### Absolutely Positively **Wellington** City Council

Me Heke Ki Pōneke

# WCC Transitional Cycleways Multi Criteria Analysis

Newtown to Island Bay

5 October 2022



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1	2/09/2022	Draft for client review	E Da Silva	A Head
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# 1. Assessment Details

### 1.1 Newtown to Island Bay (N2IB) transitional cycleway

The WCC Transitional Cycleways programme proposes interim transitional cycleways to quickly roll out the WCC cycleway network over months rather than years. These transitional cycleways will be formed with minimal physical works and temporary materials in an interim fashion.

The transitional programme has divided the proposed network into routes, with each route forming an individual project. This report relates to the Newtown to Island Bay Transitional Cycleway shown below in Figure 1.



Figure 1 Project extents

The Newtown to Island Bay Transitional Cycleway extends along Riddiford Street, Rintoul Street, Luxford Street, and Adelaide Road from Luxford Street to Dee Street. The route ensures a continuous connection either into existing cycleways (Newtown to City, Kilbirnie and Island Bay) or will be connecting into future cycleways (Newtown to Zoo and South Wellington Intermediate School (SWIS), and Brooklyn to Berhampore).

There is currently limited provision for people travelling by bike (only advanced stop bike boxes at signalised intersections and some sharrows) between Newtown and Island Bay (at Dee Street). This route has been identified as a Primary Corridor in the Paneke Pōneke Bike Network Plan, and is a critical route for Newtown, Berhampore and Island Bay. The Primary Network is anticipated to cater for higher volumes of cycle movement, longer and more efficient journeys and connecting key locations of employment and education.

The Council, following public consultation in December 2021, have included this corridor in the list of transitional projects that require quick and cost-effective cycle infrastructure improvements.

The transitional programme uses interim installations to provide a 'first cut' of the whole route using adaptable materials. Once installed, the Council gathers feedback via consultation on the changes and can make improvements to things such as signs, street markings, parking and the position of dividers between the bike lanes and traffic.

Newtown to Island Bay has been divided into seven sections to reflect the differences in road layout, gradient, character and design along the route. These sections are shown in Figure 1 and include;

- Riddiford Street (Mein Street to Rintoul Street) shown in yellow
- Rintoul Street Section 1 (North of Wakefield Hospital) shown in orange
- Rintoul Street Section 2 (South of Wakefield Hospital) shown in green
- Luxford Street shown in red
- Adelaide Road Section 1 (Luxford Street to Britomart Street) shown in light blue
- Adelaide Road Section 2 (Britomart Street to North end of Wakefield Park) shown in purple
- Adelaide Road Section 3 (Wakefield Park to Dee Street) shown in pink

### 1.2 Adjacent projects

A number of adjacent projects interact with this transitional cycleway route. These are described in Table 1 below.

Project	Status	Description	
Newtown to City Transitional Consultation, Cycleway expected soon		Installation of cycle improvements between Newtown, Wellington Hospital and the waterfront (at Kent Terrace). This connects to the northern end of the N2IB transitional cycleway.	
		For a full description refer to the WCC website https://www.transportprojects.org.nz/current/newtown-to-city/	
LGWM Targeted Improvements Project CSTISC30 Rintoul Street Bus Stop rationalisation	Planning, construction expected early 2023	Review spacing of bus stops along Rintoul Street and improvement of lead in/outs	

### Table 1 Adjacent projects

Project Status		Description	
LGWM Targeted Improvements Project CSTISC36 Berhampore Bus stop rationalisation	Planning, construction expected early 2023	Combine city bound bus stops on Adelaide Street and Luxford Street into a single stop south of the Adelaide Road/ Luxford Street intersection to avoid customers having to preselect services. Requires removal of parking but existing stops could be given over to parking to compensate.	
LGWM Targeted Improvements Project CSTISC38 Duppa Street Pole Relocation & amenity improvements	Planning, construction expected early 2023	Relocate power pole on Adelaide Road at Duppa Street to improve public transport safety coupled with shelter improvements and rationalisation of southbound bus stops in this vicinity.	
Berhampore Town Centre Upgrade	Planning and design	Works in the Berhampore Town Centre (including areas of Adelaide Road, Britomart Street, Luxford Street and Rintoul Street) to improve the look and feel of the village. Works are typically located behind the existing kerbs and include making it easier for people of all ages and abilities to move around, paving, planting, street furniture, lighting, places of interest for mana whenua and heritage, and types of future housing.	
		For a full description refer to the WCC website https://www.transportprojects.org.nz/current/newtown- connections/berhampore-village/	
Newtown Parking Management Plan	Planning	Assessing the street parking use and capacity in the wider Newtown area. The parking study is part of the detailed planning WCC are completing prior to and with transport changes in the wider Newtown area.	
LGWM City Streets Newtown to Berhampore SSBC	Business Case, construction expected 2023	Improvements along Rintoul Street, Luxford Street and Adelaide Road between Luxford Street and Dee Street. These include public transport and cycling enhancements, walking improvements to improve bus stop access, and safety and operational improvements at key intersections	
LGWM Mass Rapid Transit	Business Case, construction expected 2028	Development of a rapid transit public transport corridor between the city and southern suburbs to encourage economic growth, allow for more housing and urban development, and help suburbs flourish and grow.	
		This corridor currently includes the full N2IB transitional cycleway route. For a full description refer to the LGWM website https://lgwm.nz/all-projects/mass-rapid-transit/	

# 2. Multi Criteria Analysis (MCA) Process

## 2.1 MCA Process

There were two major steps to the MCA process, identifying short list options and confirming the preferred solution.

Short list options were identified by reviewing constraints which limited the feasibility of long list options and assisted in eliminating options to arrive at the short list. This is described in Section 2.7, and specific assessment for each section is provided in the relevant appendix.

The preferred option was confirmed through the scoring against the MCA criteria. The highest scoring option or options were confirmed as preferred. Summaries for each route section are provided in Section 3. For a detailed breakdown refer to Appendix A.

## 2.2 Criteria and considerations

The MCA applies criteria prepared for the transitional cycleway programme by WCC and provided to the project team for this assessment. This has been based on the criteria used by WCC for the Brooklyn Hill cycleway project with adjustment reflecting the WCC Parking policy 2020, and learnings from the MCA criteria previously applied for the Newtown to City, Botanic Gardens ki Paekākā to City, Ngaio and Aro Valley transitional cycleways. In addition, the MCA criteria considers the overall journey for cyclists along this route with a focus on the connectedness of the options proposed for the various sections.

## 2.3 Scoring

The project team identified how each consideration would be assessed on a scale of -3 to +3. The scoring scale and descriptions are provided in Appendix A.

## 2.4 Scoring scale

The project criteria were given weighting depending on their perceived importance<sup>1</sup>. The weighting for each consideration varies. The scoring scale is attached in Appendix A.

## 2.5 Types of cycle lanes/ways used for options

The options refer to cycle lanes, buffered cycle lanes and protected cycleways as different treatments. Specifically these are as follows;

Cycle lane/way	Description
Cycle lane	Up to 1.5m width (1.8m width if adjacent to parking). Markings comprise an edge line and cycle symbols at regular intervals. Coloured surfacing, no-stopping markings, and/or cycle lane signage may also be used at selected locations.
	The majority of interested but concerned are comfortable riding in cycle lanes at modest volumes and speeds. However, as traffic volumes, traffic speeds and provision/use of adjacent parking increase, cycle lanes become increasingly uncomfortable.

<sup>&</sup>lt;sup>1</sup> Walking and cycling are identified as being the most sustainable modes of transport and are being prioritised above other modes worldwide. According to the Sustainable Transport Hierarchy of the Wellington City Council, cycling is the second-most important transport mode, behind walking and above public transport. To improve connectivity and movement of people within Wellington, cycling plays a vital part in achieving the multi-modal vision of the Spatial Plan.

Cycle lane/way	Description	
Buffered cycle lane	1.5 to 1.8m width. Markings as for cycle lanes plus a second edge line offset by 200mm to 300mm between the cycle lane and the traffic lane to encourage cyclists to ride in the centre of the lane with additional space from passing traffic	
	The high-level cross-sections provided do not show pavement markings, refer to dimensions and descriptions for each option in the relevant appendix.	
Separated cycle way	Greater than 1.8m width <sup>2</sup> . A facility exclusively for cycling with physical separation from motor traffic.	
	The high-level cross-sections provided show an indicative bollard separation but not pavement markings. A raised concrete buffer is often perceived as a buffer for a separated cycleway, however this is not within scope for the transitional projects. Refer also to the dimensions and descriptions for each option in the relevant appendix.	
Bidirectional cycleway	A facility exclusively for two way cycling with physical separation from motor traffic. Cyclists in opposing direction are riding contraflow to adjacent traffic	
	The high-level cross-sections provided show an indicative bollard separation but not pavement markings. A raised concrete buffer is often perceived as a buffer for a bidirectional cycleway, however this is not within scope for the transitional projects.	

## 2.6 Design dimensions

Local and national design guidance was referenced to identify design widths for the elements being considered in the options. Specifically, the guidance considered was:

- Waka Kotahi guidance<sup>3</sup>
- Austroads guidance, as referenced by Waka Kotahi guidance
- WCC guidance as described in the WCC Code of Practice for Land Development

Table 2 outlines the absolute minimum, desirable minimum, and desirable widths for relevant transport facilities, as noted in the reference guidelines.

Using a combination of these reference guidelines, best practice, and input from WCC, a list of minimum and desirable widths was identified for each of the design elements being considered on the Newtown to Island Bay Transitional Cycleway. This list, provided in Table 3, was used as the basis for developing the options for the transitional cycleway. Note that absolute minimums can only be used in certain situations as outlined in the relevant guidance.

	Recommended widths			
Design element	Absolute minimum	Desirable minimum	Desirable	Reference
Factaath	1.65m	1.8m		PNG <sup>1</sup>
Foolpain	1.5m		2.0m	COP <sup>2</sup>
Cycle land payt to karb	1.4m	1.6m		CNG <sup>3</sup>
Cycle lane next to kerb	1.5m		2.2m	CF <sup>4</sup>
Cycle lane next to parallel parking		1.8		
Bi directional evelo facility <sup>5</sup>	2.5m	3.0m	3.5m	CNG <sup>3</sup>
	2.5m	-	-	CF <sup>4</sup>

### Table 2 Design guidance recommended widths

<sup>&</sup>lt;sup>2</sup> WCC have advised that their maintenance contract has been updated to include a 1.4m wide sweeper (refer email between J Kennett and B Rodenburg dated 14/6/22). To accommodate this the minimum design width between separators (up to 0.3m wide) and the kerb face is 1.5m.

<sup>&</sup>lt;sup>3</sup> https://www.nzta.govt.nz/walking-cycling-and-public-transport/cycling/cycling-standards-andguidance/cycling-network-guidance/. This has been developed with consideration of international best practice such as the CROW Design Manual for Bicycle Traffic 2016

	Recommended widths			
Design element	Absolute minimum	Desirable minimum	Desirable	Reference
Protection buffer zone (between a cycle path/lane	0.3m		1.0m	CNG (described in TN004 <sup>6</sup> )
and a traffic lane)	0.6m			CF
Protection buffer zone (between a cycle path/lane	0.7m	0.85 <sup>7</sup>	1.0m	CNG (described in TN004)
and parallel parking)		1.0m	1.2m	CF
	3.0m		3.5m	SHGDM <sup>8</sup>
Traffic lane			3.5m	COP/CF
		3.2m		WCC <sup>9</sup>
Central traffic path <sup>10</sup>	2.2m			CROW manual <sup>11</sup>
Borollol parking	1.9m		2.0m	CNG <sup>3</sup>
Parallel parking		2.0m	2.5m	WCC <sup>9</sup>
Shared Path	2.5m	3.0m	1.5m footpath & 2.5m cycle path	CNG (refers to Austroads <sup>12</sup> )

Notes

1 – Waka Kotahi Pedestrian Network Guide

2 - WCC Code of Practice for Land Development - Part C: Road Design and Construction

3 – Waka Kotahi Cycle Network Guidance

4 – WCC Cycling Framework

5 – For up to 150 cyclists per hour during peak periods. As a comparison, cyclist volumes reported on the WCC Cycle count data website shows peak cycle volumes on Hutt Road and the Cobham Drive shared path as 135 and 70 cyclists respectively. Even allowing for growth the transitional cycleways feed into these routes and are unlikely to exceed 150 cyclists in the peak hour prior to the transformational projects being installed.

6 – Waka Kotahi Cycle Network Guidance Technical Note 004 Buffered cycle lane design, dated August 2020 7 – WCC have advised that a 0.8m wide buffer is the minimum that a rubbish or recycling bin can be placed for collection.

8 - Waka Kotahi State Highway Geometric Design Manual DRAFT

9 – Advice provided by WCC's Transport & Infrastructure team on the desirable minimum width of traffic lanes on bus routes.

10 - For low volume streets with two-way traffic, vehicles required to deliberately veer onto the cycle lane when encountering oncoming traffic

11 - CROW Design Manual for Bicycle Traffic 2016.

12 - Austroads Guide to Road Design, Part 3 and Part 6A

### Table 3 Dimensions used in developing options for transitional cycleways

Decign cloment		Width		
Design element		Minimum	Desirable	
Footpath		N/A <sup>1</sup>	N/A <sup>1</sup>	
Cycle lane		1.5m	2.0m	
Bi-directional cycle facil	ity	2.5m	3.5m	
Brotaction payt to	Next to traffic lane	0.3m <sup>2</sup>	1.0m	
evelo facilitios	Next to parallel parking	0.7m	1.0m	
cycle lacilities	Next to angle parking	0.6m	>0.6m	
Traffic lane <sup>3</sup>		3.0m	3.5m	
Two-way traffic lane		5.5m		
Central traffic path <sup>4</sup>		3.0m	3.5m	
Parallel parking		1.9m	2.0m	
Shared path		2.5m	1.5m footpath & 2.5m cycle path	

1 – Footpath widths are unchanged due to the transitional approach which excludes any options which require kerb changes

2 - Minimum dimension reduced for transitional cycleways to minimum for temporary kerb to be installed

3 – Desirable to accommodate large vehicles such as trucks and buses. Where shared with cyclists a traffic lane should be either less than 3.2m or greater than 4.2m to avoid unsafe overtaking as described in the Waka Kotahi Cycle Network Guidance

4 - Based on minimum and desirable width for a traffic lane

Where bus stops interact with the cycle facility, guidance in the Waka Kotahi Public Transport Design Guidelines applies. Separated and buffered cycle lanes will continue through the bus stop, and the stop may be raised and a different colour to promote shared use if cyclist and bus frequency is considered high enough. This will likely be the same ZICLA<sup>4</sup> products being used in the Newtown to City and Botanic Gardens Ki Paekākā to City transitional cycleways.



Figure 2 Zicla bus stop being installed outside the hospital for the Newtown to City Transitional Cycleway

## 2.7 Alternatives considered in long list assessment

The transitional cycleway approach limits the cycle facility options along the route. In general, the following considerations were applied to exclude options from the short list for the MCA. These are further detailed for each route section in the respective appendices (refer also to Section 3 below).

- Do nothing. There would be no improvement to the existing situation which has been identified as requiring improvement for cyclists through consultation on the Paneke Poneke Bike Network Plan
- Alternative routes. These primary routes are identified in the Paneke Poneke Bike Network Plan which has been consulted and approved in a separate process which considered alternate route options. Our assessment is not intended to repeat this
- Sealed shoulders. These are also not significantly different from cycle lanes (which could be considered sealed shoulders with cycle markings). Sealed shoulders may also be used for other purposes such as car parking which means that opportunity for a cyclist to use the space can be intermittent. This does not meet the Paneke Poneke Bike Network Plan concept of a connected cycleway network
- Bidirectional paths where gradients exceed 4% and there is limited road width. As described in the Waka Kotahi Cycle Network Guidance this is the point at which uphill cyclists are likely to require extra width for wobbling, and downhill cyclists travel faster so require extra width for safe manoeuvring
- Shared paths where routes are intended to form key parts of the cycle network with high cyclist volumes.

- Change in road space through kerb realignment. The transitional cycleways are intended to require minimum physical works and ability to amend or reinstate if required. Minor site-specific buildouts or kerb changes will be regarded as traffic calming measures and crossing safety infrastructure.
- Extensive kerb realignment or similar works will result in permanent changes not suitable for this programme
- Removing high priority parking<sup>5</sup> where there are no alternative spaces nearby
- Bus lane removal due to the negative impact on public transport users
- Central traffic paths<sup>6</sup> where traffic or heavy vehicle volumes mean a significant proportion of drivers will be required to pass opposing vehicles (indicatively around 1,000 vehicles per day). This results in significant delays and frequent encroachment into the cycle space.

### 2.8 Updates following stakeholder review of draft MCA

The draft MCA was issued for review on 2 September 2022. Council arranged reviews by various internal and external stakeholders including Waka Kotahi, Greater Wellington Regional Council, and cycling and walking representatives. A range of feedback was received, and this is reflected in the following updates;

- Update to scoring as required in response to feedback comments
- Traffic lane widths along this corridor maximised up to 3.5m for buses at 30% design
- Separators without hit posts/ bollards not considered for this corridor owing to recent concerns around their usage
- The repositioning/ movement and detailed design of bus stops along the corridor to be advised and detailed by Metlink which will be incorporated at 30%
- Proposed changes to signal hardware, lane arrangement, crossings or phasing to any of the signalised intersections to be considered in 30% design
- Bus stop treatments and platform use to be considered in 30% design
- The provision of protected cycleways in both directions to be considered in 30% design
- Vehicle tracking to be undertaken at 30% design to identify pinch points
- No stopping lines to be shown on 90% design drawings
- Confirmation of the preferred options to progress to 30% design
- Added additional considerations for 30% design in the respective sections.

Cycleway Parking Assessment for a description of how this applies to this area

<sup>6</sup> As defined in Table 1

<sup>&</sup>lt;sup>5</sup> As defined in the Wellington Parking Policy 2020. Refer to the Newtown to Island Bay Transitional

# 3. MCA Outcomes

A summary of the assessment for each route is provided below. For a detailed breakdown refer to the scoring tables attached in the respective appendices.

The shortlisted options assessed are only those that fit within the existing kerb to kerb width of each road section and generally meet the design guidance as outlined in Section 2. Specific pinch points such as pedestrian crossings, kerb buildouts, right turn bays and vehicle tracking will be addressed during 30% design with specific treatments that continues the preferred concept design option but may require applying absolute minimums (for instance the cycle lane width could be reduced for a short distance, bollards stopped or a short section of parking could be removed).

Other improvements such as pedestrian crossings, kerb ramps, extent of no-stopping markings, bus stop locations, rationalising bus stops, areas for street furniture/facilities, connection with parks and streams and priority parking generally equally apply across all of the concept options. These will therefore be included in the detailed designs for comment.

## 3.1 Riddiford Street

Riddiford Street is currently a three-lane road with right turning bays on the approaches to the signalised intersections located at both ends of the section.



Key corridor information is included in Appendix A. Highlights for this section of the road include;

- Section length is approximately 100m
- Average carriageway width including bus stop is 14.3m
- Five-day average daily traffic is approximately 17,700 vehicles
- Recorded 85<sup>th</sup> percentile speeds (37 km/hr) are similar to the posted speed limit (40 km/hr)
- Designated a Principal Road in the District Plan
- Town Centre with high volume of through movement
- Section is flat and has a straight alignment
- Time restricted parking on the eastern side, time restricted parking and a bus stop on the western side with a clearway operating 7-9am on weekdays
- Adjacent land uses include Newtown School, shops and businesses
- Signalised intersections at both ends of the section

### Table 4 Riddiford Street MCA scores

	Option 1	Option 2	Option 3
Description	Separated cycleway both directions, remove all parking	On road cycle lanes in both directions, wider northbound bus lane, remove all parking	Separated cycleway toward Island Bay, Shared bike/bus lane towards City, wider traffic lanes, remove all parking
Streetmix section			Option 3
Key differentiating factors	Protected facility for cyclists in both directions improving cyclist safety and uptake Aligns better with future	Dedicated facility for cyclists in both directions improving efficiency Cycle lane has no physical	Protected facility for cyclists towards Island Bay improving cyclist safety, but facility in only one direction so potentially limited uptake
	option of protected cycleways on both sides of the road Turning lane to accommodate efficient	which could limit uptake Wider traffic lanes	Conversion of a northbound traffic lane to a shared bike/ bus lane
	significant impact on parking availability with all on street parking removed. A suitable parking scheme will be required for the surrounding roads to accommodate the high-priority vehicles	Lower alignment with other planned works Significant impact on parking availability with all on street parking removed. A suitable parking scheme will be required for the surrounding roads to accommodate the high-priority vehicles	Wider traffic lanes Lower alignment with other planned works Significant impact on parking availability with all on street parking removed. A suitable parking scheme will be required for the surrounding roads to accommodate the high-priority vehicles
Weighted score	1.08	0.93 Note 1	1.13 Note 2
Rank	3	4 Note 1	

	Option 4	Option 5
Description	Shared lanes both directions, parking one	Separated cycleway both directions,
	side, traffic calming, reduced speed	remove one traffic lane, wider traffic lanes,
	environment, wider traffic lanes	remove all parking
Streetmix section	Option 4	Option 5
Key differentiating factors	Slower speed environment improves safety for all road users including cyclists	Protected facility for cyclists in both directions improving cyclist safety and
	Removal of one northbound traffic lane –	uplake
	network effects are unknown	Removal of one northbound traffic lane –
	Parking to be partially accommodated on	network effects are unknown
	one side with an appropriate parking priority scheme for surrounding roads	Wider traffic lanes
	No specific cycling provision may reduce	Buses stopping at the western bus stop would block the through traffic lane
	with traffic	Higher alignment with planned works
	Unprotected cyclists required to ride adjacent to traffic and in car door zone with reduced safety and uptake	Aligns better with future option of protected cycleways on both sides of the road
	Wider traffic lanes	Significant impact on parking availability with all on street parking removed. A suitable parking scheme will be required for
	Poor alignment with other road projects and transformational cycleway options	the surrounding roads to accommodate the high-priority vehicles
Weighted score	0.68 Note 1	1.23 Note 2
Rank	5 Note 1	1 Note 2

### Notes

- 1. Options 2 and 4 reduce capacity for general traffic by changing a northbound traffic lane into a bus lane and inline bus stop respectively. The network effect of these changes, including potential delay to vehicles including buses, are not considered by the current MCA criteria and weighted scores. These factors should be considered when identifying the preferred option.
- 2. Option 5 removes a northbound traffic lane. Option 3 converts a northbound traffic lane into a bus lane. The network effect of these changes, including potential delay to vehicles including buses, are not considered by the current MCA criteria and weighted scores. These factors should be considered when identifying the preferred option.

The Newtown to City Transitional Cycleway immediately north of this section is likely to include separated cycleways on Riddiford Street north of Mein Street. The options proposed for this section will need to consider and connect safely to those proposed cycle facilities.

Option 5 received the highest score during the MCA, although as described in Note 1 above this score does not reflect any network effect as a result of lane changes.

However, based on the feedback received Council have advised to proceed with Option 3 to 30% design. Although this option scored second it is being pursued by Council for other reasons, such as providing an improved facility for buses and bikes which integrates better with the dedicated bus lane in the next section. Additionally, it will provide an extra lane for buses and bikes.

Other considerations identified for this section include;

- The provision of a platform and cycleway crossing at the bus stop adjacent to the Mein Street intersection which is already cluttered with poles and street furniture with poor pedestrian sightlines
- Potential for surface/ accessibility improvements at Mein/ Riddiford intersection to support access to the school and the hospital
- Manage the conflict between northbound cyclists and left turning vehicles at Hall Street
- Improvements to signal phasing to facilitate southbound cyclists turning right on to Rintoul Street
- Include reduction of speed to 30kmh

These will be considered in 30% design.

# **3.2 Rintoul Street Section 1 (North of Wakefield Hospital)**

This part of the route refers to Rintoul Street Section 1, north of the Wakefield Hospital. This section is currently a two-lane road with parking permitted on both sides. However, the narrow road width means that vehicles are often required to slow and partially manoeuvre into driveways or gaps in on-street parking to allow opposing traffic to pass, especially when a larger vehicle such as a bus is involved. The street has bus stops on either side.



Key corridor information is included in Appendix A. Highlights for this section of the road include;

- Section length is approximately 600m
- Average carriageway width is 8.8m
- Five-day average daily traffic is approximately 3,600 vehicles
- Recorded 85<sup>th</sup> percentile speeds (31 km/hr) are below the posted speed limit (50 km/hr)
- Current narrow traffic lanes assist in reducing speed on this section
- Designated a Collector Road in the District Plan
- Average gradient is 6% downhill towards the city
- High on-street parking demand, with some houses not having off-street parking available
- High number of intersections and driveways, with bus stops
- Street contains Alexandra Rest Home and an early learning centre
- Aged population make up a significant proportion of pedestrian population

	Option 1	Option 2
Description	Separated cycleway towards Island Bay	Separated cycleway towards Island Bay
	(uphill), Shared lane towards City (downhill),	(uphill), shared lane towards City (downhill),
	no parking, increased traffic lane width	parking west side
Streetmix section	Option 1	Option 2
Key differentiating factors	Protected facility for cyclists towards Island Bay improving cyclist safety, but facility in only one direction so potentially limited uptake	Protected facility for cyclists riding towards Island Bay improving safety, but facility in only one direction so potentially limited uptake
	Reduced delay for traffic (including buses) due to increased lane width	Some accommodation of high-priority parking on one side, will require a suitable parking scheme for the additional vehicles to
	High alignment with other planned works	be accommodated on the surrounding roads
	Significant impact on parking availability with	High alignment with other planned works
	parking scheme will be required for the surrounding roads to accommodate the high- priority vehicles	Minor speed differential with cyclists downhill
	Minor speed differential with cyclists downhill	
Weighted score	0.98	0.70
Rank	1	2

### Table 5 Rintoul Street (North of Wakefield Hospital) MCA scores

	Option 3	Option 4
Description	On road cycle lane towards Island Bay	On road cycle lanes both directions, no
	(uphill), shared lane towards City (downhill),	parking, increased traffic lane width
	parking west side	No
Streetmix section	Option 3	Option 4
Key	Dedicated facility for cyclists riding towards	Dedicated facility for cyclists in both
factors	Island Bay Improving safety, but facility in only one direction so potentially limited	
	uptake	Cycle lane has no separation from vehicles which could limit uptake
	Cycle lane (width less than minimum of 1.6m) has no separation from vehicles, particularly on west side where cyclists will be encouraged to ride in door zone	Reduced delay for traffic (including buses) due to increased lane width, although still narrow for buses
	Wider traffic lanes	Least alignment with other planned works
	Some accommodation of high-priority parking on one side, will require a suitable parking scheme for the additional vehicles to be accommodated on the surrounding roads	All on street parking removed. A suitable parking scheme will be required for the surrounding roads to accommodate these vehicles
	Minor speed differential with cyclists downhill	
Weighted score	0.65	0.63
Rank	3	4

Option 1 received the highest score during the MCA.

However, based on the feedback received Council have advised to proceed with Option 3 to 30% design. Although this option scored third it is being pursued by Council for other reasons, such as the ability to improve the level of service for both bikes and public transport whilst providing some parking, and through the provision of additional room for buses whilst improving awareness and legitimacy of space for cyclists.

Other considerations identified for this section include;

- Bus stops on the downhill are to be lengthened
- Bus stops to be rationalised and combined if appropriate
- Potential for the southbound in-line bus stop adjacent to Rintoul Street/ Riddiford Street to cause traffic queuing into intersection
- Identify opportunities to provide additional width in the cycle lane
- Tactile markings/ rumble strip to define cycle lane

# 3.3 Rintoul Street Section 2 (South of Wakefield Hospital)

This part of the route refers to Rintoul Street, Section 2 which is south of the Wakefield Hospital. This section is currently a two-lane road with parking permitted along the kerb.



Key corridor information is included in Appendix A. Highlights for this section of the road include;

- Section length is approximately 300m
- Average carriageway width is 9.3m
- Five-day average daily traffic is approximately 8,300 vehicles
- Recorded 85<sup>th</sup> percentile speeds (48 km/hr) are similar to the posted speed limit (50 km/hr)
- Designated a Collector Road in the District Plan
- Average gradient is 3% uphill towards the city
- High on-street parking demand, with some houses not having off-street parking availability
- High number of intersections and driveways, with bus stops
- Street contains retirement villages, Wakefield Hospital, South Wellington Intermediate School, a church. It also includes shops at the intersection of Rintoul Street and Luxford Street

	Option 1	Option 2	Option 3
Description	Shared lane toward Island Bay (downhill), separated cycleway toward City (uphill), no parking, increased traffic lane width	Shared lane toward Island Bay (downhill), cycle lane toward City (uphill), parking east side	Shared lanes both directions, traffic calming, 30km/hr speed environment, parking both sides
Streetmix section			
Key differentiating factors	Protected facility for cyclists towards the City improving cyclist safety, but facility in only one direction so potentially limited uptake Reduced delay for traffic (including buses) due to increased lane width Higher alignment with other planned works Significant impact on parking availability with all on street parking removed. A suitable parking scheme will be required for the surrounding roads to accommodate the high-priority vehicles Minor speed differential with cyclists downhill	Facility for cyclists towards the City improving cyclist safety, but facility in only one direction so potentially limited uptake Higher alignment with other planned works Minor speed differential with cyclists downhill Some accommodation of high- priority parking on one side, will require a suitable parking scheme for the additional vehicles to be accommodated on the surrounding roads Unprotected cyclists required to ride adjacent to traffic and in car door zone with reduced safety and uptake	Unprotected cyclists required to ride adjacent to traffic and in car door zone with reduced safety and uptake Slower speed environment improves safety for all road users including cyclists Poor alignment with other road projects and transformational cycleway options No impact on parking
Weighted	0.98	0.65	0.83
Rank	1	5	4

### Table 6 Rintoul Street Section 2 (South of Wakefield Hospital) MCA Scores

	Option 4	Option 5			
Description	On road cycle lane toward Island Bay	Shared lane toward Island Bay (downhill),			
	(downhill), separated cycleway toward City	separated cycleway toward City (uphill),			
	(uphill), no parking	parking east side			
Streetmix section	Option 4	Option 5			
Key differentiating	Dedicated facility for cyclists riding towards	Protected facility for cyclists riding towards			
factors	Island Bay with a protected facility toward	the City improving safety, but facility in only			
	the City improving safety	one direction so potentially limited uptake			
	Downhill cycle lane has no physical protection from vehicles which could limit uptake	Some accommodation of high-priority parking on one side, will require a suitable parking scheme for the additional vehicles to be accommodated on the surrounding roads			
	Significant impact on parking availability with all on street parking removed. A suitable parking scheme will be required for the	Higher alignment with other planned works			
	surrounding roads to accommodate the high- priority vehicles	Minor speed differential with cyclists downhill			
		Unprotected cyclists required to ride			
	Minor speed differential with cyclists downhill	adjacent to traffic and in car door zone with			
		reduced safety and uptake			
Weighted score	0.98	0.90			
Rank	2	3			

Option 1 received the highest score during the MCA.

However, based on the feedback received Council have advised to proceed with Option 2 to 30% design. Although this option scored the lowest it is being pursued by Council for other reasons, such as being able to provide space for cyclists whilst maintaining some parking and not impacting width for buses.

Other considerations identified for this section include;

- Confirming bus tracking around the Luxford Road/ Rintoul Street corner as well as vehicles turning left from Te Wharepouri Street into Rintoul Street
- Reducing the cycleway width, but providing a painted southbound cycle lane or buffer adjacent to parking to provide additional space for cyclists
- Separated cycleway towards town around corner from Luxford Street to where width allows
- Narrower cycle lane coming into junction but keep some sort of narrow green painted cycle lane to retain space for cyclists
- Vehicle tracking to be undertaken to identify pinch points

## 3.4 Luxford Street

Luxford Street is currently a two-lane road with parking permitted along the kerb. This road connects to the Berhampore Town Centre, with a speed limit of 50km/h on its eastern half and 30km/h on its western half on the approach to the town centre.



Key corridor information is included in Appendix A. Highlights for this section of the road include;

- Section length is approximately 200m
- Average carriageway width is 12.8m
- Five-day average daily traffic is approximately 8,200 vehicles
- Recorded 85<sup>th</sup> percentile speeds 44 km/hr
- Designated a Collector Road in the District Plan
- Section is essentially flat and has a straight alignment
- On-street parking on both sides of the road
- Some houses do not have off-street parking
- Speed limit decreases from 50km/h to 30km/h about 100m from the Adelaide Road intersection
- Relatively flat and straight alignment

	Option 1	Option 2	Option 3
Description	Separated cycleway both	Shared lane toward Island Bay,	Shared lanes both directions,
	directions, parking one side	separated cycleway toward	traffic calming, planting strip,
		City, parking both sides	30km/hr speed environment,
			parking both sides
Streetmix section	Option 1	Option 2	Option 3
Кеу	Protected facility for cyclists in	Protected facility for cyclists	Slower speed environment
differentiating	both directions improving	towards the City improving	improves safety for all road
factors	cyclist safety and uptake	cyclist safety, but facility in only	users including cyclists
		one direction so potentially	
	Parking adjacent to cycle lane	limited uptake	No impact on parking
	vehicles entering and exiting driveways across the cycle lane and requires pedestrians to cross cycle lane to access parking Some accommodation of high- priority parking on one side, will require a suitable parking scheme for the additional	High alignment with other planned works Unprotected cyclists required to ride adjacent to traffic and in car door zone with reduced safety and uptake No impact on parking	No specific cycling provision may reduce uptake for cyclists not confident to share with traffic Unprotected cyclists required to ride adjacent to traffic and in car door zone with reduced safety and uptake
	vehicles to be accommodated on the surrounding roads		Poor alignment with other road projects and transformational cycleway options
Weighted score	1.10	0.83	0.58
Rank	1	2	3

### Table 7 Luxford Street MCA Scores

Option 1 received the highest score during the MCA and feedback from the review of the draft report confirmed this option as the preferred option to progress to 30% design.

Other considerations identified for this section include;

- Parking and lane width to be retained as far as possible, with the inclusion of protected cycleways
- Further traffic calming required to slow vehicles turning on and off the route at the intersection of Luxford and Rintoul Streets
- Improvements to signal phasing to facilitate cyclists turning right on to Luxford Street
- Vehicle tracking to be undertaken to identify pinch points
- Maximising traffic lane width for optimised bus movement
- Usage of separators along section.

These will be considered in the 30% designs.

# 3.5 Adelaide Road Section 1 (Luxford Street to Britomart Street)

This part of the route refers to Adelaide Road Section 1 between Luxford Street and Britomart Street and includes the Berhampore Town Centre. This section is currently a two-lane road with parking permitted along the kerb. Sharrows are currently marked in both directions on this section.



Key corridor information is included in Appendix A. Highlights for this section of the road include;

- Section length is approximately 100m
- Average carriageway width is 9.6m. This width excludes the indented parking shown on the cross sections as this does not extend the full length of this section and therefore isn't able to provide a continuous cycle or vehicle lane. The indented parking is therefore retained in all options.
- Right turn bays are provided at the Britomart Street and Luxford Street intersections. This narrows in the central part of this section to a flush median as shown for the cross sections
- Five-day average daily traffic is approximately 15,200 vehicles
- Recorded 85<sup>th</sup> percentile speeds (39 km/hr) exceed the posted speed limit (30 km/hr)
- Designated a Principal Road in the District Plan
- On-street parking on the west side (with a clearway operating 7-9am on weekdays) and indented parking on the east side of the Town Centre
- Includes the Berhampore Town Centre
- Flat and straight alignment
- No bus stops along this section

### Table 8 Adelaide Road Section 1 (Luxford Street to Britomart Street) MCA Scores

	Option 1	Option 2
Description	Shared lane towards Island Bay, separated cycleway toward City, indented parking east side, reinforce 30 km/hr speed environment	Shared lanes both directions, traffic calming, 30 km/hr speed environment, raised pedestrian crossings, parking both sides (clearway on west side, indented on east side)
Streetmix section	Option 1	Option 2
Key differentiating factors	Protected facility for cyclists towards the City improving cyclist safety, but facility in only one direction so potentially limited uptake	Cyclists required to ride in traffic lane and in car door zone with reduced safety and uptake
	Slower speed environment improves safety for all road users including cyclists	Slower speed environment improves safety for all road users including cyclists
	Some impact on parking as only provided on one side of the road	Good alignment with targeted improvements projects
	Some impact on queuing space for Adelaide/Luxford intersection where a	No impact on parking
	clearway currently operates during the AM peak	General improvement to urban amenity for the Berhampore Town Centre
Weighted score	0.73	0.80
Rank	2	1

Option 2 received the highest score during the MCA. Feedback from the review of the draft report confirmed this option as the preferred option to progress to 30% design.

Other considerations identified for this section include;

- Lengthening of clearway hours and lane distribution to improve northbound traffic flow
- A phased approach from Option 2 to Option 1 to alleviate parking impact associated with Option 1
- Pedestrian improvements in Berhampore Town Centre
- Improvements to the right turn cycle movement onto Luxford Street.
- Add missing pedestrian leg to Britomart/Adelaide

These will be considered at 30% design.

# 3.6 Adelaide Road Section 2 (Britomart Street to North end of Wakefield Park)

This part of the route refers to Adelaide Road between Britomart Street and the northern end of Wakefield Park. This section is currently a two-lane road with parking permitted on both sides along the kerb.



Key corridor information is included in Appendix A. Highlights for this section of the road include;

- Section length is approximately 500m
- Average carriageway width is 9.6m
- Five-day average daily traffic is approximately 13,300 vehicles
- Recorded 85<sup>th</sup> percentile speeds (45 km/hr)
- Speed limit is mostly 50km/h reducing to 30km/h about 100m south of the Britomart Street intersection
- Designated a Principal Road in the District Plan
- On-street parking on both sides of the road
- Some houses do not have off-street parking
- A few destinations exist on this route, including a café, and shops
- Relatively flat and straight alignment. Generally uphill towards the city, although there is a short uphill section (11m long, approximately 9% gradient) just south of Chilka Street.

## Table 9 Adelaide Road Section 2 (Britomart Street to North end of Wakefield Park) MCA Scores

	Option 1	Option 2			
Description	Shared lane with edge line towards Island	Cycle lane towards Island Bay, separated			
	Bay, separated cycleway toward City,	cycleway toward City, remove all parking,			
	remove all parking, increased traffic lane	increased traffic lane width			
Streetmix	VIUIT Option 1	Option 2			
section	2am 200 an	Zem Costeneria Towards the city			
Key	Protected facility for cyclists towards the City	Protected facility for cyclists towards the City			
factors	Improving cyclist safety, but facility in only one direction so potentially limited uptake	Improving cyclist safety, with a dedicated facility toward Island Bay			
1001013					
	Reduced delay for traffic (including buses)	Downhill cycle lane (1.5m) has no physical			
	due to increased lane width	separation from vehicles			
	High alignment with other planned works	Reduced delay for traffic (including buses) due to increased lane width			
	Significant impact on parking availability with all on street parking removed. Some parking	Significant impact on parking availability with			
	expected to be accommodated on surrounding roads	all on street parking removed. Some parking expected to be accommodated on surrounding roads			
		Unseparated southbound (downhill) cycleway is at higher risk of illegal parking			
		High alignment with other planned works			
Weighted	0.83	1.08			
score					
Kank	4	1			

	Option 3	Option 4
Description	Separated cycleway in both directions, remove all parking	Shared lane towards Island Bay (downhill), separated cycleway towards City (uphill), parking east side
Streetmix section	Option 3	Option 4
Key differentiating factors	Protected facility for cyclists in both directions improving cyclist safety and uptake High alignment with planned works Significant impact on parking availability with all on street parking removed. Some parking expected to be accommodated on surrounding roads	Protected facility for cyclists riding towards the City improving safety, but facility in only one direction so potentially limited uptake Unprotected cyclists required to ride adjacent to traffic and in car door zone with reduced safety and uptake Some accommodation of high-priority parking on one side, will require a suitable parking scheme for the additional vehicles to be accommodated on the surrounding roads Least aligned with other planned works
Weighted score	1.08	0.93
Rank	1	3

Options 2 and 3 received the highest score during the MCA. These options are very similar, and a combination may be necessary to accommodate vehicle tracking paths and other requirements. Feedback from the review of the draft report identified Option 2 as the preferred option to progress to 30% design.

Other considerations identified for this section include;

- Providing a separated cycleway towards the city
- Where there is width available, use road reserve for cycleway inside parked cars but separated from the footpath
- Maintain separation all the way to Berhampore
- Provision of sharrows in lane toward Island Bay until the dip, after which, parking on eastern side removed to accommodate a painted cycle lane uphill
- How parking may be deterred in the unprotected cycle lane
- Extend traffic lane width as much as possible to accommodate improvements for buses

# 3.7 Adelaide Road Section 3 (Wakefield Park to Dee Street)

This part of the route refers to Adelaide Road between Wakefield Park and Dee Street (including the roundabout). This section is currently a two-lane road with parking permitted along the kerb.



Key corridor information is included in Appendix A. Highlights for this section of the road include;

- Section length is approximately 450m
- Average carriageway width is 12.3m
- Five-day average daily traffic is approximately 13,800 vehicles
- Recorded 85<sup>th</sup> percentile speeds (51 km/hr) exceed the posted speed limit (50 km/hr)
- Designated a Principal Road in the District Plan
- Average gradient is 5% uphill towards the city
- On-street parking on both sides of the road
- Several destinations along this road have variations in parking demand Wakefield Park, Island Bay Squash and Tennis Courts and Island Bay Skate Park and Playground.
- Relatively straight alignment

	Option 1	Option 2	Option 3
Description	Cycle lane towards Island Bay, separated cycleway towards the City, parking west side	Shared lane toward Island Bay (downhill), separated cycleway toward City (uphill), parking both sides, reduced traffic lane width	Cycle lanes in both directions, parking west side
Streetmix section	Coption 1		
Key differentiating factors	Protected facility for cyclists towards the City improving cyclist safety, with a dedicated facility toward Island Bay Downhill cycle lane has no physical separation from vehicles Some impact on parking as only provided on one side of the road High alignment with plans for corridor	Protected facility for cyclists in the uphill direction improving cyclist safety and uptake Minor speed differential with cyclists downhill Increased delay for traffic (including buses) due to reduced lane width Unprotected cyclists required to ride adjacent to traffic and in car door zone with reduced safety and uptake No impact on parking availability Least alignment with plans for corridor	Dedicated facility for cyclists in both directions improving cyclist uptake Cycle lanes have no physical separation from vehicles, particularly on west side where cyclists will be encouraged to ride in door zone Some impact on parking as only provided on one side of the road High alignment with plans for corridor
Weighted	1.03	0.73	0.63
Rank	1	2	3

### Table 10 Adelaide Road Section 3 (Wakefield Park to Dee Street) MCA Scores

Option 1 received the highest score during the MCA.

However, based on the feedback received Council have advised to proceed with Option 2 to 30% design. Although this option scored 2<sup>nd</sup> it is being pursued by Council for other reasons such as the retention of parking and consistency with similar corridors whilst providing protection for cyclists.

Other considerations identified for this section include;

- Extend traffic lane width as much as possible to accommodate improvements for buses
- Treatment of the pinch points created by the kerb build outs
- Managing conflict between cyclists and vehicle crossing the cycle path to use the bus turn around bay
- Whether a southbound cycle facility could be provided for the flatter section approaching Dee Street
- Entry and exit tapers for bus stops in this section.

These will be considered at 30% design.

# 4. Conclusions

This Multi Criteria Analysis (MCA) has been undertaken to identify recommended options for each section of the Newtown to Island Bay Transitional Cycleway project.

To assist with scoring the route was broken into seven sections to reflect the differences in road layout, gradient, character and design.

A number of constraints such as road width and traffic volumes limited the feasibility of long list options and assisted in eliminating options to arrive at the short list.

Each short-listed option was scored in accordance with the MCA criteria and scoring scale. The preferred option was generally the highest scoring in the MCA, although for several sections the preferred option is a combination of the two highest scoring options. In some cases, WCC have directed the preferred option due to reasons not accounted for in the scoring.

The recommended option identified by the MCA is;

- For cyclists travelling north towards the City
  - o Island Bay separated cycleway (existing)
  - o Separated cycleway up Adelaide Road to Britomart Street
  - Shared lane in the Berhampore Town Centre between Britomart Street and Luxford Street
  - Separated cycleway along Luxford Street
  - o Cycle lane up Rintoul Street to Wakefield Hospital
  - o Shared lane down Rintoul Street and along Riddiford Street
  - o Newtown to City separated cycleway (existing)
- For cyclists travelling south towards Island Bay
  - o Newtown to City separated cycleway (existing)
  - o Separated cycleway along Riddiford Street
  - o Cycle lane up Rintoul Street to Wakefield Hospital
  - o Shared lane down Rintoul Street
  - o Separated cycleway along Luxford Street
  - Shared lane in the Berhampore Town Centre between Luxford Street and Britomart Street
  - o Cycle lane along Adelaide Road to the start of Wakefield Park
  - o Shared lane down Adelaide Road
  - o Island Bay separated cycleway (existing)

Subject to Council's confirmation this will be progressed to 30% design.

# **Appendix A – Assessment criteria**

- Key corridor information
- Route and section layout showing existing road corridor
- MCA criteria and scoring application provided by WCC
- Scoring scale

### Table 11 Key corridor information

	Source	Riddiford Street (Mein Street to Rintoul Street)	Rintoul Street Section 1 - North of Wakefield Hospital	Rintoul Street Section 2 - South of Wakefield Hospital	
Approximate section length (m)	Measured on Google Maps	100m	600m	300m	
ONF category	Megamaps RtZ edition 1	City Hubs	Urban Connector	Activity Street	
WCC Road Hierarchy	WCC District Plan Map 33	Principal Road	Collector Road	Collector Road	
Mean operating speed	Megamaps RtZ edition 1	30-34	35-39	35-39	
Safe and Appropriate Speed	Megamaps RtZ edition 1	30	40	30	
WCC Posted Speed	WCC Website	40	50	50	
Recorded 85th Percentile speed (towards city (north/east bound))	WCC Traffic counts	39.3	26.5	45.6	
Recorded 85th Percentile speed (towards Island Bay (south/west bound)	WCC Traffic counts	35.1	36.4	49.5	
Average gradient (towards Island Bay)	Measured from WCC GIS	<2%	6%	-3%	
Peak hour bus frequency (in each direction)	Metlink	20 (Northbound stop only on this section)	6	6	
Average carriageway width	Measured on aerial photo	14.3m	8.8m	9.3m	
Two-way traffic volume (five- day ADT)	WCC Traffic counts	17,700	3,600	8,300	
Heavy vehicle proportion	WCC Traffic counts	7.2%	4.1%	6.6%	
Cycleway network classification	Paneke Pōneke - Bike Network Plan 2022	Primary	Primary	Primary	

	Source	Luxford Street	Adelaide Road Section 1 - Luxford Street to Britomart Street	Adelaide Road Section 2 - Britomart Street to North end of Wakefield Park	
Approximate section length (m)	Measured on Google Maps	200m	100m	500m	
ONF category	Megamaps RtZ edition 1	Activity Street	Activity Street	Urban Connector	
WCC Road Hierarchy	WCC District Plan Map 33	Collector Road	Principal Road	Principal Road	
Mean operating speed	Megamaps RtZ edition 1	<30	<30	35-39	
Safe and Appropriate Speed	Megamaps RtZ edition 1	30	30	40	
WCC Posted Speed	WCC Website	50 -30	30	30-50	
Recorded 85th Percentile speed (towards city (north/east bound))	WCC Traffic counts	44.5	37	45.7	
Recorded 85th Percentile speed (towards Island Bay (south/west bound)	WCC Traffic counts	43.2	40	45.1	
Average gradient (towards Island Bay)	Measured from WCC GIS	<2%	<2%	<2%	
Peak hour bus frequency (in each direction)	Metlink	6	No bus stops on this section	10	
Average carriageway width	Measured on aerial photo	12.8m	9.6m	9.6m	
Two-way traffic volume (five- day ADT)	WCC Traffic counts	8,200	15,200	13,300	
Heavy vehicle proportion	WCC Traffic counts	5.6%	5.6%	4.6%	
Cycleway network classification	Paneke Pōneke - Bike Network Plan 2022	Primary	Primary	Primary	

	Source	Adelaide Road Section 3 - Wakefield Park to Dee Street
Approximate section length (m)	Measured on Google Maps	450m
ONF category	Megamaps RtZ edition 1	Activity Street
WCC Road Hierarchy	WCC District Plan Map 33	Principal Road
Mean operating speed	Megamaps RtZ edition 1	40-44
Safe and Appropriate Speed	Megamaps RtZ edition 1	30
WCC Posted Speed	WCC Website	50
Recorded 85th Percentile speed (towards city (north/east bound))	WCC Traffic counts	51.8
Recorded 85th Percentile speed (towards Island Bay (south/west bound)	WCC Traffic counts	50.8
Average gradient (towards Island Bay)	Measured from WCC GIS	-5%
Peak hour bus frequency (in each direction)	Metlink	10
Average carriageway width	Measured on aerial photo	12.3m
Two-way traffic volume (five- day ADT)	WCC Traffic counts	13,800
Heavy vehicle proportion	WCC Traffic counts	7.0%
Cycleway network classification	Paneke Pōneke - Bike Network Plan 2022	Primary



MCA criteria and scoring application			Example of scoring application							
Criteria	Consideration	Facilities Measure	Comment	-3	-2	-1	0	1	2	3
<ol> <li>Improve safety, accessibility, attractiveness and convenience to encourage people to</li> </ol>	Improved safety for people cycling and using micro-mobility devices	Austroads Safe Systems Assessment cycling product		Reduction in SSA of 21 or more	Reduction in SSA of 11-20	Reduction in SSA of 4-10	No change	Improvement in SSA of 4-10	Improvement in SSA of 11-20	Improvement in SSA of 21 or more
choose cycling and micro-mobility devices	Improved convenience for people cycling and using micro-mobility devices	Austroads LOS Framework for cyclists and extent of protcted facility and how well the type of facility aligns to any existing and planned adjacent cycle infrastructure (including access to facilities)	Refer to Dutch Design Manual for Bicycle Traffic, section 4.3. Consider not only cohesion and directness, but also comfort and attractiveness.	Less efficient route, more difficult to pass slow cyclists, significantly slower and less comfortable.			No change			Easier, faster, smoother, more enjoyable.
<ol> <li>Improve safety, accessibility, attractiveness and convenience to encourage people to</li> </ol>	Improved safety for people walking and using mobility devices	Austroads Safe Systems Assessment pedestrian product		Reduction in SSA of 21 or more	Reduction in SSA of 10-20	Reduction in SSA of 4-10	No change	Improvement in SSA of 4-10	Improvement in SSA of 11-20	Improvement in SSA of 21 or more
choose waiking and mobility devices	Improved convenience for people walking and using mobility devices	Assessment of available pedestrian space	Consider not only cohesion and directness, but also comfort and cxattractiveness.	Removal of existing pedestrian path, removal of pedestrian crossing facility.		Bus stop bypasses impact footpath width at some locations	No change			Wider footpaths, increased pedestrian crossing priority and reduced delays at crossings
3. Improve bus experience and journey time compared to private vehicles	Improved travel time and experience of PT compared with private vehicles	Traffic capacity relative to public transport. Improvements such as bus jumps at intersections, bus stop rationalisation, bus stop layout improvements, as well as changes that reduce traffic lanes and increase general traffic time. Where a cycle lane crosses through the bus stop this would likely reduce travel time as bus passengers take longer to alight and disembark.		Traffic capacity increased relative to PT			No change or equal reduction in travel time		Bus priority at intersections, reduced traffic capacity	Bus stop rationalisation, bus priority at intersections, reduced traffic capacity
4. Retain high priorty parking and provide	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	Alignment with WCC Parking policy primary and secondary success measures. Increase or decrease in loading provisions for businesses	Need to assess impact of different type of parking using hierachy from policy. Eg. Removing mobility parking worse than commuter parking	Significant loss of high priority parking.		Loss of low-priority parking only	No change	Not used	Not used	Not used
transport alternatives	Provide alternatives to lost carparks (ie, provide car share, etc)	Provide alternatives: car share, public transport, other parking places.	Consider car park sharing, as well as car sharing parks, etc.	Not used	Not used	Not used	No change	Some loss of parking and ability to convert 1-10 parks from low-priority to bigh-	Some loss of parking and ability to convert 10+ parks from low-priority to bigh-	No loss of parking and ability to convert low-priority parking to high-priority parking.
5. Enables benefits to be delivered quickly with minimal disruption	Alignment with other planned works in the road corridor	Considering current and upcoming planned works recorded in open Corridor Access Requests (CARs), within the Wellington Forward Works Viewer and references by the project team.		Cycle priority will have to be removed to allow implementation of other planned works along the corridor with no ability to retain continous cycle provision during construction	Closure of part-time transport facilities during construction (e.g. peak hour bus lanes)		No change			Changes will make it easier to implement other planned works along the corridor whilst maintaining good LOS for sustainable modes
	Ability to deliver quickly and with less disruption compared with a typical transport project.	Scale of works required, any consenting or external approval requirements, lead times for key components or contracting staff. Reduced civil works, signals changes and other major works. Take into account political ease of delivery		Significant signal changes and carparking changes, etc. Specialist materials requiring long lead times. Enabling works such as removing kerbs.		Some changes to signals/carparks/kerbs that will slow delivery.	Typical project duration / disruption for a road-space reallocation project.	Only very minor changes to carparks, kerbs or other existing road layout, which are not considered significant.		Quick and easy delivery with minimal disruption. No changes to carparks, traffic signals or bus stops. No major work.
<ol> <li>Improve the place amenity in the area by considering comfort, connectivity and accessibility, composition and activation achieved.</li> </ol>	Improved urban amenity and expression of Mana Whenua values	Available space for place function enhancements such as street trees, seating, parklets, cycle parking (avoid hostile architecture) Separation of transportation modes (e.g. footpath, cycle lane, vehicle lane) Increase of biodiversity and habitat improvements for overall climate action response	Needs to be strategically assessed across entire CBD area and demographic development. "Place function enhancements" will differ from sub-urb to sub-urb, and the required space needing changes based on that	Reduction of available pedestrian space and footpaths, no use of sur- plus car-parks, increase of private vehicle use by increasing enabling structures (e.g. more car parks) and de-creasing public open spaces, increase of carbon footprint by not challenging "status quo", missed opportunities of community engagement and therefore loss of spatial quality	Identifying spatial opportunities (e.g. sur-plus car parks) but not following up on actions,	Identifying spatial opportunities (e.g. sur-plus car parks) but poorly executed spatial arrangement (e.g. min space requirement and accessibility standards) based on national and local govt regulations	No change	Find suitable spaces and improve their function/use and overall access, assess all existing functions, start creating an urban spatial network (e.g. key areas - what is missing, what is required for that space based on demographic and private/public use)	Link spatial elements, have a suite developed that identifies opportunities, Use of GNP (green network plan) and other strategic plans/policies (e.g. WSD, Wellington Design Manual)	Clear functional hierarchy of transportation modes (e.g. footpath, cycle lane, vehicle lane) and their intented use, widen footpaths/pedestrian areas to increase public open space, connect/link public spaces to create POI's, identify and use sur- plus vehicle areas to increase amenity spaces, provide exterior furniture elements for space enhancement, increase use of green elements (e.g. trees) with suitable foliage (provide shadow and cooling in summer, keep warmth during winter), assign clear functions to spaces, locate space enhancements in close proximity to public amenities (e.g. toilets, bus-stops), look at principles of the 15min city, look at principles of "livability"

Notes: Consderation should be given to fatal flaws, such as removing bus lanes, or causing significant safety issues.

### Scoring scale

Score	Benefits/disbenefits
3	Significantly achieves
2	Moderately achieves
1	Slightly achieves
0	Neutral
-1	Slightly reduces
-2	Moderately reduces
-3	Significantly reduces

### **Objective weightings**

Criteria	Consideration	Weight	Weight	
<ol> <li>Improve safety, accessiblity, attractiveness and convenience to</li> </ol>	Improved safety	20.0%	409/	
encourage people to choose cycling and micro-mobility devices	Improved convenience, comfort and attractiveness	20.0%	40%	
2. Improve safety, accessiblity, attractiveness and convenience to	Improved safety	10.0%	150/	
encourage people to choose walking and mobility devices	Improved convenience	5.0%	1370	
3. Improve bus experience and journey time compared to private vehicles	Improved bus speed and reliablity	15.0%	15%	
4. Retain high priorty parking and provide	Retain high priority parking (e.g., short term and loading followed by residential).	7.5%	15%	
transport alternatives	Mitigate parking impact (e.g., car share options, etc)	7.5%	1370	
5. Enables benefits to be delivered	Alignment with other planned works in the road corridor	5.0%	10%	
quickly with minimal disruption	Reduced civil works, signals changes and other major changes	5.0%	jo j	
6. Improve the place amenity in the area by considering comfort, connectivity and accessibility, composition and activation achieved.	Provides opportunities for improved urban amenity	5.0%	5%	
	Total weights	100%	100%	

# Appendix B – Riddiford Street options and MCA table

- Options
- Options excluded from the shortlist
- MCA Ranking



Riddiford	Street	options	excluded	from	short	list	assessment
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Long list opportunities	Reason for exclusion from short list
Do Nothing	Refer Section 2.4.
Alternate routes	Refer Section 2.4
Sealed shoulders	Refer Section 2.4
Bidirectional cycleway	The cycleway does not connect with Newtown to City transitional cycleway or any option on Rintoul Street.
Shared path	This route is intended to form key parts of the cycle network with high cyclist volumes. This is not compliant with Austroads and Waka Kotahi guidance for shared paths.
Change in road space through kerb realignment.	The transitional cycleways are intended to require minimum physical works and ability to amend or reinstate if required.
Central traffic path	Considered fatal flaw as high traffic volumes mean a significant proportion of drivers will be required to pass opposing vehicles. This results in significant delays and frequent encroachment into the cycle space.
Removal of right turn bays for Rintoul Street and Mein Street	High turning and opposing traffic volumes would result in significant network delays including bus routes along Rintoul Street and Riddiford Street.

#### Newtown to Island Bay (Riddiford Street) MCA ranking

Criteria	Consideration	Option 1	Option 2	Option 3	Option 4	Option 5
	Description	Separated cycleway both directions, remove all parking	On road cycle lanes in both directions, wider northbound bus lane, remove all parking	Separated cycleway toward Island Bay, Shared bike/bus lane towards City, wider traffic lanes, remove all parking	Shared lanes both directions, parking one side, traffic calming, reduced speed environment, wider traffic lanes	Separated cycleway both directions wider traffic lanes, remove all parking
Bus stop (2.5m), traf	Dimensions (from left to right towards the City, 14.3m total) fic lane (2.0m), traffic lane (2.5m), turning lane (2.5m), traffic lane (2.8m), parking (2.0m)	Separated cycleway (1.6m), buffer (0.4m), traffic lane (2.5m), traffic lane (2.5m), turning lane (2.5m), traffic lane (2.8m), buffer (0.4m), separated cycleway (1.6m)	Cycle lane (1.6m), bus lane (3.0m), traffic lane (2.8m), turning lane (2.5m), traffic lane (2.8m), cycle lane (1.6m),	Shared bus/bike lane (3.2m), traffic lane (3.0m), turning lane (3.0m), traffic lane (3.0m), buffer (0.4m), separated cycleway (1.7m)	Bus stop (2.5m), traffic lane (3.5m), Turning lane (3.0m), traffic lane (3.2m), Parking (2.1m)	Separated cycleway (1.8m), buffer (0.4m), traffic lane (3.5m), turning lane (3.0m), traffic lane (3.4m), buffer (0.4m), separated cycleway (1.8m),
1 Improve safety, accessibility and convenience for	Improved safety for people cycling and using micro-mobility devices	3	1	2	2	3
people cycling and using micro-mobility devices	Improved convenience for people cycling and using micro-mobility devices	2	2	2	0	2
2. Improve safety, accessiblity and convenience for	Improved safety for people walking and using mobility devices	0	0	0	1	0
people walking and using mobility devices	Improved convenience for people walking and using mobility devices	0	0	0	0	0
3. Improve bus speed and reliabilty	Improved travel time of PT compared with private vehicles	0	2	2	1	1
	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	-3	-3	-3	-2	-3
4. Retain high phorty parking and mitigate parking impact	Mitigate parking impact (ie, provide car share, etc)	0	0	0	1	0
5. Enables benefits to be delivered quickly with minimal disruption	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	2	1	1	0	2
	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.	3	3	3	2	3
6. Improve the place amenity in the area	Improved urban amenity	1	1	1	0	1
	Weighted Score	1.08	0.93	1.13	0.68	1.23
	Rank	3	4	2	5	1

Comments
Refer SSA. Speed environment is already 40km/hr reducing the impact of Option 3 on crash severity
Options 1 & 5 separate cyclists in both directions from traffic, Option 3 separate cyclists in one direction (toward IB) from traffic. Option 2 provides continuous facility in both directions
Refer SSA
No change to footpath width
Option 2 provides a dedicated bus lane, improving bus movements. Option 3 provides a dedicated shared bike/bus, improving bus movement. Other than Option 1 all options increase traffic lane width improving bus
movement
Options 1, 2, 3 and 5 remove all carparks with priority parking partially relocated to side roads. Survey anticipated to show, priority parking can be partially reallocated to one side (option 4), and surrounding streets
Parking surveys shows some parking demand can only partially be accomodated with parking along one side of the road only (Option 4), and there are few side roads for alternate parking (Options 1, 2, 3 & 5)
Options 5 and 3 continue likely Option & align with Newtown to City route, as well as connect to Luxford/Adelaide options
Additional speed controls required for Option 4, will require transitions for

shared lanes (Option 3 & 4) and cycleways and cycle lanes All options with separate cycle space contribute to urban spatial framework

# Appendix C – Rintoul Street Section 1 (North of Wakefield Hospital) options and MCA table

- Options
- Options excluded from the shortlist
- MCA Ranking



# Rintoul Street Section 1 (North of Wakefield Hospital) options excluded from short list assessment

Long list opportunities	Reason for exclusion from short list
Do Nothing	Refer Section 2.4.
Alternate routes	Refer Section 2.4
Sealed shoulders	Refer Section 2.4
Bidirectional cycleway	Insufficient width to accommodate this within the road corridor while maintaining traffic lanes, additionally it does not connect with any other option along the route.
Shared path	This route is intended to form key parts of the cycle network with high cyclist volumes. This is not compliant with Austroads and Waka Kotahi guidance for shared paths.
Change in road space through kerb realignment.	The transitional cycleways are intended to require minimum physical works and ability to amend or reinstate if required.
Central traffic path	Considered fatal flaw as high traffic volumes mean a significant proportion of drivers will be required to pass opposing vehicles. This results in significant delays and frequent encroachment into the cycle space.
One way Rintoul Street and Adelaide Road between Berhampore and Newtown, more space for other users	Previously considered as part of Newtown Connections, ruled out as significant network changes are beyond the transitional cycleway scope and Greater Wellington Regional Council as this separates the bus stop pairs too much.
Modal filter applied along Rintoul Street allowing only buses and cyclists (no cars, except exempted residents) near the top of the hill	Ruled out as significant network changes are out of scope for the transitional cycleways project.
Shared lanes in both directions	Speed differential and road width on this route make manoeuvring difficult and unsafe for cyclists and vehicles. Shared lanes will tend to draw cyclists more into the lane.

### Newtown to Island Bay (Rintoul Street Section 1, North of Wakefield Hospital) MCA ranking

Criteria	Consideration	Option 1	Option 2	Option 3	Option 4
	Description	Separated cycleway towards Island Bay (uphill), Shared Iane towards City (downhill), no parking, increased traffic Iane width	Separated cycleway towards Island Bay (uphill), Shared lane towards City (downhill), parking west side	On road cycle lane towards Island Bay (uphill), shared lane towards City (downhill), parking west side	On road cycle lanes both directions, no parking, increased traffic lane width
	Dimensions (from left to right towards the City, 8.8m total) Parking (1.9m), two-way traffic lane (5.0m), Parking (1.9m)	Shared lane (3.3m), traffic lane (3.3m), buffer (0.4m), separated cycleway (1.8m)	Parking (1.9m), two-way traffic lane (5.0m), buffer (0.4m), separated cycleway (1.5m)	Parking (1.9m), two-way traffic lane (5.5m), cycle lane (1.4m)	Cycle lane (1.5m), two-way traffic lane (5.7m), cycle lane (1.6m)
1. Improve safety, accessibility and convenience for	Improved safety for people cycling and using micro-mobility devices	2	2	1	1
people cycling and using micro-mobility devices	Improved convenience for people cycling and using micro-mobility devices	2	1	1	2
2. Improve safety, accessibility and convenience for	Improved safety for people walking and using mobility devices	0	0	0	0
people walking and using mobility devices	Improved convenience for people walking and using mobility devices	R	0	0	0
3. Improve bus speed and reliability	Improved travel time of PT compared with private vehicles	1	-1	0	0
	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	-3	-2	-2	-3
4. Retain high priorty parking and mitigate parkin impact	Mitigate parking impact (ie, provide car share, etc)	0	2	2	0
5. Enables benefits to be delivered quickly with	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	1	1	1	1
minimal disruption	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.	3	3	3	3
6. Improve the place amenity in the area	Improved urban amenity	1	1	1	1
	Weighted Score	0.98	0.70	0.65	0.63
	Rank	1	2	3	4

Exact dimensions to be confirmed during detailed design

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Refer SSA.

Options 1 & 2 separate cyclists in one direction (uphill) from traffic, Option 3 provides continuous facility in both directions

Refer SSA

No change to footpath width

Options 1, 3 & 4 increase traffic lane width, improving bus movements High prioirty parking along this route, some parking maybe reallocated to sorrounding streets

High priority parking along this route - majority long-parkers. Parking surveys show that parking can only be partially accomodated on one side of the road. Sorrounding streets are heavily occupied, with limited ability to reallocate from Rintoul

Option 1 likely option for adjacent sections and continuity onto Newtown to City transitional cycleway

Shared lanes will need a transitions All options contribute to urban spatial framework

# Appendix D – Rintoul Street Section 2 (South of Wakefield Hospital) options and MCA table

- Options
- Options excluded from the shortlist
- MCA Ranking



Long list opportunities	Reason for exclusion from short list
Do Nothing	Refer Section 2.4.
Alternate routes	Refer Section 2.4
Sealed shoulders	Refer Section 2.4
Bidirectional cycleway	Insufficient width to accommodate this within the road corridor while maintaining traffic lanes, additionally bollards mean there is no space for a bus to pull over and pass opposing vehicles and the cycleway does not connect with any other option along the route.
Shared path	This route is intended to form key parts of the cycle network with high cyclist volumes. This is not compliant with Austroads and Waka Kotahi guidance for shared paths.
Change in road space through kerb realignment.	The transitional cycleways are intended to require minimum physical works and ability to amend or reinstate if required. This excluded widening to provide sufficient width for separated cycleways while retaining parking on both sides of the road.
One way Rintoul Street and Adelaide Road between Berhampore and Newtown, more space for other users	Previously considered as part of Newtown Connections, ruled out as significant network changes are beyond the transitional cycleway scope and Greater Wellington Regional Council as this separates the bus stop pairs too much.
Modal filter applied along Rintoul Street allowing only buses and cyclists (no cars, except exempted residents) near the top of the hill	Ruled out as significant network changes are out of scope for the transitional cycleways project.
Central traffic path	Considered fatal flaw as high traffic volumes mean a significant proportion of drivers will be required to pass opposing vehicles. This results in significant delays and frequent encroachment into the cycle space.

### Rintoul Street (South of Wakefield Hospital) options excluded from short list assessment

#### Newtown to Island Bay (Rintoul Street Section 2, South of Wakefield Hospital) MCA ranking

Criteria	Consideration	Option 1	Option 2	Option 3	Option 4	Option 5
	Description	Shared lane toward Island Bay (downhill), separated cycleway toward City (uphill), no parking, increased traffic lane width	Shared lane toward Island Bay (downhill), cycle lane toward City (uphill), parking east side	Shared lanes both directions, traffic calming, 30km/hr speed environment, parking both sides	On road cycle lane toward Island Bay (downhill), separated cycleway toward City (uphill), no parking	Shared lane toward Island Bay (downhill), separated cycleway toward City (uphill), parking east si
	Dimensions (from left to right towards the City, 9.3m total) Parking (1.9m), two-way traffic lane (5.5m), Parking (1.9m)	Separated cycleway (1.9m), buffer (0.4m), traffic lane (3.5m), shared lane (3.5m)	Cycle lane (1.6m), two-way traffic lane (5.7m), parking (2.0m)	Parking (1.9m), two-way traffic lane (5.5m), Parking (1.9m)	Separated cycleway (1.6m), buffer (0.4m), two-way traffic lane (5.7m), cycle lane (1.6m),	Separated cycleway (1.5m), buffer (0.4m), two-way traffic lane (5.5m) parking (1.9m)
	Improved safety for people cycling and using micro-mobility devices	3	1	2	3	2
<ol> <li>Improve safety, accessibility and convenience for people cycling and using micro-mobility devices</li> </ol>	Improved convenience for people cycling and using micro-mobility devices	1	1	0	2	2
2 Improve safety, accessibility and convenience for	Improved safety for people walking and using mobility devices	0	0	1	0	0
people walking and using mobility devices	Improved convenience for people walking and using mobility devices	0	0	0	0	0
3. Improve bus speed and reliability	Improved travel time of PT compared with private vehicles	1	0	0	0	-1
4. Retain high priorty parking and mitigate parking impact	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	-3	-2	0	-3	-2
	Mitigate parking impact (ie, provide car share, etc)	0	2	3	0	2
5. Enables benefits to be delivered quickly with	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	1	1	0	0	1
minimal disruption	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.	3	3	2	3	3
6. Improve the place amenity in the area	Improved urban amenity	1	1	0	1	1
	Weighted Score	0.98	0.65	0.83	0.98	0.90
	Rank	1	5	4	2	3

Exact dimensions to be confirmed during detailed design

	Comments
è	
	Refer SSA.
	Options 1 & 2 separate cyclists in one direction (uphill) from traffic, Option 3 provides continuous facility in one direction only (uphill)
	Refer SSA
	No change to footpath width
	Options 1 increases traffic lane width, improving bus movements, Options 3 and 5 reduce lane width but Option 3 has overall slower speed environment
	High priority parking along this route - majority long-parkers. Parking surveys show limited ability to accommodate parking on one side of the road. Sorrounding streets are heavily occupied, with limited ability to reallocate from Rintoul
	As above
	Option 1 & 2 likely continue option for Luxford, into Adelaide, connecting into larger route and allowing continuity

Additional works required for traffic calming Options 1, 2, 4 & 5 contribute to urban spatial framework, Option 3 has limited change to existing environment

# Appendix E – Luxford Street options and MCA table

- Options
- Options excluded from the shortlist
- MCA Ranking



Luxford Street	options	excluded	from :	short	list	assess	sment
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Long list opportunities	Reason for exclusion from short list
Do Nothing	Refer Section 2.4.
Alternate routes	Refer Section 2.4
Sealed shoulders	Refer Section 2.4
Shared path	This route is intended to form key parts of the cycle network with high cyclist volumes. This is not compliant with Austroads and Waka Kotahi guidance for shared paths.
Bidirectional cycleway	Cycleway does not connect with any other option for adjacent sections.
On road cycle lanes	Traffic volumes are too high to safely accommodate these lanes, sufficient width to accommodate better options
Change in road space through kerb realignment.	The transitional cycleways are intended to require minimum physical works and ability to amend or reinstate if required. This excluded widening to provide sufficient width for separated cycleways while retaining parking on both sides of the road.
One way Rintoul Street and Adelaide Road between Berhampore and Newtown, more space for other users	Previously considered as part of Newtown Connections, ruled out as significant network changes are beyond the transitional cycleway scope and Greater Wellington Regional Council as this separates the bus stop pairs too much.
Central traffic path	Considered fatal flaw as high traffic volumes mean a significant proportion of drivers will be required to pass opposing vehicles. This results in significant delays and frequent encroachment into the cycle space.

### Newtown to Island Bay (Luxford Street) MCA ranking

Criteria	Consideration	Option 1	Option 2	Option 3	Comm
	Description	Separated cycleway both directions, parking one side	Shared lane toward Island Bay, separated cycleway toward City, parking both sides	Shared lanes both directions, traffic calming, planting strip, 30km/hr speed environment, parking both sides	
	Dimensions (from left to right towards the City, 12.8m total) Parking (2.0m), traffic lane (4.4m), traffic lane (4.4m), Parking (2.0m)	Separated cycleway (1.8m), buffer (0.4m), traffic lane (3.0m), traffic lane (3.0m), parking (2.0m), buffer (0.8m), Separated cycleway (1.8m)	Separated cycleway (1.7m), buffer (0.8m), parking (2.0m), traffic lane (3.2m), traffic lane (3.1m), parking (2.0m),	Parking (2.0m), traffic lane (3.5m), planting strip (1.8m) traffic lane (3.5m), Parking (2.0m)	
1. Improve safety, accessibility and convenience for	Improved safety for people cycling and using micro-mobility devices	2	1	1	Refer SS
people cycling and using micro-mobility devices	Improved convenience for people cycling and using micro-mobility devices	2	1	0	Option 1 provides
2 Improve safety, accessibility and convenience for	Improved safety for people walking and using mobility devices	0	0	1	Refer SS
2. Improve safety, accessibility and convenience for people walking and using mobility devices	Improved convenience for people walking and using mobility devices	0	0	0	No char
3. Improve bus speed and reliability	Improved travel time of PT compared with private vehicles	0	0	0	No impa
4. Retain high priorty parking and mitigate parking	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	0	0	0	Option 1 surround
impact	Mitigate parking impact (ie, provide car share, etc)	0	3	3	Parking s parking a surround
5. Enables benefits to be delivered quickly with	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	2	1	0	Option 2
minimal disruption	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.	3	2	-1	Addition Option 3 Option 2
6. Improve the place amenity in the area	Improved urban amenity	1	1	2	All options signification of the second seco
	Weighted Score	1.10	0.83	0.58	
	Rank	1	2	3	

#### SSA

1 provides dedicated separated cycleways for both directions. Option 2 es continuous facility in the uphill direction.

### SSA

ange to footpath width

#### pact noted

1 removes parking on north side, reallocates priority parking to nding roads

surveys-show parking demand can only partially be accomodated with g along one side of the road only (Option 1). On weekends Luxford and nding streets are heavily occupied.

2 continue likely Option for Adelaide Rd and connect into Rintoul street

anal speed controls and disruption to create planting area required for 3

2 requires additional tie in works at either end and other changes tions contribute to urban spatial framework, Option 2 provides cant opportunity for space reallocation

# Appendix F – Adelaide Road Section 1 (Luxford Street to Britomart Street) options and MCA table

- Options
- Options excluded from the shortlist
- MCA Ranking



Long list opportunities	Reason for exclusion from short list
Do Nothing	Refer Section 2.4.
Alternate routes	Refer Section 2.4
Sealed shoulders	Refer Section 2.4
Bidirectional cycleway	Ruled out as insufficient width.
Shared path	This route is intended to form key parts of the cycle network with high cyclist volumes. This is not compliant with Austroads and Waka Kotahi guidance for shared paths.
Change in road space through kerb realignment.	The transitional cycleways are intended to require minimum physical works and ability to amend or reinstate if required. This excluded widening to provide sufficient width for separated cycleways while retaining parking on both sides of the road.
Central traffic path	Considered fatal flaw as high traffic volumes mean a significant proportion of drivers will be required to pass opposing vehicles. This results in significant delays and frequent encroachment into the cycle space.
Shared lane toward Island Bay with a narrow flush median and a separated cycleway toward the City, with increased traffic lane width	This option physically does not work in this section and indented parking cannot be removed.
On road cycle lanes in both directions with increased traffic lane widths and no parking	This option cannot be accommodated without the removal of indented parking, which is not practical.
On road cycle lanes in both directions with reduced traffic lane widths and parking on east side	Not sufficient separation from parked vehicles riding in door zone.
Separated cycleways in both directions	This option is too narrow, and bollards mean there is no space for a bus to pull over and pass opposing vehicles.

### Adelaide Road (Berhampore Town Centre) options excluded from short list assessment

	,	0		
Criteria	Consideration	Option 1	Option 2	Commen
	Description	Shared lane towards Island Bay, separated cycleway toward City, parking east side, reinforce 30 km/hr speed environment	Shared lanes both directions, traffic calming, flush median, 30 km/hr speed environment, raised pedestrian crossings, parking both sides (clearway on west side)	
Parking (2.0	Dimensions (from left to right towards the City, 9.6m total excluding indented parking) )m), traffic lane (3.0m), flush median (1.3m), traffic lane (3.3m), indented parking (3.0m)	Separated cycleway (1.6m), buffer (0.4m), traffic lane (3.0m), flush median (1.3m), shared lane (3.3m), indented parking (3.0m)	Parking (2.0m), shared lane (3.0m), flush median (1.3m), shared lane (3.3m), indented parking (3.0m)	
<ol> <li>Improve safety, accessiblity and convenience for people cycling and using micro-mobility devices</li> </ol>	Improved safety for people cycling and using micro-mobility devices	2	2	Refer SSA. C scoring appl
	Improved convenience for people cycling and using micro-mobility devices	1	0	direction
2. Improve safety, accessiblity and convenience for people walking and using mobility devices	Improved safety for people walking and using mobility devices	1	1	Refer SSA
	Improved convenience for people walking and using mobility devices	0	0	No change t
3. Improve bus speed and reliabilty	Improved travel time of PT compared with private vehicles	0	0	
4. Retain high priorty parking and mitigate parking	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	-3	0	Option 1 rem side and side
Impact	Mitigate parking impact (ie, provide car share, etc)	0	0	
5. Enables benefits to be delivered quickly with	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	2	2	
minimal disruption	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.	2	3	Option 1 rem
6. Improve the place amenity in the area	Improved urban amenity	1	1	Options 1 ar
	Weighted Score	0.73	0.80	
	Rank	2	1	

### Newtown to Island Bay (Adelaide Road Section 1 - Luxford Street to Britomart Street) MCA ranking

Dption 1 had a lower score but not enough to reflect in the MCA lication arates only one direction of cyclists from traffic, Uption 2 in neitner

### to footpath width

noves all carparks on one side with priority parking relocated to other roads

noves all parking on the west side- Difficult for consultation nd 2 contribute to urban spatial framework

# Appendix G – Adelaide Road Section 2 (Britomart Street to North end of Wakefield Park) options and MCA table

- Options
- Options excluded from the shortlist
- MCA Ranking



## Adelaide Road (Berhampore Town Centre to Wakefield Park) options excluded from short list assessment

Long list opportunities	Reason for exclusion from short list
Do Nothing	Refer Section 2.4.
Alternate routes	Refer Section 2.4
Sealed shoulders	Refer Section 2.4
Shared path	This route is intended to form key parts of the cycle network with high cyclist volumes. This is not compliant with Austroads and Waka Kotahi guidance for shared paths.
Bidirectional cycleway	Ruled out as insufficient width, conflicts with bus stops without width to address the conflict. Additionally, the cycleway does not connect with any other option for on Rintoul Street.
Change in road space through kerb realignment.	The transitional cycleways are intended to require minimum physical works and ability to amend or reinstate if required. This excluded widening to provide sufficient width for separated cycleways while retaining parking on both sides of the road.
Central traffic path	Considered fatal flaw as high traffic volumes mean a significant proportion of drivers will be required to pass opposing vehicles. This results in significant delays and frequent encroachment into the cycle space.
Shared lane toward Island Bay with a separated cycleway toward the City, with parking on the east side	Ruled out as high traffic volumes and operating speeds > 40 km/h, additionally cyclists required to ride adjacent to parked vehicles.
On road cycle lanes in both directions, parking east side with reduced traffic lane width	Ruled out as there is insufficient cyclist separation from parked vehicles riding in the door zone.
Shared lanes in both directions	Speeds on this route are likely to only be reduced to about 40 km/h which is above the safe speed for shared lanes for cyclists.

### Newtown to Island Bay (Adelaide Road Section 2 - Britomart Street to North end of Wakefield Park) MCA ranking

Criteria	Consideration	Option 1	Option 2	Option 3	Option 4
	Description	Shared lane with edge line towards Island Bay, separated cycleway toward City, remove all parking, increased traffic lane width	Cycle lane towards Island Bay, separated cycleway toward City, remove all parking, increased traffic lane width	Separated cycleway in both directions, remove all parking	Shared lane towards Island Bay (downhill), separated cycleway towards City (uphill), parking east side
	Dimensions (from left to right towards the City, 9.6m total) Parking (2.0m), two-way traffic lane (5.7m), parking (1.9m)	Separated cycleway (2.2m), buffer (0.4m), traffic lane (3.5m), shared lane (3.5m)	Separated cycleway (1.7m), buffer (0.4m), traffic lane (3.0m), traffic lane (3.0m), cycle lane (1.5m),	Separated cycleway (1.6m), buffer (0.4m), two-way traffic lane (5.6m), buffer (0.4m), separated cycleway (1.6m)	Separated cycleway (1.6m), buffer (0.4m), two-way traffic lane (5.7m), parking (1.9m)
1. Improve safety, accessibility and convenience for	Improved safety for people cycling and using micro-mobility devices	2	3	3	2
people cycling and using micro-mobility devices	Improved convenience for people cycling and using micro-mobility devices	1	2	2	1
2. Improve safety, accessibility and convenience for people walking and using mobility devices	Improved safety for people walking and using mobility devices	0	0	0	0
	Improved convenience for people walking and using mobility devices	0	0	0	0
3. Improve bus speed and reliability	Improved travel time of PT compared with private vehicles	1	0	0	0
4. Retain high priorty parking and mitigate parking	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	-3	-3	-3	-1
inpact	Mitigate parking impact (ie, provide car share, etc)	0	0	0	2
5. Enables benefits to be delivered quickly with	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	2	2	2	1
minimal disruption	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.	3	3	3	3
6. Improve the place amenity in the area	Improved urban amenity	1	1	1	1
	Weighted Score	0.83	1.08	1.08	0.93
	Rank	4	1	1	3

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Refer SSA. Option 3 has reduction in SSA of 32, Option 2 has reduction in SSA of 24 so both scree 3 for this criteria even though intuitively Option 3 would be safer than Option 2

Options 1 and 4 separate only one direction of cyclists from traffic. Options 2 & 3 provides continuous facility in both directions

Refer SSA

No change to footpath width

Option 1 increases traffic lane width, improve bus movements

Options 1, 2 & 3 remove all carparks with priority parking partially relocated to side roads, Option 4 reallocates some priority parking across/along the road

Parking surveys expected to show parking demand can be accommodated with parking along one side of the road only (Option4)

Options 1 likely Option for Adelaide S1 and Luxford - continutity

Option 4 may required transition into shared lanes Uption 3, 2 & 3 removes all parking, difficult for consultation Option 3 reduces speed environment for all users which is likely to be percieved as delay

All Options contribute to urban spatial framework

# Appendix H – Adelaide Road Section 3 (Wakefield Park to Dee Street) options and MCA table

- Options
- Options excluded from the shortlist
- MCA Ranking



Adelaide Road	(Wakefield P	Park to Dee Street	options excluded	from short list assessment
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Long list opportunities	Reason for exclusion from short list
Do Nothing	Refer Section 2.4.
Alternate routes	Refer Section 2.4
Sealed shoulders	Refer Section 2.4
Shared path	This route is intended to form key parts of the cycle network with high cyclist volumes. This is not compliant with Austroads and Waka Kotahi guidance for shared paths.
Bidirectional cycleway	Ruled out as it does not connect with Island Bay cycleway or any option for the other Adelaide Road sections.
Change in road space through kerb realignment.	The transitional cycleways are intended to require minimum physical works and ability to amend or reinstate if required. This excluded widening to provide sufficient width for separated cycleways while retaining parking on both sides of the road.
Central traffic path	Considered fatal flaw as high traffic volumes mean a significant proportion of drivers will be required to pass opposing vehicles. This results in significant delays and frequent encroachment into the cycle space.
Separated cycleways in both directions, flush median and removal of all parking	Ruled out as the on-street parking is linked to the resource consent for Wakefield Park and cannot be removed without providing an alternative.
Shared lanes in both directions	Speeds on this route are likely to only be reduced to about 40 km/h which is above the safe speed for shared lanes for cyclists.

### Newtown to Island Bay (Adelaide Road Section 3 - Wakefield Park to Dee Street) MCA ranking

Criteria	Consideration	Option 1	Option 2	Option 3	Comr
	Description	Cycle lane towards Island Bay, separated cycleway towards the City, parking west side	Shared lane toward Island Bay (downhill), separated cycleway toward City (uphill), parking both sides, reduced traffic lane width	Cycle lanes in both directions, parking west side	
Р	Dimensions (from left to right towards the City, 12.3m total) arking (2.5m), traffic lane (3.2m), flush median (0.9m), traffic lane (3.2m), parking (2.5m)	Separated cycleway (1.7m), buffer (0.8m), parking (2.0m), traffic lane (3.0m), traffic lane (3.0m), cycle lane (1.8m)	Separated cycleway (1.7m), buffer (0.8m),parking (2.0m), two-way traffic lane (5.8m), parking (2.0m)	Parking (2.0m), buffered cycle lane (2.1m), traffic lane (3.2m), traffic lane (3.2m), cycle lane (1.8m)	
1. Improve sefety, assessibility and convenience for	Improved safety for people cycling and using micro-mobility devices	2	1	1	Refer SS
<ol> <li>Improve safety, accessibility and convenience for people cycling and using micro-mobility devices</li> </ol>	Improved convenience for people cycling and using micro-mobility devices	2	1	1	Options parked directic
2. Improve safety, accessiblity and convenience for	Improved safety for people walking and using mobility devices	0	0	0	Refer S
people walking and using mobility devices	Improved convenience for people walking and using mobility devices	0	0	0	No char
3. Improve bus speed and reliabilty	Improved travel time of PT compared with private vehicles	0	-1	0	Option traffic
4. Retain high priorty parking and mitigate parking	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	-2	0	-2	Option roads, (
impact	Mitigate parking impact (ie, provide car share, etc)	1	3	1	Parking parking during
5. Enables benefits to be delivered quickly with	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	2	1	2	Options likely op
minimal disruption	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.	3	3	3	
6. Improve the place amenity in the area	Improved urban amenity	1	1	1	Option
	Weighted Score	1.03	0.73	0.63	
	Rank	1	2	3	

#### SSA

Is 1 & 3 separate cyclists in both directions from traffic (option 3 between d cars and traffic lane though), Option 2 provides continuous facility in one on only

#### SSA

ange to footpath width

n 2 reduces road width making it hard for buses to pass opposing

1 removes all carparks with priority parking partially relocated to side Option 2 reallocate some priority parking across/along the road.

g surveys expected to show parking demand can be accommodated with g along one side of the road only (Option 3), there is a potential for issues sporting events.

as 1 and 3 connect with Island Bay cycleway treatment and also continue option for rest of Adelaide Road

ns 1, 2 and 3 contribute to urban spatial framework

### Absolutely Positively **Wellington** City Council

Me Heke Ki Pōneke

https://wellington.govt.nz/parking-roads-andtransport/transport/cycling