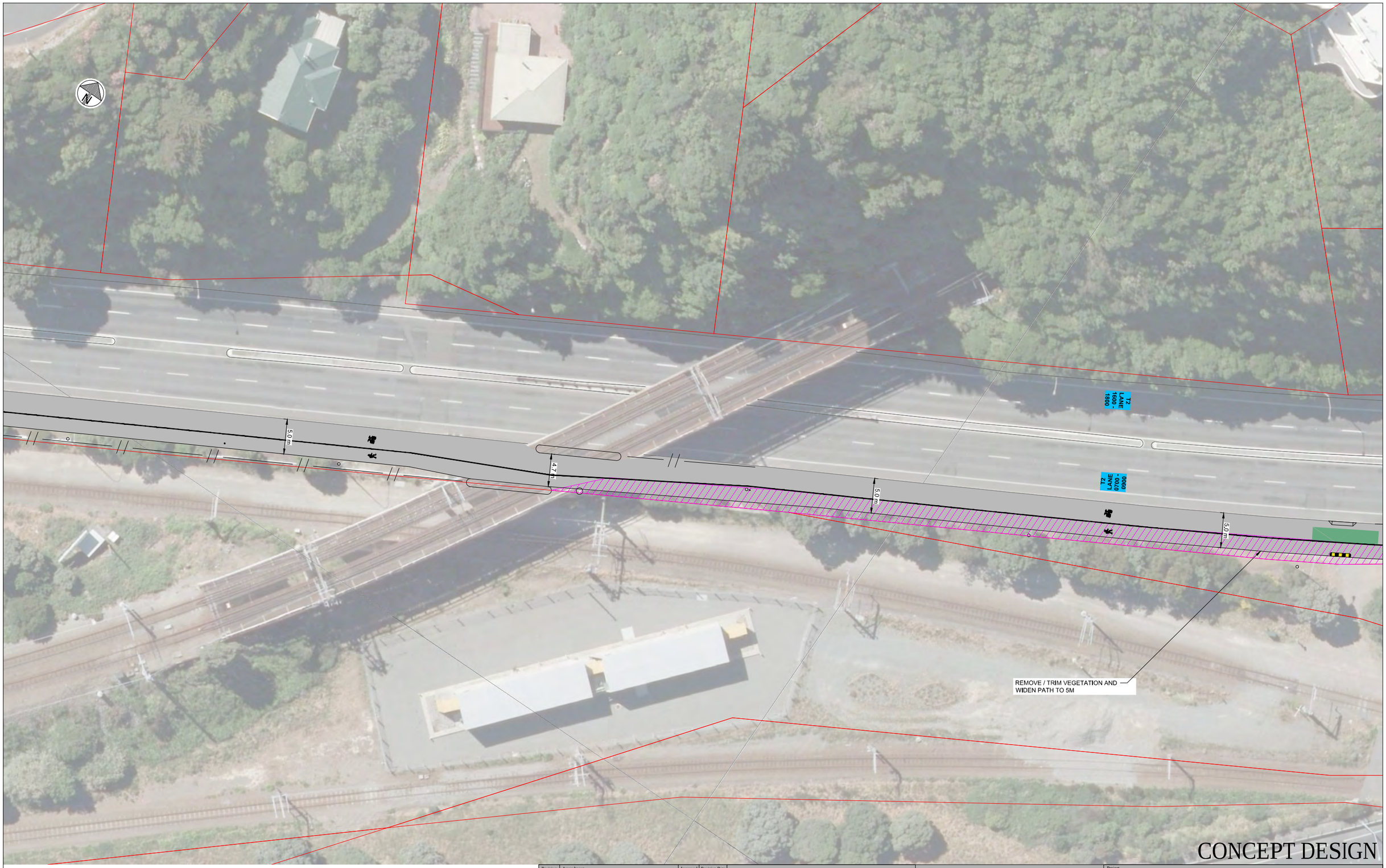
ST	ST	ES	27/01/2016

Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION A

Drawing No.	Sheet. No.	Revision
5-C2953.00_C120	10	A



CONCEPT DESIGN

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ST	ST	ES	27/01/2016

Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION A

Drawing No.	Sheet. No.	Revision
5-C2953.00_C120	11	A

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Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION A

Drawing No.	Sheet. No.	Revision
5-C2953.00_C120	12	A

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100
50
10 mm
0

NOTES:

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Project No.	Scale
5-C2953.00	1:250

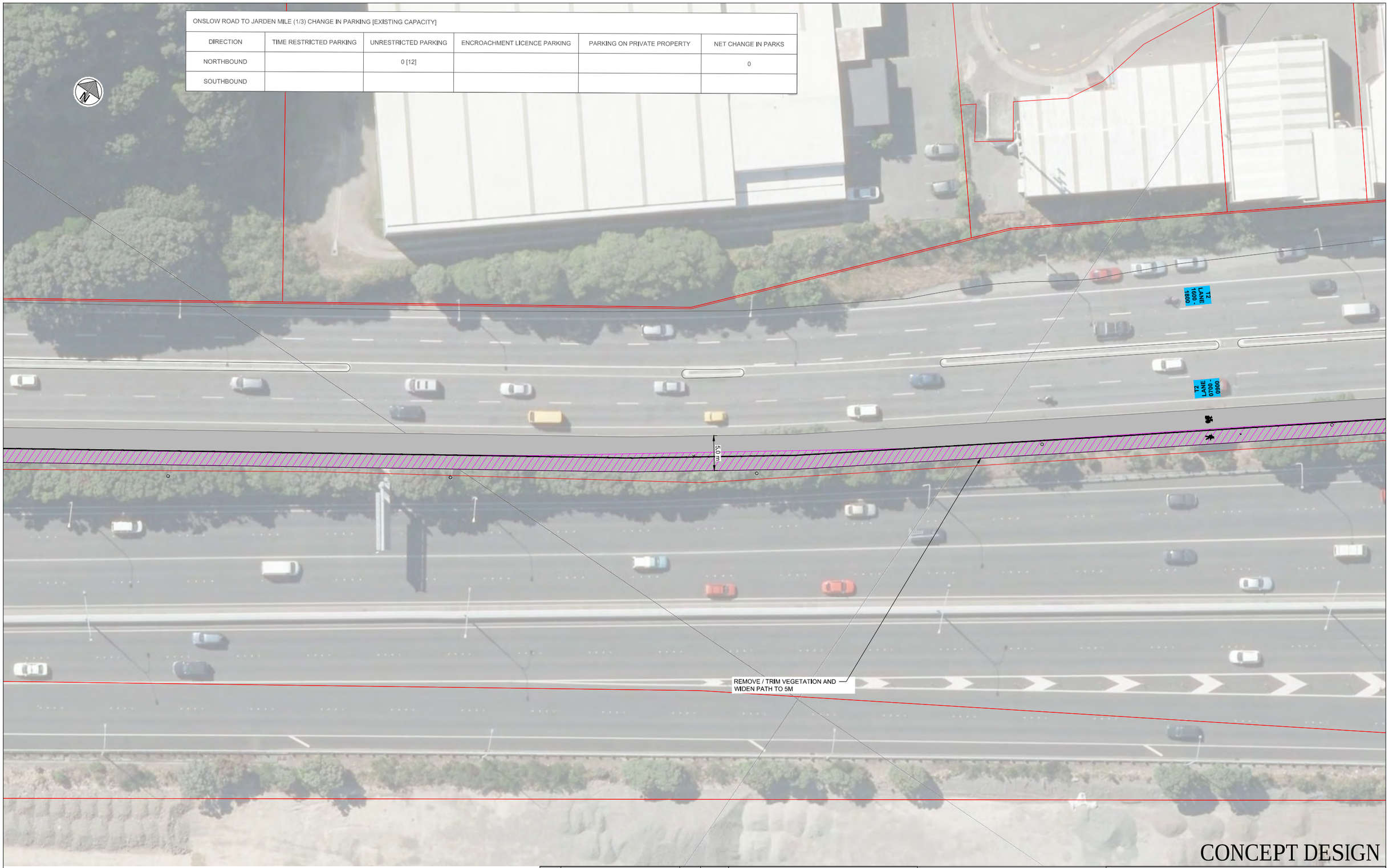
Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION A

Drawing No.	Sheet. No.	Revision
5-C2953.00_C120	13	A

ONSLOW ROAD TO JARDEN MILE (1/3) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND		0 [12]			0
SOUTHBOUND					



NOTES:
1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
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3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

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Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION A

Drawing No.	Sheet. No.	Revision
5-C2953.00_C120	14	A

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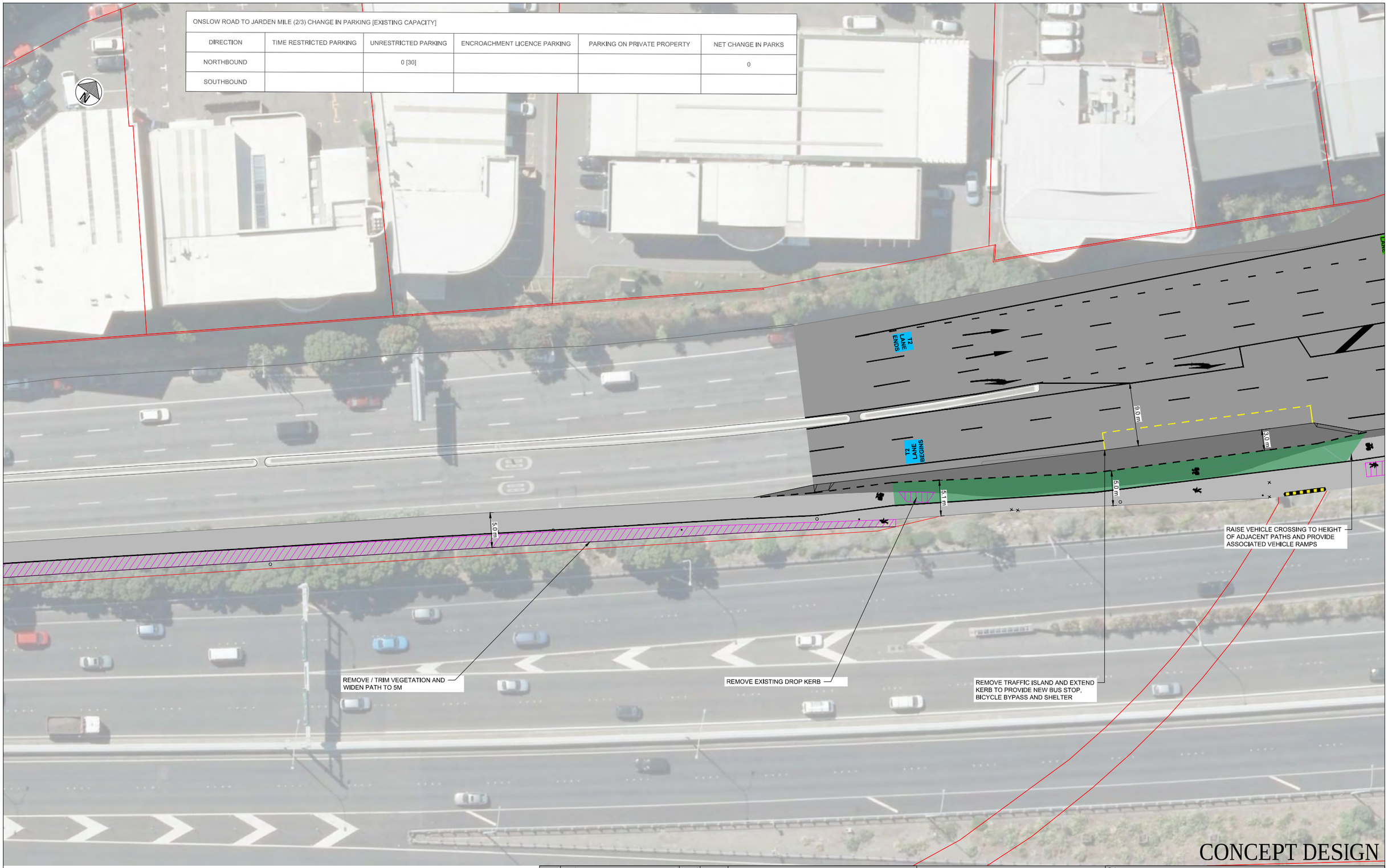
ONSLOW ROAD TO JARDEN MILE (2/3) CHANGE IN PARKING [EXISTING CAPACITY]					
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND		0 [30]			0
SOUTHBOUND					



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2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
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ST	ST	ES	27/01/2016

Project No.	Scale
5-C2953.00	1:250

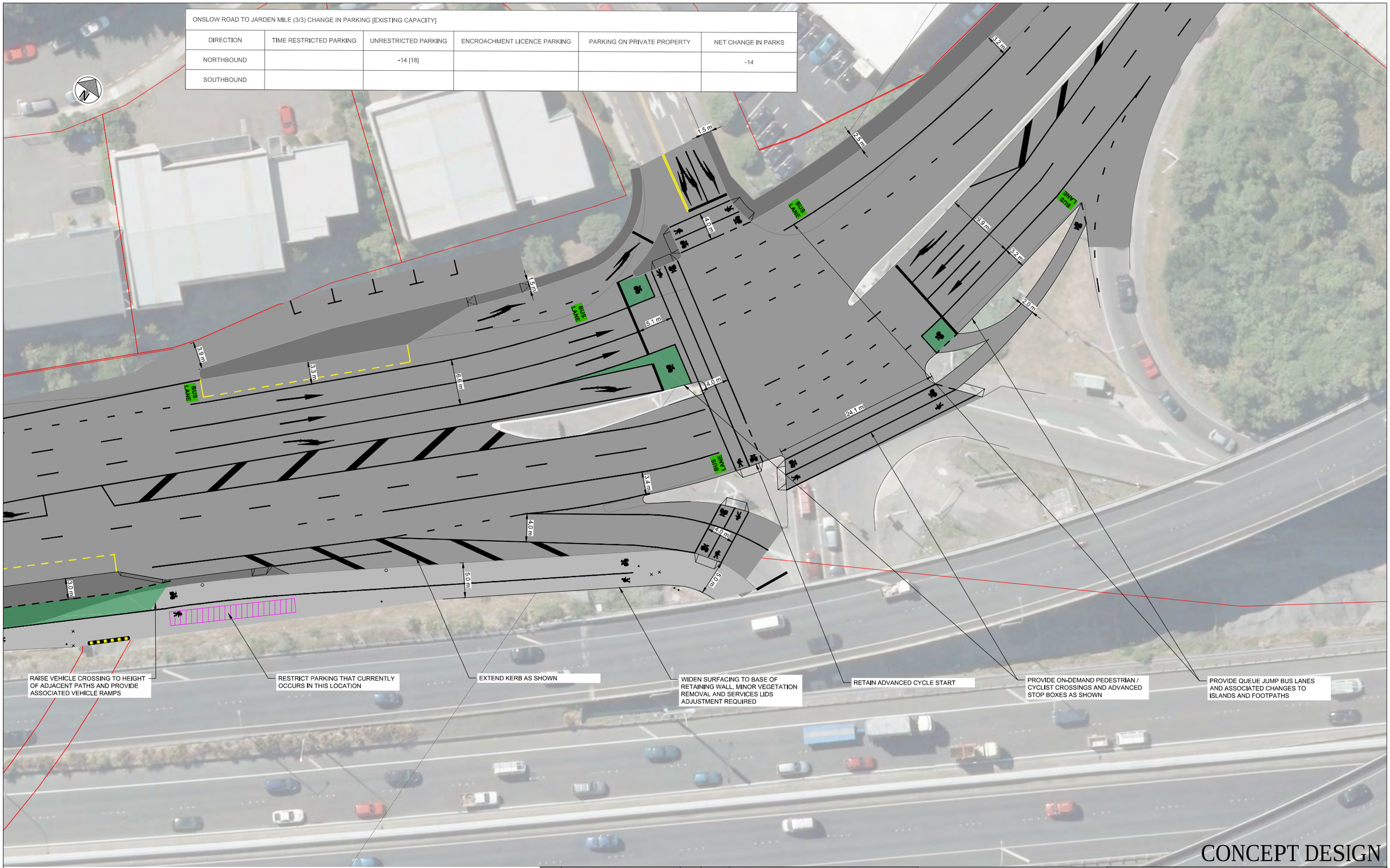
Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION A

Drawing No.	Sheet. No.	Revision
5-C2953.00_C120	15	A

ONSLOW ROAD TO JARDEN MILE (3/3) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND		-14 [18]			-14
SOUTHBOUND					



NOTES:
1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

Revision	Amendment	Approved	Revision Date
A	CONCEPT DESIGN	-	27/01/2016

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ST	ST	ES	27/01/2016

Project No.	Scale
5-C2953.00	1:250

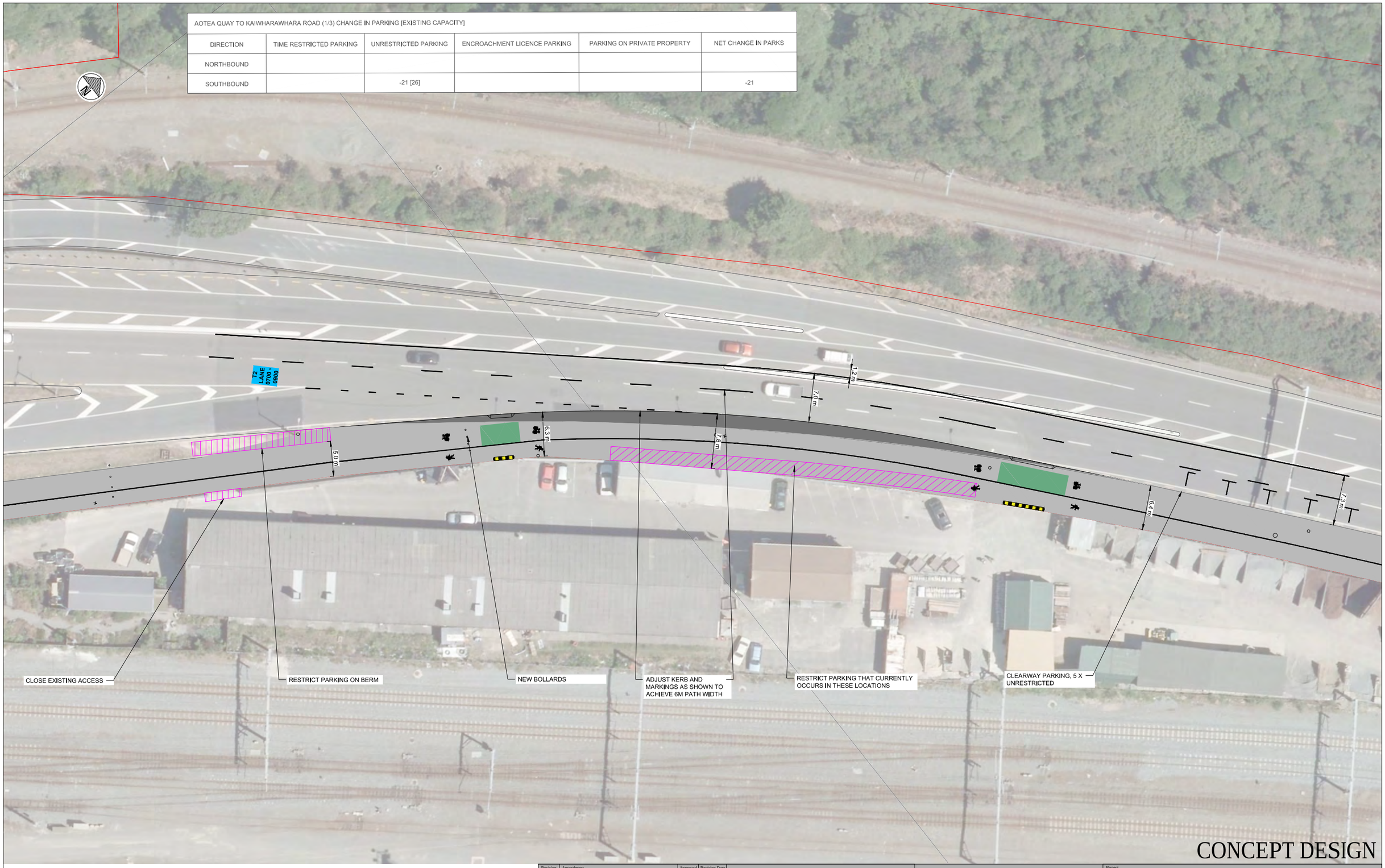
Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION A

Drawing No.	Sheet. No.	Revision
5-C2953.00_C120	16	A

AOTEA QUAY TO KAIWHARAWHARA ROAD (1/3) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		-21 [26]			-21



NOTES:
1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

Revision	Amendment	Approved	Revision Date
A	CONCEPT DESIGN	-	17/12/2015

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Drawn	Designed	Approved	Revision Date
ST	ST	ES	17/12/2015

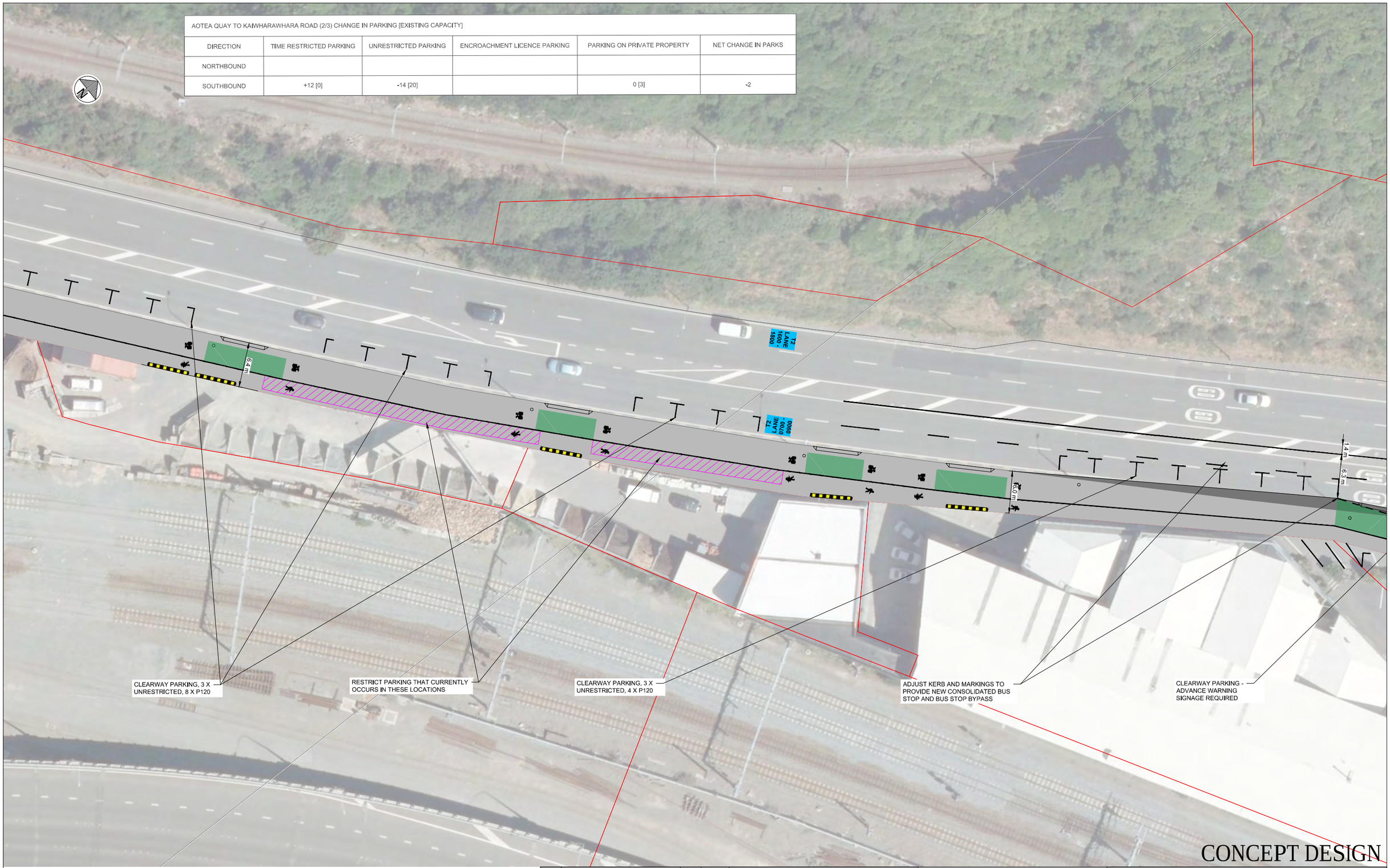
Project No.	Scale
5-C2953.00	1:250

Project: HUTT ROAD SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet: OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	01	A

AOTEA QUAY TO KAIWHARAWHARA ROAD (2/3) CHANGE IN PARKING [EXISTING CAPACITY]					
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND	+12 [0]	-14 [20]		0 [3]	-2



NOTES:
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2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
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Revision	Amendment	Approved	Revision Date
A	CONCEPT DESIGN	-	17/12/2015

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ST	ST	ES	17/12/2015

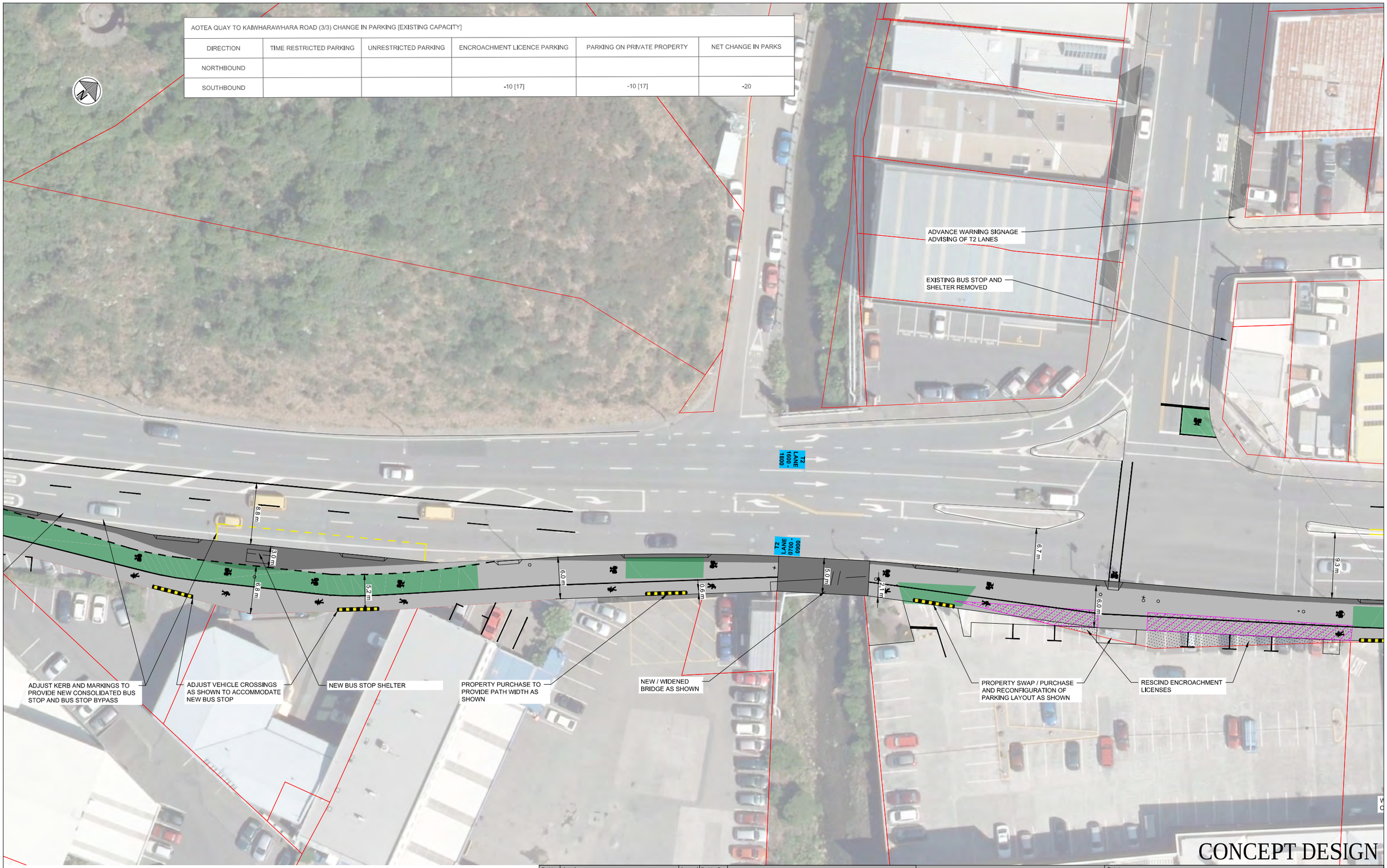
Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	02	A

AOTEA QUAY TO KAIWHARAWHARA ROAD (3/3) CHANGE IN PARKING [EXISTING CAPACITY]					
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND			-10 [17]	-10 [17]	-20



NOTES:
1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
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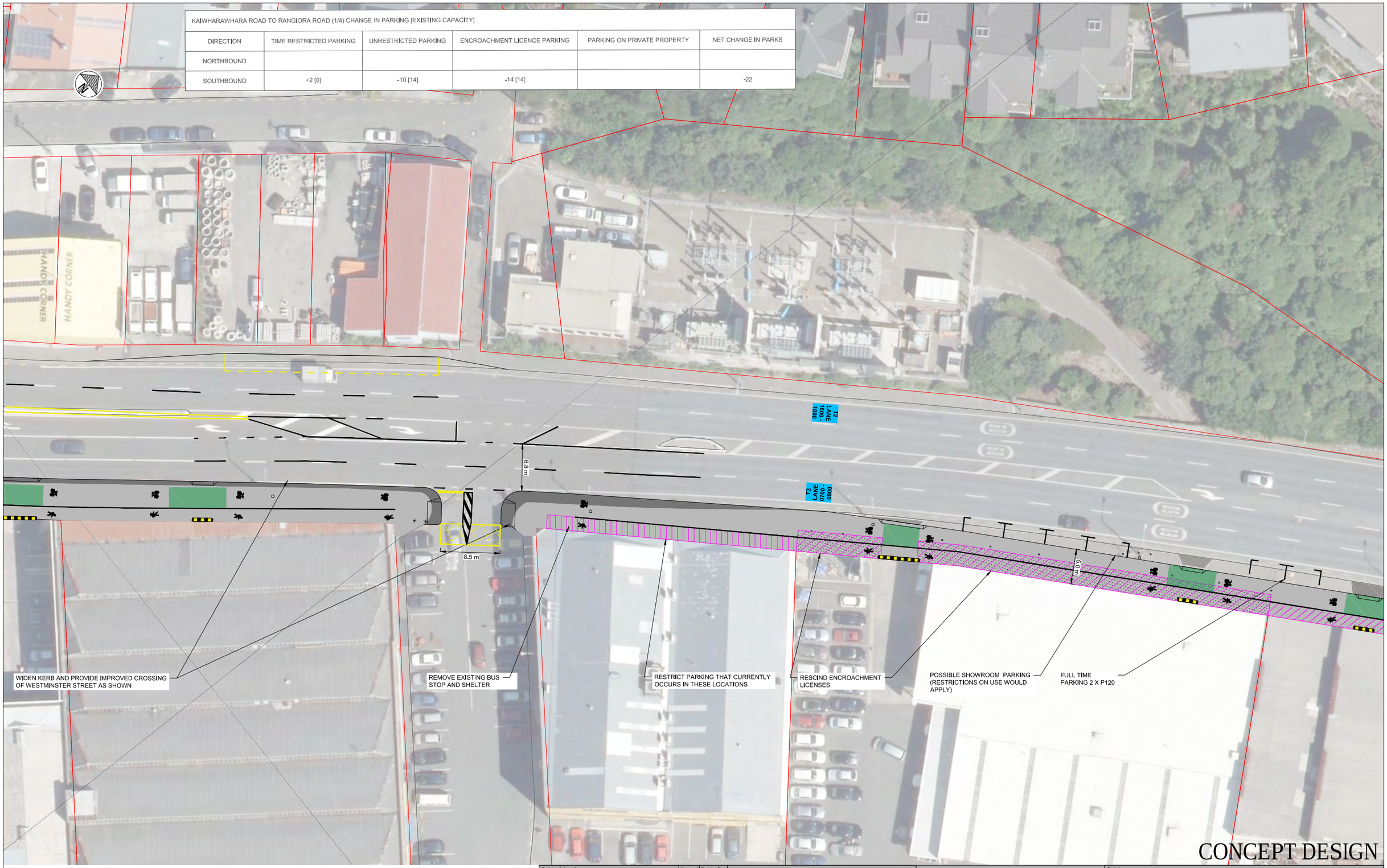
Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	03	A

KAIWHARAWHARA ROAD TO RANGIORA ROAD (1/4) CHANGE IN PARKING [EXISTING CAPACITY]					
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND	+2 [0]	-10 [14]	-14 [14]		-22



NOTES:
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Project No.	Scale
5-C2953.00	1:250

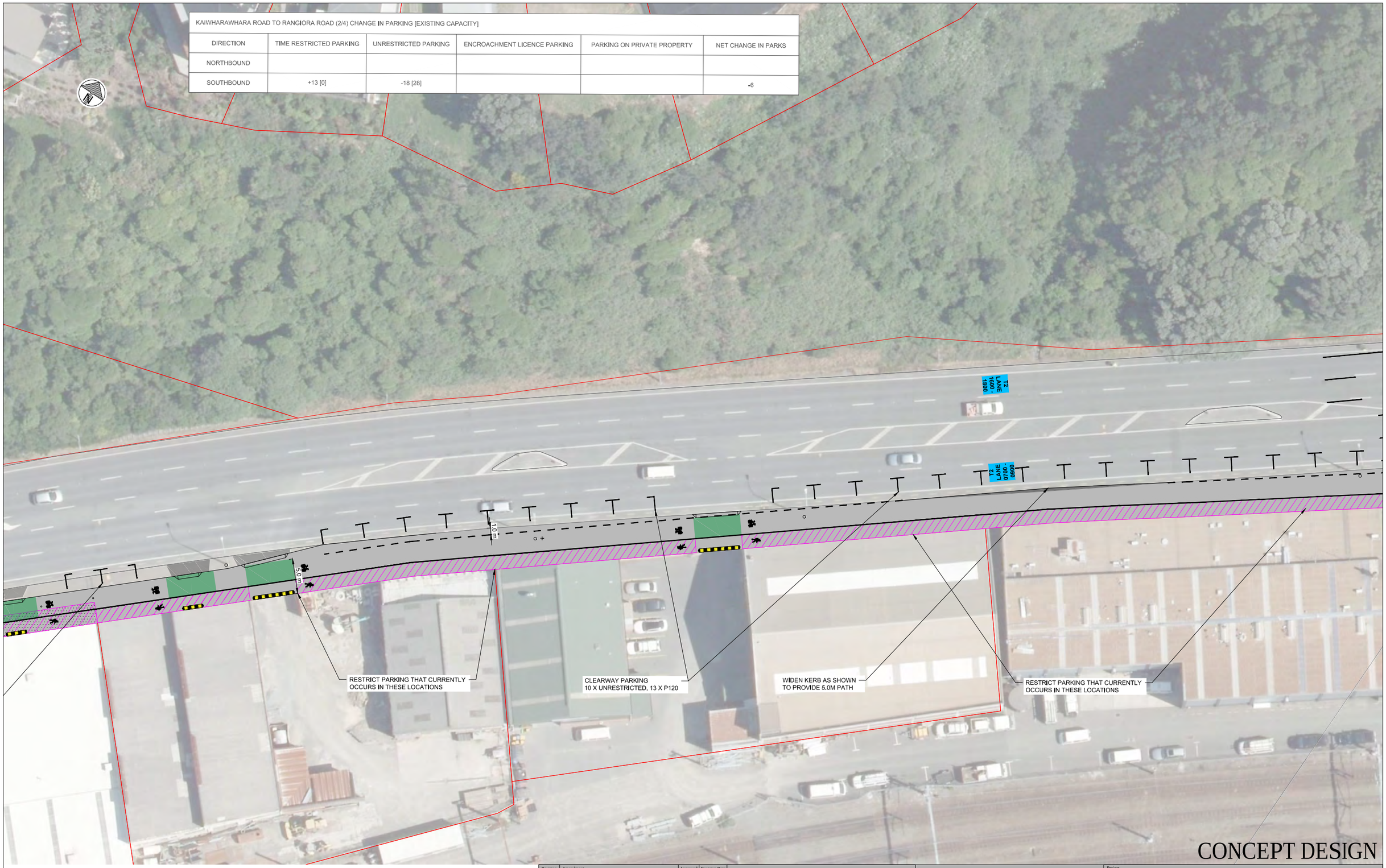
Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	04	A

KAIWHARAWHARA ROAD TO RANGIORA ROAD (2/4) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND	+13 [0]	-18 [28]			-6



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5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

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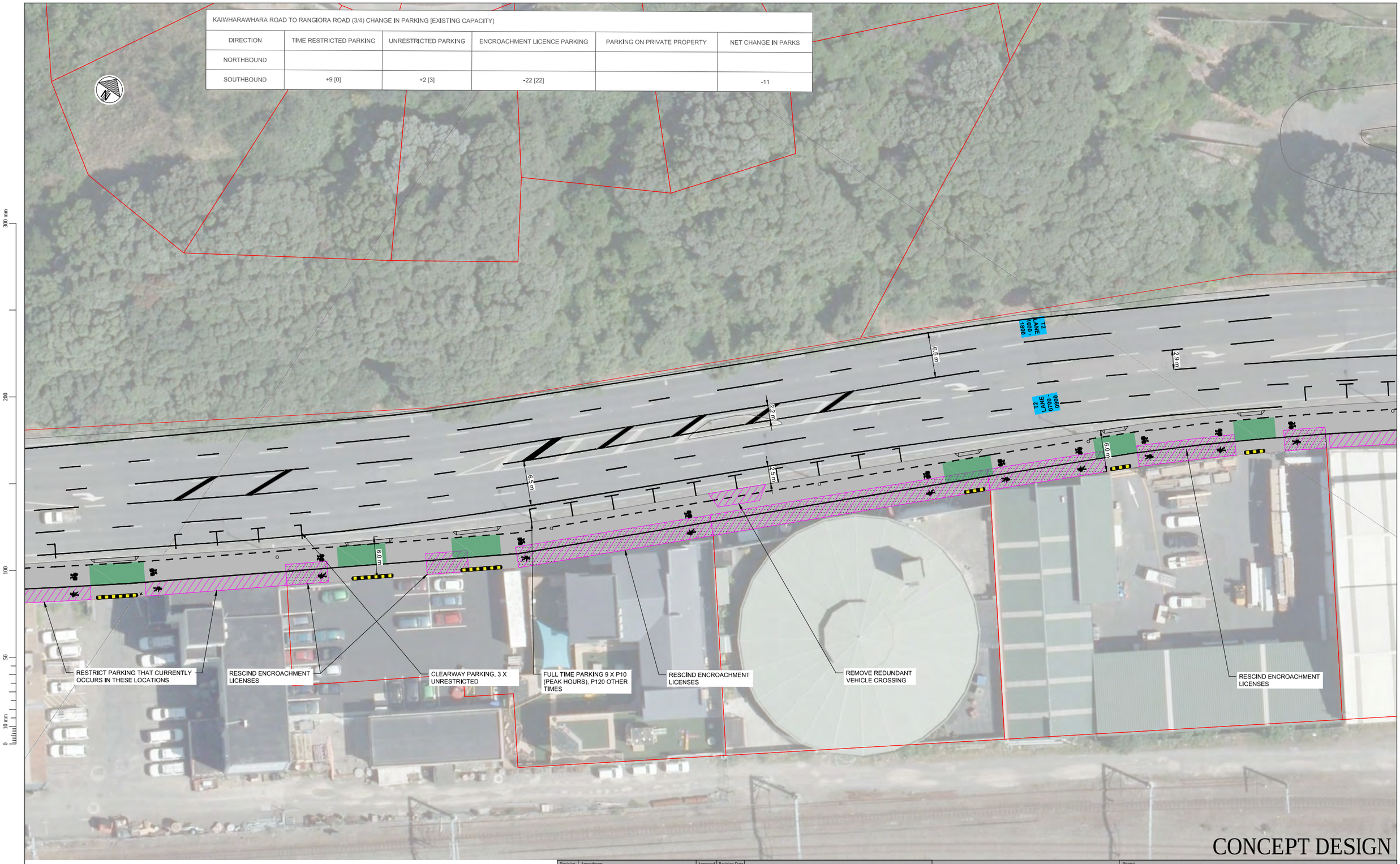
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	05	A

KAIWHARAWHARA ROAD TO RANGIORA ROAD (3/4) CHANGE IN PARKING [EXISTING CAPACITY]					
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND	+9 [0]	+2 [3]	-22 [22]		-11



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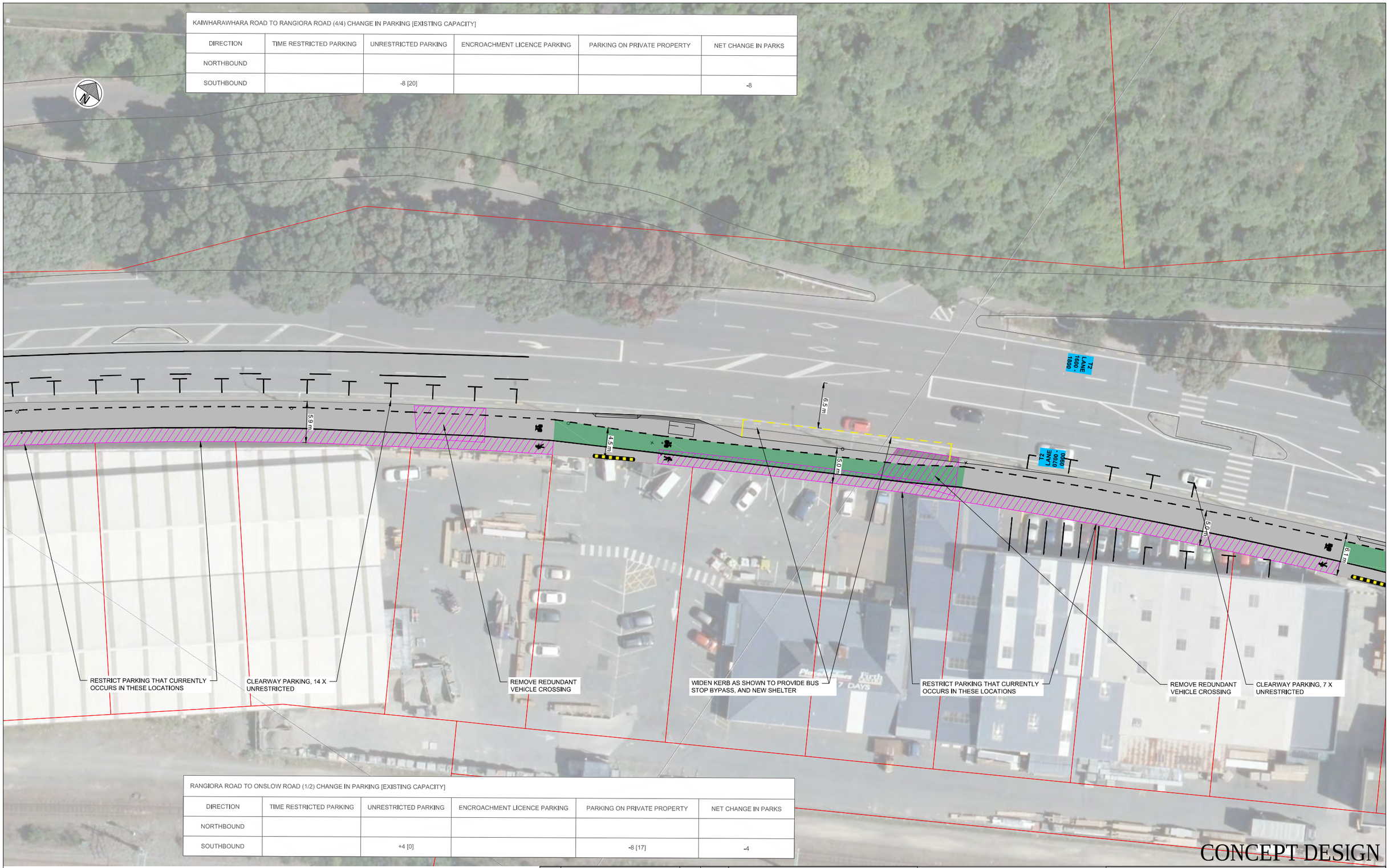
Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	06	A

KAIWHARAWHARA ROAD TO RANGIORA ROAD (4/4) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		-8 [20]			-8



RANGIORA ROAD TO ONSLOW ROAD (1/2) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		+4 [0]		-8 [17]	-4

CONCEPT DESIGN

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Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

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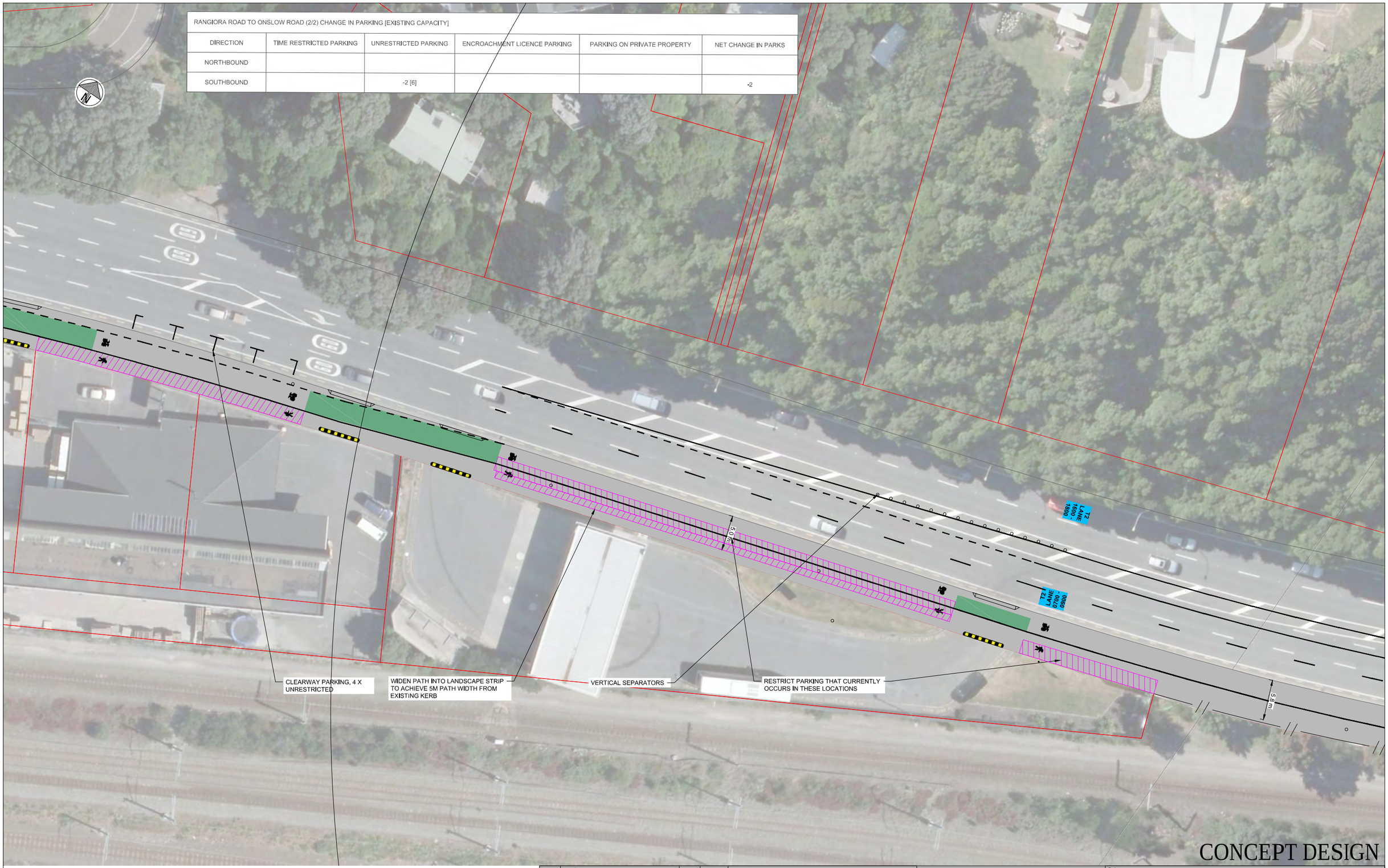
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	07	A

RANGIORA ROAD TO ONSLOW ROAD (2/2) CHANGE IN PARKING [EXISTING CAPACITY]					
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND					
SOUTHBOUND		-2 [6]			-2



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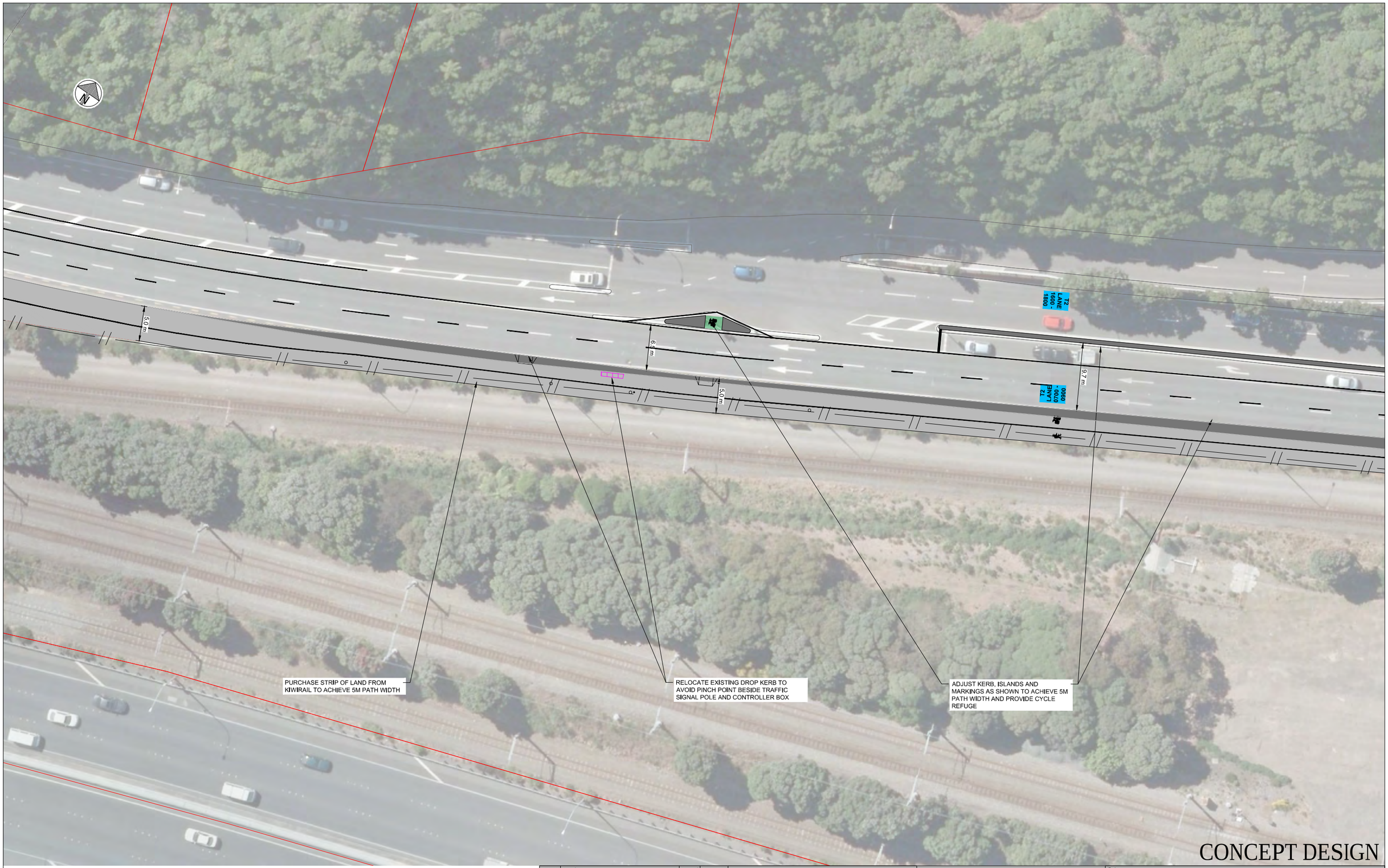
Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	08	A



300 mm 200 100 50 10 mm 0

NOTES:

1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
2) ALL VEHICLES CROSSINGS ON HUTT ROAD TO BE RECONSTRUCTED TO WCC STANDARD R-24-721
3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

Revision	Amendment	Approved	Revision Date
A	CONCEPT DESIGN	-	17/12/2015

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Wellington Office
+64 4 471 7000
PO Box 12-003
Wellington 6144
New Zealand

Drawn	Designed	Approved	Revision Date
ST	ST	ES	17/12/2015

Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	09	A

NOTES:

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3) HUTT ROAD SHARED PATH TO BE RESEALED ALONG ENTIRE LENGTH

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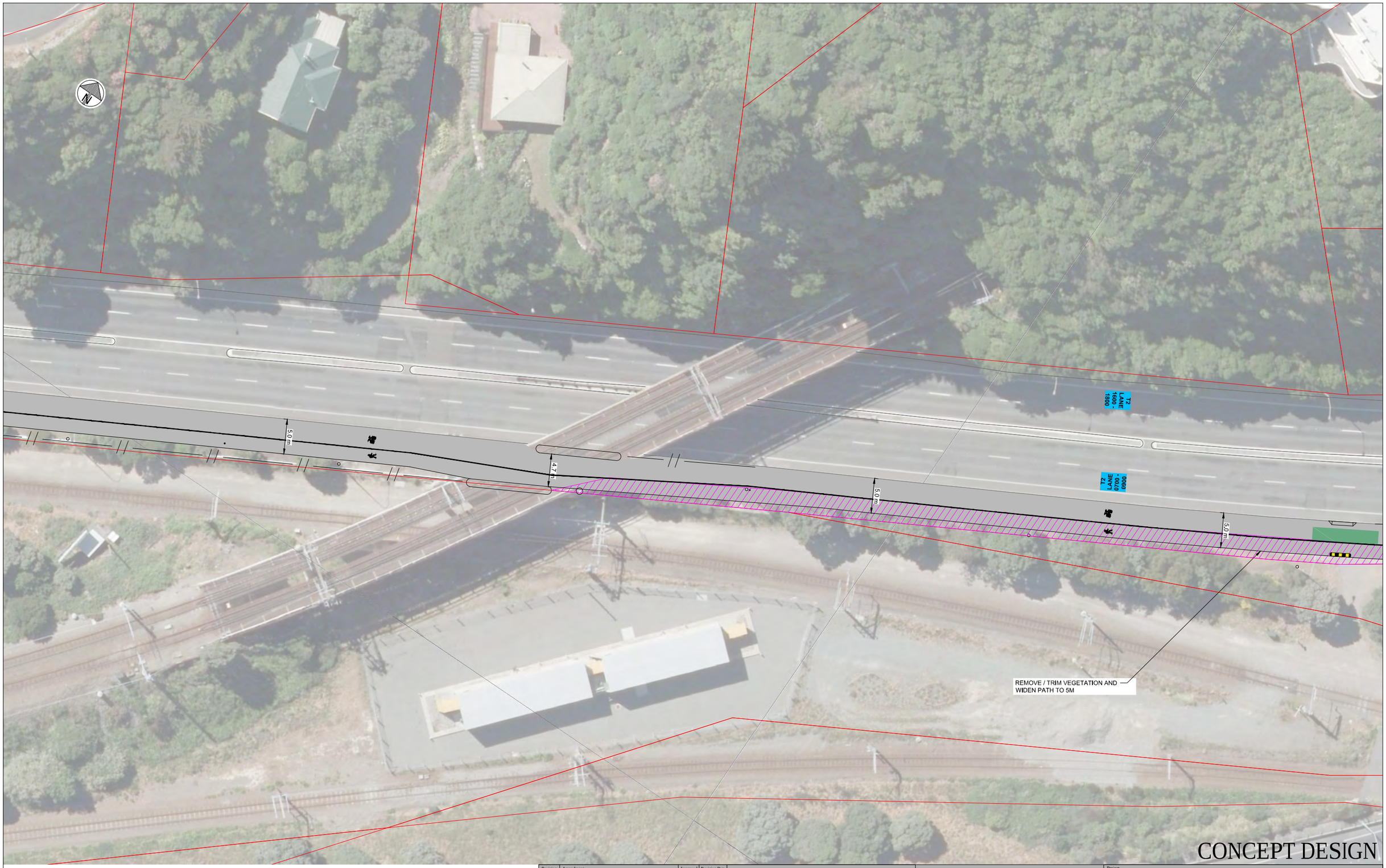
Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	10	A



NOTES:
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Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	11	A

NOTES:
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Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	12	A

300 mm
200
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10 mm
0

NOTES:
ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC TO BE RELOCATED TO BACK OF PATH

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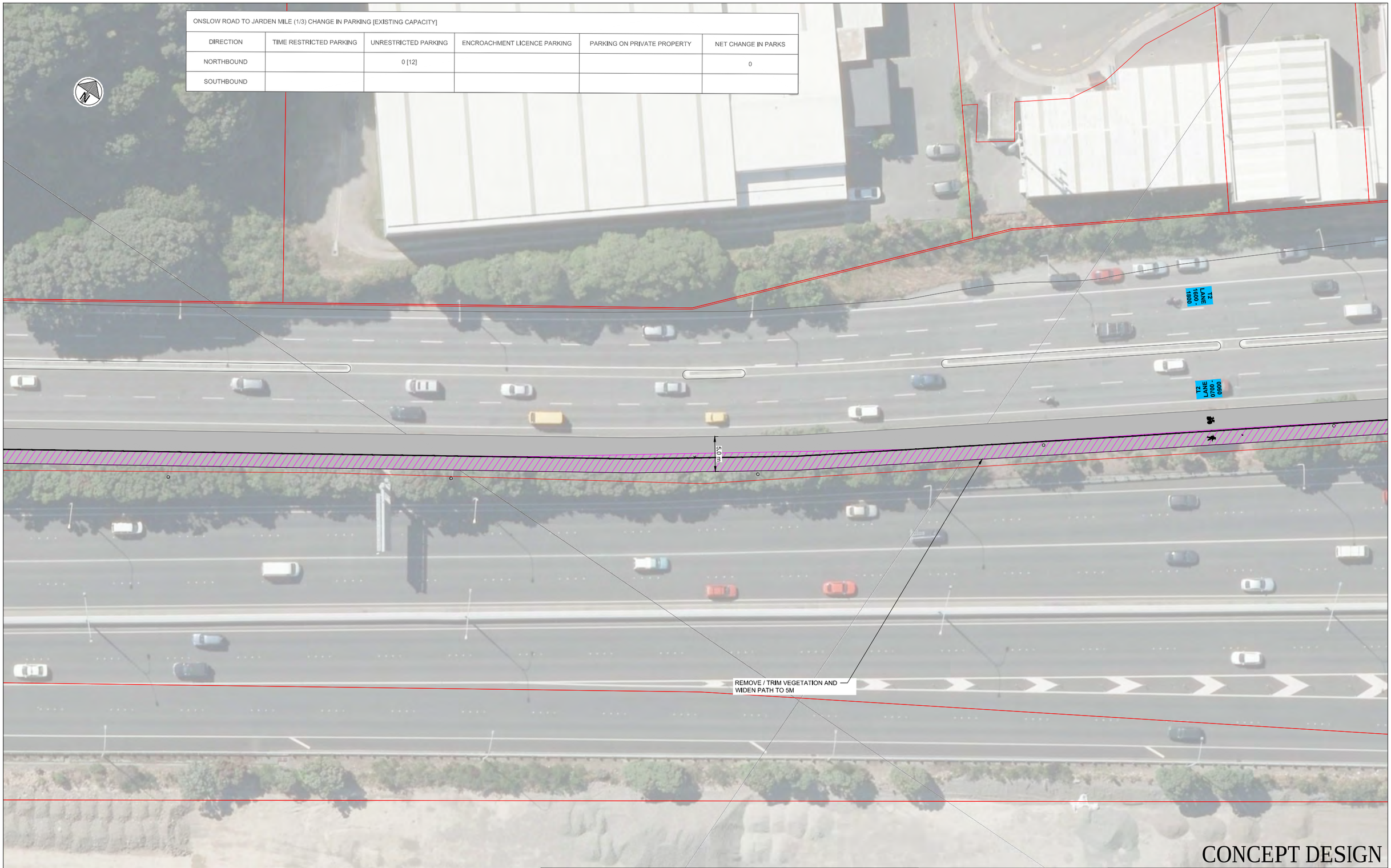
Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	13	A

ONSLOW ROAD TO JARDEN MILE (1/3) CHANGE IN PARKING [EXISTING CAPACITY]					
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND		0 [12]			0
SOUTHBOUND					



NOTES:
1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
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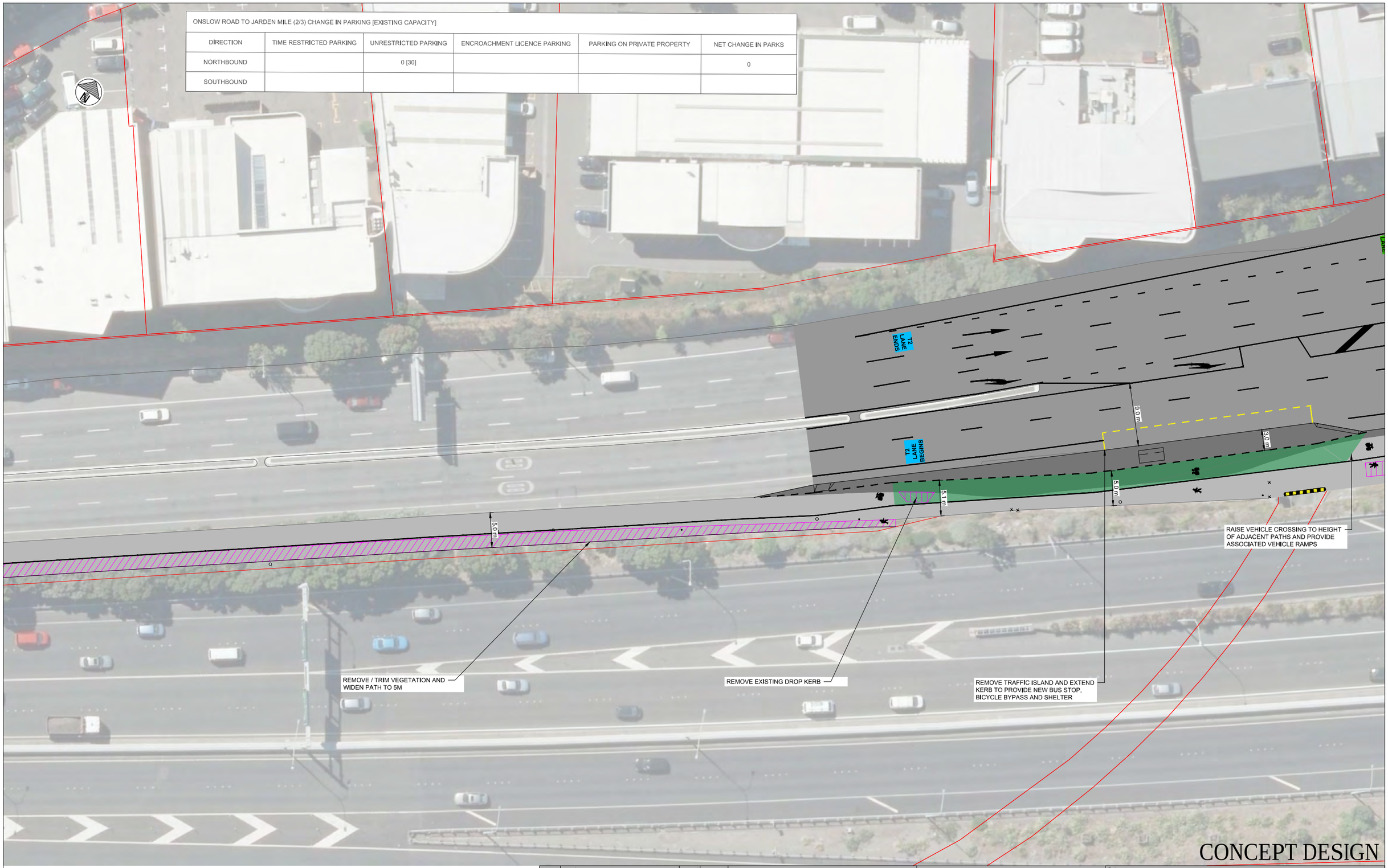
Project No.	Scale
5-C2953.00	1:250

Project
HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

Sheet
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	14	A

ONSLOW ROAD TO JARDEN MILE (2/3) CHANGE IN PARKING [EXISTING CAPACITY]					
DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND		0 [30]			0
SOUTHBOUND					



NOTES:
1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
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5-C2953.00	1:250

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HUTT ROAD
SUSTAINABLE TRANSPORT IMPROVEMENTS

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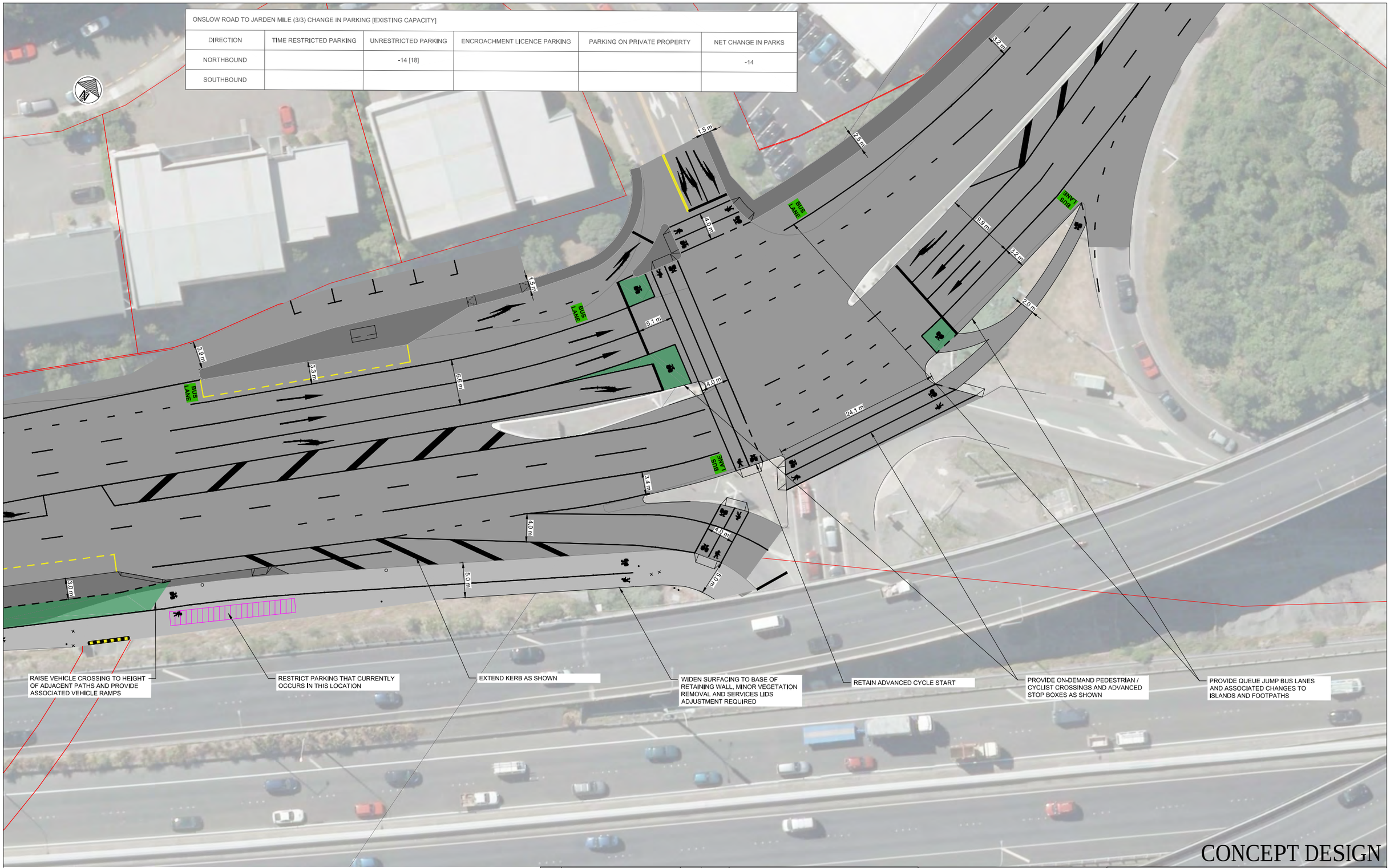
OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	15	A

ONSLOW ROAD TO JARDEN MILE (3/3) CHANGE IN PARKING [EXISTING CAPACITY]

DIRECTION	TIME RESTRICTED PARKING	UNRESTRICTED PARKING	ENCROACHMENT LICENCE PARKING	PARKING ON PRIVATE PROPERTY	NET CHANGE IN PARKS
NORTHBOUND		-14 [18]			-14
SOUTHBOUND					



NOTES:
1) ALL LIGHT COLUMNS, SIGNS, SERVICE MARKERS, ETC ON HUTT ROAD TO BE RELOCATED TO BACK OF PATH
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OPTION B

Drawing No.	Sheet. No.	Revision
5-C2953.00_C220	16	A