Wellington City Urban Cycleways Programme

Design Report: Miramar Connections

August 2017

Absolutely Positively **Wellington** City Council
Me Heke Ki Pōneke

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1. Introduction

1.1 Introduction

The Wellington City Cycleways Programme aims to create a sustainable, liveable and attractive city that offers choices about how to travel, with an appealing cycle network that encourages people of all ages and abilities to cycle.

The Miramar Connections project is being proposed to make it safer and more convenient for people on bikes and those on foot to get around. The cycleway routes provides connections to key destinations across the Miramar Peninsula and link to routes on Cobham Drive and through Kilbirnie that provide connections to the Wellington CBD.

1.2 Background

In 2014, the Prime Minister announced $100 million additional funding for the New Zealand Urban Cycleways Fund (UCF). The aim of this funding is to accelerate completion of urban cycle networks and achieve a step-change in cycling participation. The Council was successful in securing $9.5 million of that fund and has approved Long-term Plan (LTP) allocated 'match funding'. Further match funding has been made available from the National Land Transport Fund (NLTF) administered by the NZ Transport Agency. In total, $37.25 million will be invested in cycling in Wellington City over a four year period (to 30 June 2019).

The Council's approach is set out in the Cycleways Programme Master Plan adopted by the Council in September 2015 and the Wellington Cycle Network Programme Business Case. The aim is for the Council's investment to contribute towards cycling becoming "safer and more convenient"[1] by increasing the level of service for people who use bikes.

The Wellington City Cycleways Programme was initially focused in three main areas: Ngauranga - CBD, Central City/ CBD and Eastern Suburbs.

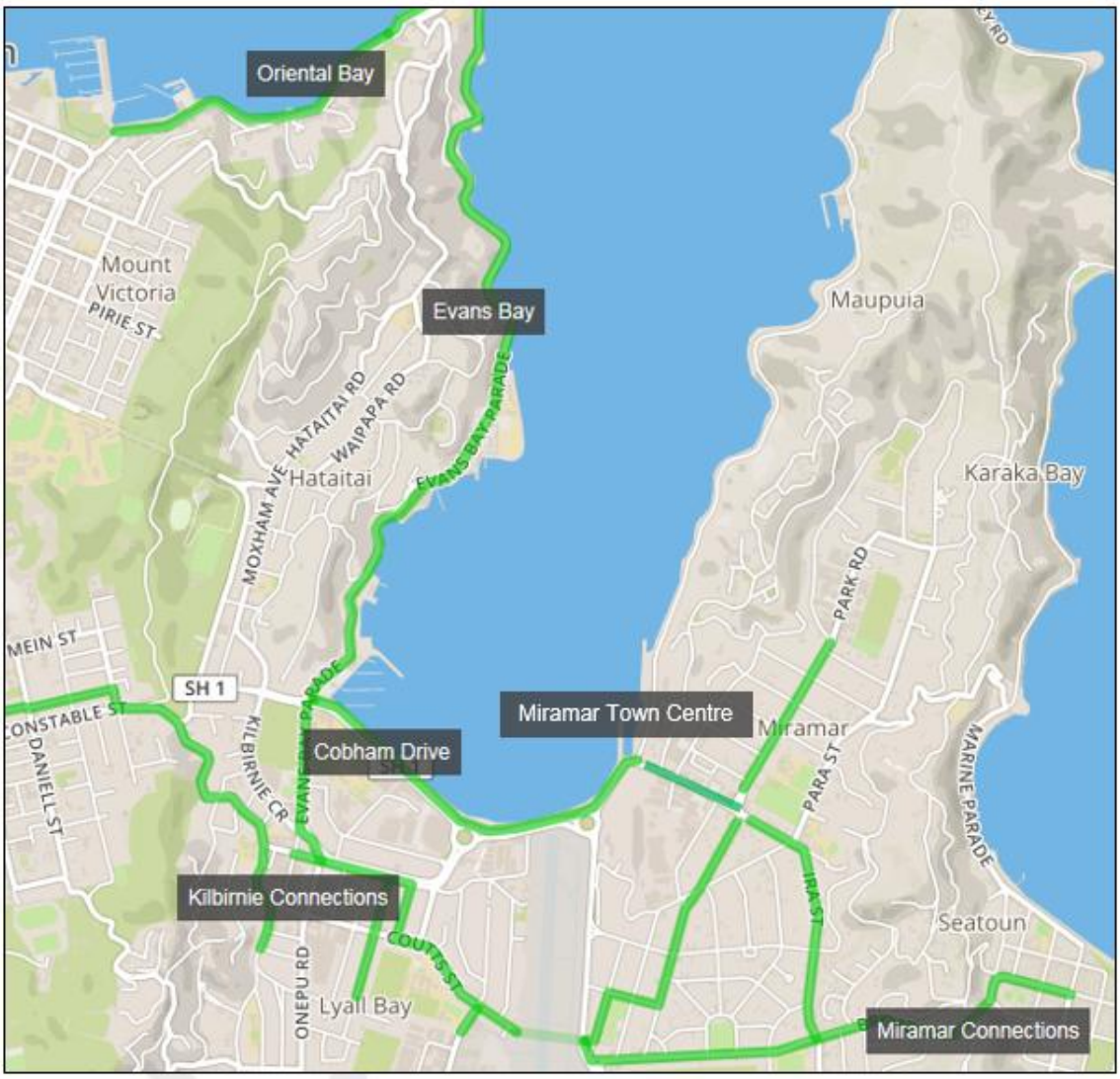
In the Eastern Suburbs, the Council established a Working Group made up of ward councillors, local community representatives and the NZ Transport Agency, to identify preferred route options to recommend to the Council. The Working Group identified priority corridors and preferred cycleway routes that public opinion was sought on in April-May 2016. Public feedback confirmed that the preferred route option for the Kilbirnie to Seatoun corridor was Broadway (as opposed to Strathavon) and led to the inclusion of Ira Street to provide an additional connection between Miramar and Strathmore Park/ Seatoun.

These routes were reviewed and refined as part of the refresh of the Wellington City Cycleways Programme in June-July 2016. At its meeting on 11 August 2016, the Council's Transport and Urban Development (TUD) Committee agreed to adopt the refreshed cycleways programme.

The agreed cycleway routes in the Eastern Suburbs are shown in Figure 1.

[1] Wellington City Council, Cycling Policy, November 2008

Figure 1 Eastern Suburbs Cycleway Routes



As shown in Figure 1, the Miramar Connections project is one of a number of projects being progressed in the Eastern Suburbs.

In April 2017, the Council began working collaboratively with a Working Group involving representatives from within the community living along the routes, local community organisations and investment partners to investigate and identify treatment options for the selected routes.

1.3 Project Objectives

As part of the development of the Wellington Cycle Network Programme Business Case, a set of five investment objectives were agreed:

1. Achieve a high level of service for cyclists within an integrated transport network
2. Improve cycling infrastructure and facilities so that cycling makes a much greater contribution to network efficiency, effectiveness and resilience
3. Cycling is a viable and attractive transport choice

4. The crash rate, number and severity of crashes involving people on bikes is reduced
5. Provide transport choices by increasing the opportunity for people to ride bikes so as to improve the sustainability, liveability and attractiveness of Wellington

The aim the Miramar Connections project is to develop and implement proposals that, together with the other Cycleway projects, achieve these objectives and make it safer and more convenient for people on bikes and those on foot to get around.

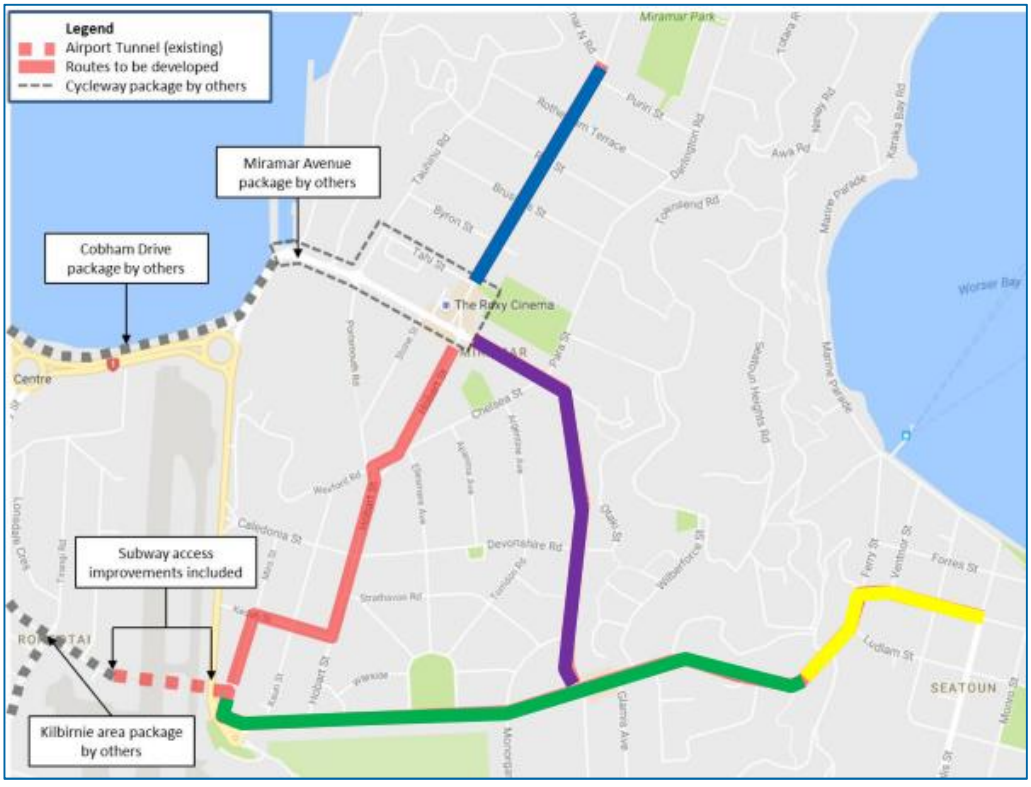
The Council and the Working Group together developed a set of Community Objectives and these are set out in Section 3.4.

1.4 Study Area

The five routes that initially formed the Miramar Connections project are shown in Figure 2 and are as follows:

1. Route 1 – Park Road between Miramar Avenue and Miramar North Road (shown blue)[2]
2. Route 2 – Ira Street/ Miramar Avenue (between Hobart Street/ Park Road and Ira Street) (shown purple)
3. Route 3 – Hobart Street, Kedah Street and Miro Street, including the Airport Subway (shown red)
4. Route 4 – Broadway from the Airport Subway to Seatoun Tunnel (shown green)
5. Route 5 – Seatoun Tunnel/ Dundas Street (shown yellow)

Figure 2 Miramar Cycleway Routes



[2] Route was extended south from Tahi Street down to the Miramar Avenue roundabout in early stages of project

As the Miramar Connections project has progressed, there have been some changes to these routes and these are set out in Section 4.2.

1.5 Purpose of this Report

The purpose of this report is to present the process undertaken and the outcomes of the identification and evaluation of treatment options along the five routes including details of how the Working Group has been involved throughout the process.

1.6 This Report

Section 2 details the Working Group membership and meeting dates.

Section 3 outlines the issues, constraints and opportunities related to developing cycleways along the five routes.

Section 4 provides details about route selection and refinement.

Section 5 present in detail the process undertaken and the outcomes of the identification and evaluation of treatment options along the five routes.

2. Community and Key Stakeholders

2.1 Community Engagement

In March 2017, two open days were held at the ASB Sports Centre[3] to gather initial thoughts about the eastern cycleways connections. Locals identified safety concerns, talked about things they valued and made suggestions, with some registering interest in being part of a community Working Group. Summaries of the public feedback received at the open days is set out in the Issues Paper[4].

2.2 Miramar Connections Working Group

Key organisations including business groups and residents associations, were invited to participate in the Working Group, along with a mix of individuals who had expressed interest. The Working Group membership was comprised of representatives from within the community living along the routes, local community organisations and advocacy groups, as well as investment partners, as follows:

- Living Streets (advocate) - 1
- Cycle Aware Wellington (advocate) - 1
- Local Residents (2 home owners & 2 public transport users) - 4
- Commuter Cyclists (local) - 3
- Strathmore Park Progressive Association (advocate) - 1
- Strathmore Resident's Association (advocate) - 1
- Miramar - Maupuia Resident's Association (advocate) - 1
- Miramar BID (advocate) - 1

Representatives from the NZ Transport Agency, the Council, Greater Wellington and GHD also shared the table with the Working Group, offering specialist perspective to questions that required a deeper knowledge of certain aspects of transport, like buses and cycling regulation and specification.

The overall makeup of the group represented a diverse range of transport users including people who walk, bike, use public transport and drive cars through Miramar. Participants held a wide range of different views, hopes and concerns with a willingness to consider all perspectives and work together to find solutions.

2.3 Miramar Connections Working Group Meetings

The Miramar Connections Working Group met five times between April and July, as follows:

1. Workshop 1 - Wednesday 5 April 2017, 6.30 - 8.30 pm at ASB Sports Centre, Kilbirnie

   The workshop focused on identifying Miramar-wide and route-specific transport issues.

2. Workshop 2 - Wednesday 26 April 2017, 6.00 – 8.00 pm at ASB Sports Centre, Kilbirnie

   The workshop focused on identifying Community Objectives[5].

[3] On Wednesday 15 March 2017, 5.00 pm – 8.00 pm and Saturday 18 March 2017, 10.00 am to 4.00 pm.
[4] Appendix C
[5] See Section 3.4

3. Workshop 3 - Wednesday 17 May 2017, 6.00 – 8.30 pm at Evans Bay Yacht Club

   The main purpose of the workshop was developing the long list of treatment options. In total over 100 options were identified[6].

4. Workshop 4 - Wednesday 14 June 2017, 6.00 – 8.30 pm at the Evans Bay Yacht Club

   The workshop focused on developing a short list of options for each route. The long list of 38 viable options was short listed to 15 options (2-4 per street)[7].

5. Workshop 5 - Wednesday 19 July 2017, 6.00 – 8.00 pm at the Evans Bay Yacht Club

   The workshop focused on reviewing designs of short listed options and agreeing the short listed options to take forward for community consultation. This process resulted in nine short listed options[8].

Working Group members spent many hours poring over plans, asking questions, looking at things from a range of different perspectives, debating the pros and cons, grappling with challenges and trade-offs, and whittling down the alternatives to come up with the most practical options to go out to the wider public. Among other things, the groups talked about parking, the needs of residents and businesses, trees, heritage features, lane widths, safer speeds, painted median strips, driveways, existing safety issues, pedestrian crossings, intersections and bus stops.

[6] See Section 5.2
[7] See **Table 1**
[8] See **Table 2**

3. Issues, Constraints and Opportunities

3.1 Introduction

This section provides a brief route description along with a summary of the issues that have been identified along each of the five cycleway routes (including those identified in the Issues Paper, those highlighted at the community open days and those agreed during the first workshop of the Working Group) and a list of possible opportunities. A full examination of issues, constraints and opportunities is set out in the Issues Paper, which contains the evidence base for the project. This information was shared with the Working Group at the first workshop and changes identified by the Working Group were incorporated into the Issues Paper.

3.2 Cycling in Wellington City - Wider Issues

As part of the development of the Wellington City Cycle Network Strategic Case three problems relating to cycling in Wellington City were identified:

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

3.3 Miramar Connections – Specific Issues

3.3.1 Route 1 - Park Road between Miramar Avenue and Miramar North Road

Park Road has a carriageway width of 20 metres. The footpath 1.5 – 4 metres wide with mature pohutukawa trees in the berm between the carriageway and the footpath on both sides of the street. No cycle facilities are provided on the route.

The street is predominantly residential with a large industrial site at the northern end and Miramar Central School located on the eastern side. Traffic volumes are in the range 6,400 – 7,500 vehicles per day in both directions (August 2015).

The posted speed limit on Park Road is 50 km/h. At Rex Street, the 85th percentile speeds are 55 km/h northbound and 57 km/h southbound, above the posted speed limit. Maintaining speeds under the speed limit on this route is desirable to encourage cycling.

1. Poor Cycling Perception

   76 percent of respondents to a Council survey advised that they would consider cycling if safe, separated infrastructure was provided - mode share for cycle to work trips in the Eastern Suburbs is currently around 7%.

2. Unappealing Environment

   - Street lighting not effective (obscured by trees)
   - Difficult/ feels unsafe to cross some side streets due to widths and increased volumes due to rat running (Brussels St in particular)

- High traffic speeds (road is too wide, needs calming)
- Angle parking at the southern end (potential crash risk for cyclists)
- Choke points at both ends
- Design of roundabout at Miramar Avenue (also mentioned as Hobart Street issue)
- High number of buses
- Loose chip surface not cycle-friendly

3. High Crash Risk (based on 2012-2016 crash data):
   - Brussels Street intersection (four crashes at this intersection, one was a cyclist)
   - Side roads: Rex Street and Rotherham Terrace
   - Miramar Avenue roundabout (five crashes at this intersection, one was an eight year old pedestrian)

Opportunities:

- Flush medians allow vehicles to overtake cyclists at a safe distance
- The width of the flush medians could be reduced to cater for cycle facilities
- The 30 km/h speed section enables confident cyclists to more comfortably cycle in the traffic lane
- The property setback could provide a shared off road pedestrian and cycle path
- There are a number of local destinations where cycling could be encouraged and facilities such as cycle parking could be provided, e.g. Miramar Central School, Miramar Town Centre and the commercial premises north of Miramar North Road.
- Work with water infrastructure teams to identify planned improvement projects and to align works programmes.

3.3.2 Route 2 - Ira Street/ Miramar Avenue

Miramar Avenue and Ira Street have carriageway widths varying between 11 and 16 metres and a 1.2 - 1.5 metre wide footpath. On the eastern side of Ira Street between Broadway and Otaki Street, there is no footpath. The Miramar Avenue section has mature pohutuakawa trees on both sides.

Both streets are predominantly residential. Traffic volumes are in the range of 5,000 – 8,150 vehicles per day in both directions (August 2015). From 1 July 2018, it will be a medium frequency core bus route.

The posted speed limit is 50 km/h. At The Quadrant, the 85th percentile speed is 54 km/h northbound and 55 km/h southbound, above the posted speed limit. Maintaining speeds under the speed limit on this route is desirable to encourage cycling.

1. Poor Cycling Perception

   See section 3.3.1

2. Unappealing Environment
   - Design of Chelsea Street / Para Street / Miramar Avenue intersection

- Feels unsafe to use pedestrian crossing at Miramar Avenue/ Ira Street intersection - due to location/ visibility
- Kerb extensions at pedestrian crossing at Miramar Avenue/ Ira Street intersection create a pinch point for cyclists
- High traffic speeds
- Design of overall road layout (narrow parking lanes, footpath and berm inconsistencies, painted markings visually unattractive)
- Bus shelters needed/ need improvements

3. High Crash Risk (based on 2012-2016 crash data):
   - Chelsea Street / Para Street / Miramar Avenue intersection
   - Caledonia Street intersection

Opportunities:

- Flush medians allow vehicles to overtake cyclists at a safe distance
- The width of the flush median on Miramar Avenue could be reduced to cater for cycle facilities

Constraints:

The brick wall along Ira Street is recognised as a heritage item in the Wellington City District Plan. This is described in the Heritage List: Objects as 'Former Brickworks Wall c1925'[9]. It is one of the last of any significant length in Wellington. Any modification or demolition to the wall will require resource consent and would be expected to receive interest from local residents based on a previous modification to the wall.

3.3.3 Route 3 - Hobart Street/ Kedah Street/ Miro Street

Hobart Street has an 11 - 12.5 metre wide carriageway. Footpath widths vary, on the western side it is 1.2 – 1.5 metres wide footpath, on the eastern side the footpath is up to 3.5 metres wide. Miro Street has a footpath on one side and a carriageway of 14 metres. Kedah Street has a carriageway width of 6.8 metres. Both streets have mature trees along their length.

All three streets are predominantly residential. Traffic volumes on Hobart Street are 2750 vehicles per day in both directions (August 2015). Miro Street and Kedah Street are classified as low volume routes with traffic volumes in both directions less than 500 vehicles per day. Pedestrian counts into the Airport Subway indicated between 60 – 100 people per 2-hour period using the tunnel, with a peak of 63 per hour. Cyclists at the Airport Subway peaked at 100 vehicles in the am peak hour (March 2016). From 1 July 2018, Hobart Street will be a high frequency core bus route.

The posted speed limit is 50 km/h on Hobart, Kedah and Miro Streets. The 85th percentile vehicle speed on Hobart Street is 49 km/h and is 44 km/h and 42 km/h on Miro Street and Kedah Streets, respectively.

1. Poor Cycling Perception

[9] (Sec 1 SO323335)

See Section 3.3.1

2. Unappealing Environment
    - Design of roundabout at Miramar Avenue (also mentioned as Park Road issue)
    - Non-residential parking activities, particularly around Chelsea Street / Wexford Road/ Hobart Street intersection island when filming taking place at Stone Street Studios
    - Design of intersections (Chelsea Street / Wexford Road/ Hobart Street and Caledonia Street)
    - Bus stops near Caledonia Street intersection create pinch points
    - Number of buses will increase in 2018
    - Design of Airport Subway – lighting, signage, lack of drop kerb, personal/ airport security, flooding, potential for cyclist and pedestrian conflict at Miro Street end of tunnel
    - Scooters in Airport Subway
    - Traffic islands south of Miramar Avenue create pinch points for cyclists
    - Lack of pedestrian crossing facilities – south of Caledonia Street
3. High Crash Risk (based on 2012-2016 crash data):
    - Caledonia Street intersection (three crashes at this intersection, one involved a fourteen year old cyclist)

Opportunities:

- Traffic speeds and volumes are low along this route, particularly along Miro Street and Kedah Street, making it a desirable route for cyclists and one which could be promoted with minimal infrastructure provision
- The existing grassed berms on Miro Street and Kedah Street could be converted to off road cycle facilities
- Cycle parking facilities could be provided at the shops at the Devonshire Road/ Caledonia Street/ Hobart Street intersection

3.3.4 Route 4 - Broadway from the Airport Subway to Seatoun Tunnel

This route is the primary collector route linking SH1 (Calabar Road) to Seatoun. It has residential, commercial, retail and education uses along it. Traffic volumes on Broadway are between 8,000 – 13,300 vehicles per day in both directions (July 2015) with the higher flow at the western end (Kauri Street) of Broadway. From 1 July 2018, Broadway will be a high frequency core bus route.

The posted speed limit is 50 km/h, with an 85th percentile speed of 54 km/h eastbound and 52 km/h westbound (at Monorgan Road).

1. Poor Cycling Perception

    See Section 3.3.1

2. Unappealing Environment

- Traffic islands between Calabar Road and Ira Street, together with parked cars, create pinch points for cyclists
- High traffic speeds
- Lack of signage for cyclists (to Airport Subway) and the route to follow via the gap in the traffic island is not considered safe for cyclists or pedestrians
- Design of intersections (Hobart Street, Monorgan Road and Ira Street)
- Narrow carriageway at Strathmore Shops (sharrows have recently been painted)
- High parking demand (Calabar Road end) – increased risk for cyclist to be hit by opening door

3. High Crash Risk (based on 2012-2016 crash data):
    - Monorgan Rd intersection
    - Ira Street intersection (five crashes at this intersection, including one 13 year old pedestrian and one cyclist)

Opportunities:

- The flush median on Broadway could be reduced to cater for cycle facilities
- The 30 km/h speed section enables confident cyclists to more comfortably cycle in the traffic lane, particularly at the Ira Street roundabout/ Strathmore shops
- Cycle parking facilities could be provided at the Strathmore shops and the shops located at the Hobart Street intersection
- The grassed area at the north east corner of the Ira Street roundabout could be utilised

Constraints:

- There is a heritage-designated Norfolk Island Pine tree at 411 Broadway (at the intersection with Crawford Green). Any works in proximity to the tree would require consent if the cycleway route disturbed soil or requires the laying of impervious surfaces within the dripline of the tree
- In the road corridor at approximately 459 Broadway (between The Quadrant and Ira Street) there is an unnamed Maori site, identified as being of high significance. Any intrusive works in this area would require resource consent. Ngati Toa and Taranaki Whanui have been involved in discussions around this site and the likely nature of any proposed works

3.3.5 Route 5 - Seatoun Tunnel/ Dundas Street

The route is predominantly residential with a small area of shops at Seatoun. Seatoun Tunnel is narrow with no shoulders and has a very narrow footpath (less than 1 metre wide) on the northern side. Ferry Street has a kerb-to-kerb width of 14.5 metres. Dundas Street is lined with large pohutukawa trees on the footpath. The trees in the footpath allow for only a 1 metre wide footpath in some areas

Traffic volumes are in Seatoun Tunnel are in the range of 5,600 vehicles per day in both directions (July 2015).

The posted speed limit is 50 km/h, with an 85th percentile speed of 52 km/h eastbound and 51 km/h westbound in the Seatoun Tunnel. Traffic speeds on Ferry and Dundas Streets are under 50 km/h at the 85th percentile.

1. Poor Cycling Perception

   See Section 3.3.1

2. Unappealing Environment
   - Design of Seatoun Tunnel – narrow traffic lanes, narrow footpath, lighting, high traffic speeds
   - Visibility from Ludlam Street intersection
   - Difficult to access Seatoun Tunnel footpath from Ludlam Street
3. High Crash Risk (based on 2012-2016 crash data):
   - Ludlam Street intersection
   - Dundas Street/ Inglis Street intersection (eight crashes at this intersection, including three cyclists)

Opportunities:

- The 30 km/h speed section enables confident cyclists to more comfortably cycle in the traffic lane

3.4 Community Objectives

Taking into account the wider Project Objectives (set out in Section 1.3) the Working Group developed a set of Community Objectives focused on addressing the identified issues:

- Improve the safety of road users, prioritising those most vulnerable
- Improve the sustainability, liveability and attractiveness of Miramar
- Improve connections for pedestrians and cyclists
- Reduce the opportunity for conflicts between all road users
- Improve the level of service for pedestrians
- Improve the level of service for cyclists
- Improve the level of service for buses and bus users
- Maintain the level of service for other motorised vehicles

4. Cycle Route Development

4.1 Background

As set out in Section 1.2, the Eastern Suburbs Working Group initially identified priority corridors and preferred cycleway routes in Miramar that public opinion was sought on in April-May 2016. Public feedback confirmed that the preferred route option for the Kilbirnie to Seatoun corridor was Broadway (as opposed to Strathavon) and led to the inclusion of Ira Street to provide an additional connection between Miramar and Strathmore Park/ Seatoun.

These routes were reviewed and refined as part of the refresh of the Wellington City Cycleways Programme in June-July 2016. At its meeting on 11 August 2016, the Council's Transport and Urban Development (TUD) Committee agreed to adopt the refreshed cycleways programme.

The agreed cycleway routes in Miramar are shown in Figure 3.

Figure 3 Miramar Cycleway Routes

As shown in Figure 3, the five Miramar routes are:

1. Route 1 – Park Road between Miramar Avenue and Miramar North Road (shown blue)
2. Route 2 – Ira Street/ Miramar Avenue (between Hobart Street/ Park Road and Ira Street) (shown purple)
3. Route 3 – Hobart Street, Kedah Street and Miro Street, including the Airport Subway (shown red)

4. Route 4 – Broadway from the Airport Subway to Seatoun Tunnel (shown green)
5. Route 5 – Seatoun Tunnel/ Dundas Street (shown yellow)

4.2 Changes to Routes

As the Miramar Connections project has progressed, there have been some changes to these routes:

- Route 3 – Hobart Street, Kedah Street and Miro Street, including the Airport Subway
  - At Workshop 5, it was noted that the Airport Subway is a separate project being progressed by the Council and the Airport. The Working Group's suggestions have been passed on to the team working on this
  - Following Workshop 5 it was agreed[10] that it was difficult to provide safe cycling facilities that meet national guidelines on Hobart Street within the constraints identified and that an alternative route option along Kauri Street, which runs parallel to Hobart Street, would be investigated as part of the public engagement in September 2017, as set out further in Section 5.4.
- Routes 4 Broadway from the Airport Subway to Seatoun Tunnel and Route 5 – Seatoun Tunnel/ Dundas Street
  - At Workshop 4 it became apparent that the natural change in use of how the route was used changed at the Ira Street intersection and not at the Seatoun Tunnel and the Working Group agreed to end Route 4 and start Route 5 at this location
  - Following Workshop 5 it was agreed that this route should be comprised of three sections:
    1. Broadway from the Airport Subway to Ira Street
    2. Ira Street to Seatoun Tunnel
    3. Seatoun Tunnel to Dundas / Inglis Street intersection

[10] . By the Wellington City Cycleways Programme Project Control Group

5. Cycleways Treatment Evaluation

5.1 Introduction

This section detail the process undertaken and the outcomes of the identification and evaluation of treatment options along the five routes

5.1.1 Short Listing Process and MCA Assessment Criteria

The Council developed a Short Listing Process and a set of agree Multi-Criteria Analysis (MCA) Assessment Criteria for all cycleway projects to ensure a consistent approach was followed.

The process is summarised in Figure 4.

Figure 4 Short Listing Process

The MCA Assessment Criteria is provided in Appendix B and is comprised of:

- Effects
  - Transport network fit
  - Pedestrian effects
  - Bus users effects
  - Motorised traffic effects
  - Parking effects
  - Property effects

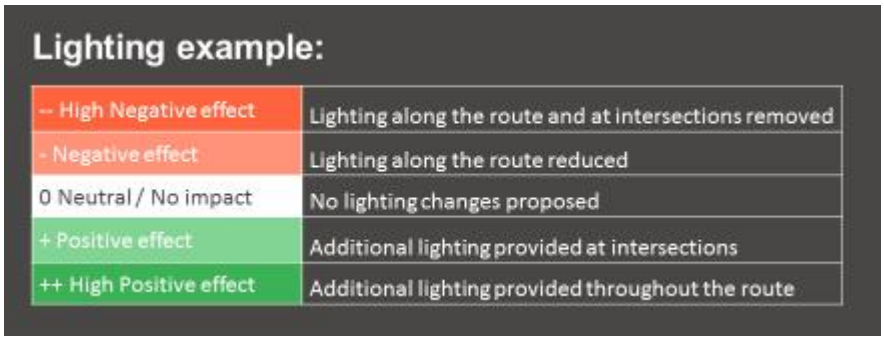
- Environmental effects
- Cultural effects

- Implementation
- Cost

5.1.2 MCA Scoring Approach

A consistent five point scoring approach was applied across all of the routes (and all Eastern Suburbs projects), as shown in the example below in Figure 5.

Figure 5 Five point scoring approach



For the 'Implementation' Assessment Criteria scores of low, medium or high were given. For 'Costs' scores were awarded based on indicative costs as follows: high (greater than $2M), medium ($50k - $2M) and low (less than $50k).

5.2 Treatment Options Identification (Long List)

The Project Team developed a draft long list of treatment options to address the previously identified issues and presented these for discussion at Workshop 3 (see Appendix A). These were grouped into five Alternative Areas:

1. One-way bike lanes (kerbside and cycle lane next to parking)
2. Two-way bike lanes
3. Paths (shared and separated)
4. Mixed traffic/ shared spaces
5. Other ideas

The Working Group worked with the Project Team to identify further treatment options, with the aim being to identify every possible option. Other options identified included bus lanes, lower speed limits (30 or 40 km/h), sharrows, angle parking and 'do nothing'.

At Workshop 3, the Working Group also looking at specific intersections and areas previously identified as issues to better understand problems and discuss possible solutions.

Following the workshop, the Project Team further developed the long list and a long long list was created that resulted in the identification of 29 options and 103 sub-options.

5.3 Treatment Options Assessment (Long List to Short List)

5.3.1 Sifting of Options

The long long list was sifted to identify options that did not meet the Council's cycling investment objectives (Section 1.3), the community objectives (section 3.4), requirements such as bus frequencies and delays for bus lanes or other factors such as community acceptance and the ability to fit within the existing road corridor (property boundary to property boundary).

The following options were not progressed:

- Removal of parking on both sides of road, due to current area-wide parking demand issues
- Cycle lanes in the centre of the carriageway, due to inability to integrate into intersection design throughout the route and safety concerns
- Bus lanes, due to the number of buses not meeting the lower threshold for frequency of vehicles

The remaining feasible options were further developed with consideration given to improvements to intersections and other possible safety improvements.

5.3.2 Multi-Criteria Analysis (MCA) of Long List

A multi-criteria analysis (MCA) of the long list of options was undertaken, following the process set out in Section 5.1.

The MCA criteria was refined to twelve key criteria for ease of presentation at the workshop (see Appendix B).

The options for each route were assessed and the results were presented to the Working Group at Workshop 4 (See Appendix C).

Assessing the Long List

For each route, the Working Group was asked:

- Do you agree with assessments/ scoring?
- What is good about this option?
- Suggestions for improvements to options
- If any previously discarded options should be added back in?

Short Listing of Options

For each route, the Working Group was also asked to identify:

- Preferred Option (using a yellow sticker)
- Do not Support (using a red sticker)

This enabled the options to be short listed. The results are summarise in Table 1, with full details provided in Appendix D

Table 1 Short Listed Options

No.	Description	Park Rd	Ira St	Hobart St	Broadway	Seatoun
1	One-way cycle lanes between kerb & parking	n/a	×	×	×	n/a
1A	One-way cycle lanes between kerb & parking, car door buffer zone	✓	✓	✓	✓	✓
2	One-way cycle lanes between parking & traffic lane	n/a	×	×	×	n/a
2A	One-way cycle lanes between parking & traffic lane, car door buffer zone	✓	✓	✓	✓	×
3	Two-way separated path between footpath & parking	✓	✓	×	✓	×
3A	Two-way separated path (Miro/ Kedah only)	n/a	n/a	✓	n/a	n/a
4	Mixed traffic, 30 km/h speed, sharrows	×	×	×	×	✓
4A	Mixed traffic, 30 km/h speed, sharrows (Miro/ Kedah only)	n/a	n/a	✓	n/a	n/a
5	Reduced speeds	×	×	×	×	n/a
6	Do Nothing	×	×	×	×	×
7	Northbound cycle lane between angle parking and kerb (within existing 30km/h zone only)	×	n/a	n/a	n/a	n/a

At Workshop 4, the Working Group discussed the appetite for removing parking from one side of street in order to make the options better, e.g. provide more space for people walking and cycling. It was questioned whether this was necessary and agreed that on streets as wide as Park Road it is not but in other areas it could be, e.g. areas where there are not residential parking requirements on both sides, such as Miro and Kedah Streets as well as the southern section of Ira Street adjacent to the brick wall.

The Working Group also discussed the removal of median strips. It was noted that if the median is removed, consideration needs to be given to providing pedestrian crossing facilities and providing space for turning movements at intersections (possibly via small numbers of parking spaces being removed at these locations).

Following Workshop 4, the Project Team considered the options that had been shortlisted and the comments made and further developed the short listed options.

5.3.3 Confirm Short List of Options

The short listed options were presented to the Working Group at Workshop 5.

For each route, the Working Group was asked:

- Suggestions for improvements to options
- What have we missed?
- What is/ is not good about this option?
- Should we take the option forward to consultation?

This enabled further short listing to be undertaken and the agreed short list for each route as shown in Table 2 and discussed below.

Table 2 Confirmed Short Listed Options

No.	Description	Park Rd	Ira St	Hobart St	Broadway	Seatoun
1	One-way cycle lanes between kerb & parking	n/a	×	×	×	n/a
1A	One-way cycle lanes between kerb & parking, car door buffer zone	✓	✓	×	✓	✓
2	One-way cycle lanes between parking & traffic lane	n/a	×	×	×	n/a
2A	One-way cycle lanes between parking & traffic lane, car door buffer zone	✓	×	×	✓	×
3	Two-way separated path between footpath & parking	×	✓	×	✓	×
3A	Two-way separated path (Miro/ Kedah only)	n/a	n/a	×	n/a	n/a
4	Mixed traffic, 30 km/h speed, sharrows	×	×	×	×	✓
4A	Mixed traffic, 30 km/h speed, sharrows (Miro/ Kedah only)	n/a	n/a	✓	n/a	n/a
5	Reduced speeds	×	×	×	×	n/a
6	Do Nothing	×	×	×	×	×
7	Northbound cycle lane between angle parking and kerb (within existing 30 km/h zone only)	×	n/a	n/a	n/a	n/a

- **Park Road** – it was agreed that Option 3 (two-way separated path between footpath and parking) would not be taken forward to public consultation for the following reason:
  - The number of driveways and side streets would significantly impact on the safety of cyclists
- **Ira Street** – it was agreed that Option 2A (one-way cycle lanes between parking and traffic lane, car door buffer zone) would not be taken forward to public consultation for the following reasons:
  - The option is largely the same as the existing situation, offering little additional protection for cyclists, so will not increase the level of service and encourage the 'interested but concerned'
  - The cost/ benefit doesn't stack up as this option involves considerable kerb changes and therefore will have a high costs with little increased benefits for any road user
- **Hobart Street** – it was agreed that Option 3A (two-way separated path - Miro/ Kedah only) would not be taken forward to public consultation for the following reasons:
  - The significant tree removal involving mature pohutukawa trees which also act as a sound barrier from airport noise for residents

- High costs, especially when compared to Option 4A (Mixed traffic, 30 km/h speed, sharrows - Miro/ Kedah only)

- **Hobart Street Options 1A and 2A** – The Project Team discussed the issues they had faced implementing Options 1A (one-way cycle lanes between kerb & parking, car door buffer zone) and 2A (one-way cycle lanes between parking & traffic lane, car door buffer zone) on Hobart Street, within the constraints given:

  - No reductions to footpath width
  - Trees retained
  - No parking reduction (WCC just signalled intention to protect resident's parking in this area)
  - 12 metre kerb-to-kerb width south of Wexford Road

  The Project Team advised that they had considered a 'Neighbourhood Greenway' or 'Mixed Traffic' option, which is suitable for Hobart Street due to its lower volumes (2,750 p/day). However, it would require lower speeds to be achieved (currently 50 km/h 85th percentile, noting that these may increase if there is a change of priority at Devonshire Road/ Caledonia Street) and it would be difficult to introduce physical measures to reduce speeds due to the impact this would have on buses on this high frequency core bus route.

  It was agreed that the Project Team would continue to explore options including raising the possibility of an alternative route option.

- **Consistency of options** - it was noted that Option 2A (one-way cycle lanes between parking & traffic lane, car door buffer zone) had been taken forward on Park Road but was not supported on Ira Street. The group felt that it was a suitable option on Park Road because it is wider

5.4 Changes following Workshop 5

5.4.1 Hobart Street

As noted in Section 4.2, it was agreed[11] that it was difficult to provide safe cycling facilities that meet national guidelines on Hobart Street within the constraints identified and that an alternative route option along Kauri Street, which runs parallel to Hobart Street, would be investigated as part of the public engagement in September 2017.

It was later agreed by the Project Team and the Council's Project and Programme Managers that as part of the public engagement, options would also be presented on Hobart Street (between Kedah Street and Wexford Road) that question the constraints relating to parking removal and footpath width reductions.

As a result of the above, Hobart Street has been split into three sections with the following options for each section:

1. Miro and Kedah Streets – one option:

   Sharrow markings in traffic lane

[11] . By the Wellington City Cycleways Programme Project Control Group

2. Kedah Street to Wexford Road – three options:

   Option A: One-way bike lanes (kerbside or traffic-side), with parking removed on one side of the road

   Option B: One-way bike lanes (kerbside or traffic-side), includes road widening and reducing footpath width

   Option C: Alternative route along Kauri Street with sharrows

3. Wexford Road to Miramar Avenue – two options:

   Option A: One-way bike paths between kerb and parking, (at footpath level) car-door buffer zone

   Option B: One-way bike lanes between parking and traffic lane

5.4.2 Broadway and Seatoun

It was agreed by the Project Team and the Council's Project and Programme Managers that Broadway and Seatoun should also be split into three section (as opposed to two) with the following options for each section:

1. Miro Street (Airport Subway) to Strathmore Shops

   Option A: One-way bike paths between kerb and parking (at footpath level), car-door buffer zone

   Option B: One-way bike lanes between parking and traffic lane, car-door buffer zone

   Option C: Two-way separated bike path between footpath and parking

2. Strathmore Shops to Seatoun Tunnel

   Option A: One way uphill kerbside bike path

   Option B: Two-way separated bike path between footpath and parking on northern side

3. Seatoun Tunnel to Dundas / Inglis Street intersection

   There was no clear support for options at Workshop 5, so it has been agreed that no proposals for improvements to Ferry and Dundas Streets will be presented as part of the public engagement. The feedback received will help the Council to decide what future improvements may be needed.

6. Conclusion

The options being presented as part of the public engagement in September 2017 are as follows (see Appendix E for drawings):

Park Road

Option A: One-way bike paths between kerb and parking (at footpath level), car-door buffer zone

Option B: One-way bike lanes between parking and traffic lane, car-door buffer zone

Ira Street and Miramar Avenue

Option A: One-way bike paths between kerb and parking (at footpath level), car-door buffer zone

Option B: Two-way separated path between footpath and parking on northern/eastern side

Hobart Street - Miro and Kedah Streets

Option A: Sharrow markings in traffic lane

Hobart Street - Kedah Street to Wexford Road

Option A: One-way bike lanes (kerbside or traffic-side), with parking removed on one side of the road

Option B: One-way bike lanes (kerbside or traffic-side), includes road widening and reducing footpath width

Option C: Alternative route along Kauri Street with sharrows

Hobart Street - Wexford Road to Miramar Avenue

Option A: One-way bike paths between kerb and parking, (at footpath level) car-door buffer zone

Option B: One-way bike lanes between parking and traffic lane

Broadway - Miro Street (Airport Subway) to Strathmore Shops

Option A: One-way bike paths between kerb and parking (at footpath level), car-door buffer zone

Option B: One-way bike lanes between parking and traffic lane, car-door buffer zone

Option C: Two-way separated bike path between footpath and parking

Broadway - Strathmore Shops to Seatoun Tunnel

Option A: One way uphill kerbside bike path

Option B: Two-way separated bike path between footpath and parking on northern side

Broadway - Seatoun Tunnel to Dundas / Inglis Street intersection

No proposal

Appendix A – Draft Long List of Treatment Options

1. **One-way bike lanes (including kerbside and cycle lane next to parking)**

Layout option	Considerations	Intersection considerations
One-way bike lanes	Two one-way bike lanes – one on each side of the road. Ideally, each lane is 2.2 metres wide so faster bike riders can overtake slower ones. Can be narrowed to 1.4 metres or less where space is limited. Should be protected by a kerb, bollard or parking lane if the adjacent traffic volume is above 4,000-5,000 vehicles per day and vehicle speeds are greater than 30km/h.[1] On one-way streets, the bike lanes could be going in the opposite direction to other traffic.	Priority controls on all minor side roads, maybe with raised platforms. Traffic lights at busier intersections; replacement of busy roundabouts is necessary. Existing traffic lights upgraded to be bike-friendly.

One-way bike lanes (kerbside)

Desirable

Parking on both sides

Required road width: 25.4m

Parking on one side

Required road width: 22.9m

No parking

Required road width: 20.4m

Minimum

Required road width: 17m

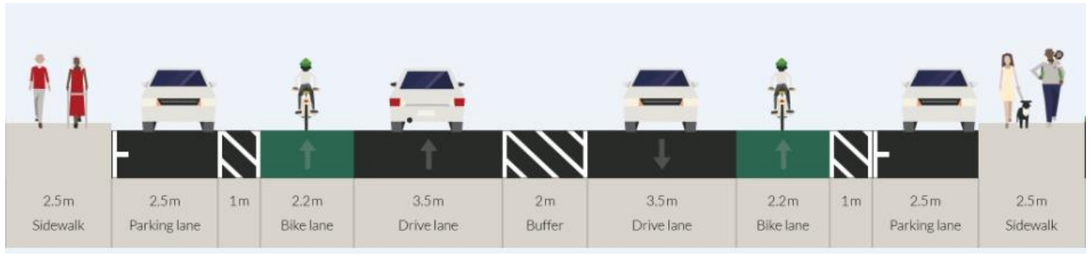
Required road width: 15m

Required road width: 13m

One-way bike lanes (next to parking)

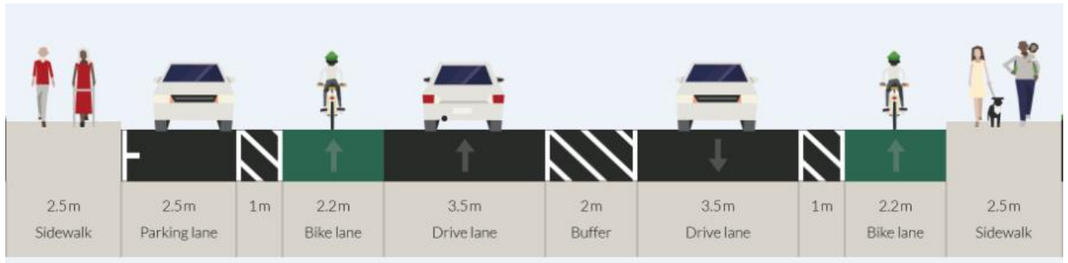
Desirable

Parking on both sides



Required road width: 25.4m

Parking on one side



Required road width: 22.9m

Minimum

Parking on both sides

Required road width: 17m

Parking on one side

Required road width: 15m

2. **Two-way bike lanes**

Layout option	Considerations	Intersection considerations
Two-way bike lane	One two-way bike lane on one side of the road. Ideally 3 metres wide to allow for expected growth in numbers of people cycling in Wellington. Can be narrowed to 2.5 metres if space is limited. Should be protected by a kerb, bollard or parking lane if the adjacent traffic volume is above 4,000-5,000 vehicles per day and vehicle speeds are greater than 30km/h.[1]	These layouts create unexpected direction conflicts so more control is required, usually traffic lights or raised platforms. Special treatment at busy driveways will be required. Traffic lights at busier intersections; replacement of roundabouts is necessary. Existing traffic lights upgraded to be bike-friendly.
Two-way bike lane (centre of road)	On wide roads, the two-way bike lane can be in the centre of the road (between the traffic lanes). Ideally 3 metres wide to allow for expected future growth in numbers of people cycling in Wellington. Can be narrowed to 2.5 metres if space is limited. Must be protected and all vehicle turns across the bike path must be controlled and limited – this means they're not very practical in most built-up areas where people want easy access to adjacent properties and businesses.	These layouts require traffic lights for all turning vehicles across the bike path. Right-turning opportunities for vehicles would be minimised. Traffic lights at busier intersections; replacement of roundabouts is necessary. Existing traffic lights upgraded to be bike-friendly.

Desirable

Parking on both sides

Required road width: 23m

Parking on one side

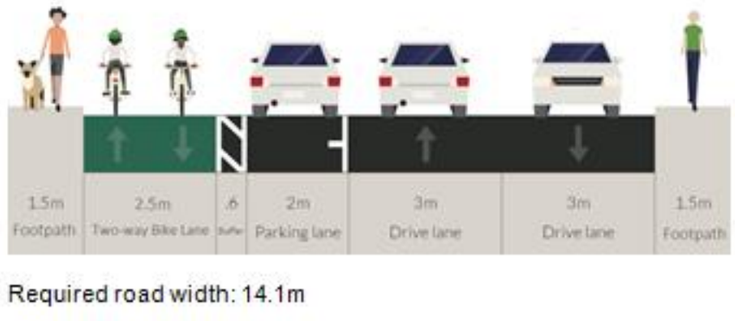
Required road width: 20.5m

No parking

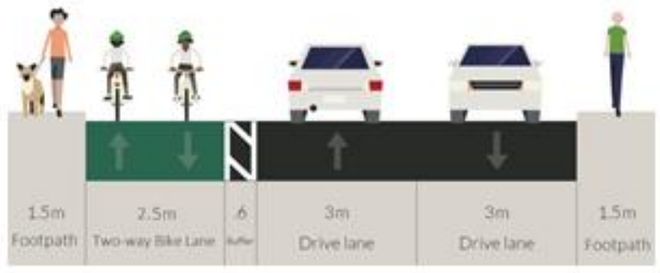
Required road width: 18m

Minimum

Required road width: 16.1m



Required road width: 14.1m



Required road width: 12.1m

Two-way cycle lane layouts - centre

Desirable

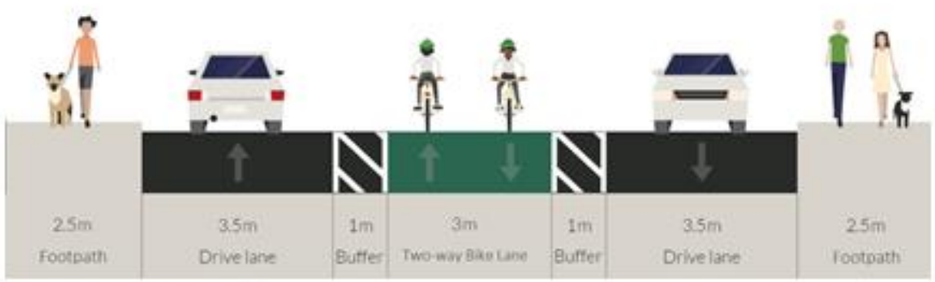
Parking on both sides

Required road width: 22m

Parking on one side

Required road width: 19.5m

No parking



Required road width: 17m

Minimum

Required road width: 16.7m

Required road width: 14.7m

Required road width: 12.7m

3. **Paths (shared with pedestrians and separated)**

Layout option	Considerations	Intersection considerations
Shared path **(people on foot share with people riding bikes)**	Ideally, shared paths are 4 metres wide depending on the numbers of people walking and biking. Can be narrowed to 2.5 metres if space is limited and numbers are low. Should be protected by a kerb, bollard or parking lane if the adjacent traffic volume is above 4,000-5,000 vehicles per day and vehicle speeds are greater than 30km/h.[1] Generally, shared paths depend on the numbers of people walking and biking, and whether these are too high to safely and conveniently share footpath space. Shared paths are usually two-way for all users.	Shared paths create unexpected direction conflicts so more control is required, usually traffic lights or raised platforms. Special treatment at busy driveways will be required. Traffic lights at busier intersections; replacement of roundabouts is necessary. Existing traffic lights upgraded to be pedestrian and bike-friendly.

Shared path, Wairere Drive, Hamilton, New Zealand. (Photo: Paul Ryan)

Shared path layouts

Desirable*

Parking on both sides

Required road width: 20.5m

Parking on one side

Required road width: 18m

No parking

Required road width: 15.5m

Minimum*

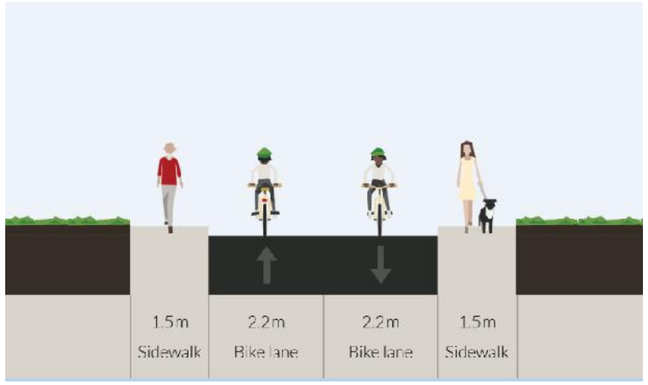
Required road width: 14m

Required road width: 12m

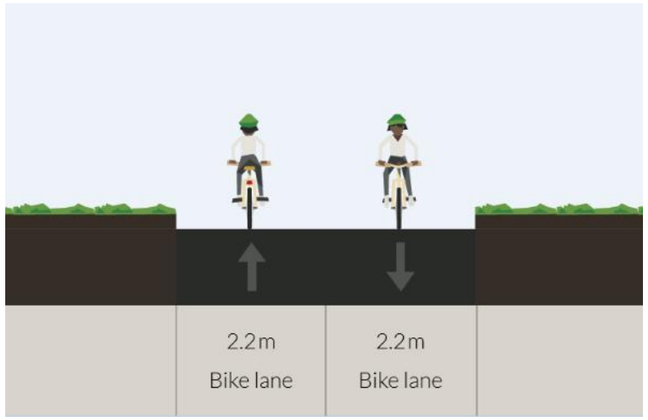
Required road width: 10m

* Widths are subject to pedestrian and cycle volumes. Refer to VicRoads Cycle Notes 21.

Separated Paths Layout



Required path width 7.4m



Required path width 4.4m

4. **Mixed traffic/ shared spaces**

Layout option	Considerations	Intersection considerations
Quiet street **(shared traffic space)**	On quiet streets, people on bikes can share the space with low-speed vehicle traffic. People on bikes are comfortable sharing quiet streets with motorised traffic volumes below 2,500 vehicles per day, provided traffic speeds are low. Vehicles must travel slowly and courteously, and traffic calming such as humps and chicanes may be required to reinforce a 30km/h or lower speed limit. Streets carrying up to 6,500 vehicles per day will need changes to reduce traffic volumes.	Ideally, priority at intersections is aligned to the cycle route. Traffic lights at busier intersections; low-volume roundabouts can be retained. Existing traffic lights upgraded to be bike-friendly.

Quiet street layouts

Desirable

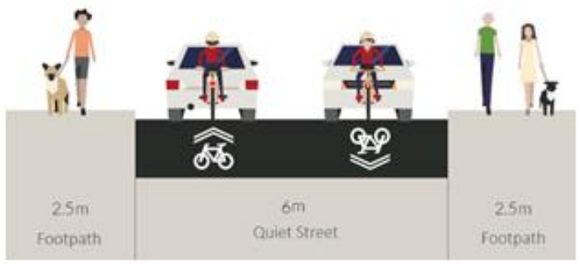
Parking on both sides

Required road width: 16m

Parking on one side

Required road width: 13.5m

No parking



Required road width: 11m

Minimum

Parking on both sides

Required road width: 12m

Parking on one side

Required road width: 10m

No parking

Required road width: 8m

Appendix B – MCA Assessment Criteria Refinement

Completing the MCA

Effects : 5 level rating system

High Negative effect	--
Negative effect	-
Neutral / No impact	O
Positive effect	+
High Positive effect	++

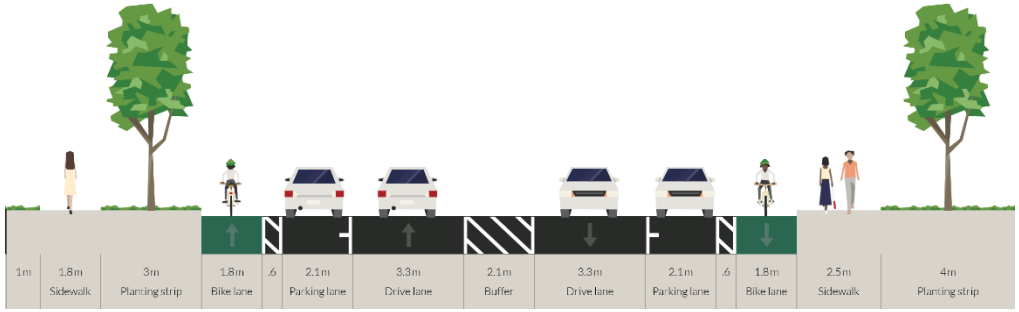
		Criteria	Consideration	Comment	Scoring explanations				
WCC Cycling Investment Objectives	1	**Achieve a high level of service for cyclists within an integrated transport network**	Some (qualitative) LOS measure	Included	Dedicated space for cyclists with signicant physical seperation for vehicular traffic	Dedicated space for cyclists with apropriate width and speed environment Limited or no protection	Limited effect on speed and traffic environment. No dedicated space for cyclists	N/A. Option makes the environment worse for cyclists.	N/A. Option makes the environment significantly worse for cyclists.
	2	**Improve cycling infrastructure and facilities so that cycling makes a much greater contribution to network**	The ability to adapt to change To some extent this is a function of attractiveness, LOS and expected cycling uptake	Covered by 1, 3 & 17					
	3	**Cycling is a viable and attractive transport choice**	Consider perceived LOS and perceived safety Consider effect on cycling uptake by type of cyclist Perceptions may be different for different type of cyclist "interested but concerned" is the target audience	Included	High perception of safety for target audience High uptake for target audience	Medium perception of safety for target audience Considerable uptake for target audience	Insignificant changes to the perception of safety Negligible uptake for target audience	Limited perception of safety Limited uptake	Poor perception of safety Negligible uptake
	4	**The crash rate, number and severity of crashes involving people on bikes is reduced**	Estimated cycling crash number and severity reduction Risk and numbers of conflict points	Covered by 6					
	5	**Providing transport choices by increasing the opportunity for people to ride bikes so as to improve the sustainability, liveability and attractiveness of Wellington**	Consider commuters, recreation, children, schools Extent to which different types of cyclist are accommodated Extent to which different types of bicycle are accommodated	Covered by 3, 7, 8					
Community Objectives	6	**Improve the safety of road users, prioritising those most vulnerable**	Crashes, injuries, deaths, serious injuries Perception of safety	Included	Protected or separated cycle facilities and improvements towards pedestrian safety which have a high perception and provision of safety	Provision of road space with conflict between cyclist and vehicles. Some improvement to pedestrians	Increases conflict in road space use between modes but is mitigated through road design or speed environment	Increase in conflict between cyclists or pedestrians and other modes without mitigating speed or user awareness	Significant decrease in safety for cyclists or pedestrians, likely to cause crashes resulting in injury
	7	**Improve the sustainability, liveability and attractiveness of Miramar**	Improve urban amenities and retained green space/trees Improved economic performance. Uptake of cycling in Miramar, cycle counts	Included	Trees retained Cycle uptake Improved walkability Improved neighbourhood amenity due to reduced speeds	Trees retained Cycle uptake Improved walkability	Negligible neighbourhood benefits	Cycle uptake but at expense of space for pedestrians	Tree removal No cycling or walking improvements
	8	**Improve connections for pedestrians and cyclists**	Safe / dedicated and convenient connections at intersections Improve route consistency for cyclists	Included	A consistent corridor with separated spaces for users with improvements to intersections and pedestrian crossings	Minor improvements to pedestrians or cyclists without exclusive space	No change to existing situation	Cyclists lack dedicated facilities throughout the route	Reductions to existing walking and cycling facilities
	9	**Reduce the opportunity for conflicts between all road users**	Reduce conflicts between cyclist, pedestrians, vehicles and buses (including at intersections, bus stops, driveways, footpaths etc.)	Included	Cyclists and pedestrians have their own space with reduced conflict at intersections	Cyclists still in conflict with pedestrians or vehicles parking on the roadside	No change to existing situation	Cyclist potentially have directional conflict within their own road space	Cyclists need to share the traffic lane at speeds >20km/h, or the removal of pedestrian crossings
	10	**Improve the level of service for pedestrians**		Covered by 7 and 8					
	11	**Improve the level of service for cyclists**		Covered by 1 and 3					
	12	**Improve the level of service for buses and bus users**		Covered by 17					
	13	**Maintain the level of service for other motorised vehicles**		Covered by 18					
Effects	14	**Cycle Network Fit (Consistency)**	Alignment of option to any existing adjacent cycle infrastructure	Covered by 1					
	15	**Transport Network Fit**	Alignment to transport corridor function	Covered by 7 and 9					
	16	**Pedestrians Effects**	LOS and safety for pedestrians	Included	Signicantly improved footpath width and/ or reduced crossing distances at intersections	Improved footpath width and/ or reduced crossing distances at intersections	No change to existing situation	Reduction in current footpath widths	Loss of pedestrian access or insufficent footpath width provided
	17	**Bus Users Effects**	LOS and safety for bus users	Included	Improvements to travel time and bus stop location improvements	Bus stop location improvements	No change to existing situation	Bus stop conflicts	Reduced speeds and drivability concerns
	18	**Motorised Traffic Effects**	LOS and safety for other motorised traffic	Included	Significant improvements to travel time	Minor travel time or turning delay gains	No change to existing situation	Removal of turning facilities (medians and right turn bays)	Increased conflict with other modes
	19	**Parking Effects**	Number of parks available Location of parks Suitability of parking provision (balance between residential, commercial and commuter)	Included	Significant increase in available parking	Improved parking facilities, such as increased on-street parking	No change to existing situation	Loss of parking or parking offset from kerb. Removal of parking with no alternative parking provided	Loss of all existing parking with no alternative parking provided
	20	**Property Effects**	Effect of acquisition on residual land Effect on access to business (incl. deliveries and ease of access)	Within Road Corridor					
	21	**Environmental Effects**	Increase or decrease in light spill on residential properties CPTED (Crime prevention through environmental design) where applicable Effect on vegetation Changes to water quality on the coastal marine area Earthworks Noise	Included	Creation of new green spaces in road reserve	Additional planting via vegetated medians/chicanes	No change to existing situation. Assumed no change to current lighting and CPTED to be considered in detailed design phase No routes affect the water quality on coastal marine areas	Lose some vegetation from the road reserve, such as planting on road islands Light/medium construction works to shorted paths resulting in earthworks and noise from machinery	Significant or loss of all vegetation in the road reserve Heavy construction works to build new cycleway resulting in long-term/irritating construction works and noise
	22	**Cultural Effects**	Based on mana whenua feedback on cultural effects	Isolated cultural impacts					
Implementation	23	**Planning Feasibility**	Plan alignment (District, Reserves, NZCPS, Reserves Management Plans, Other) Approvals Risk (consents etc.) - those involving significant consenting effort would be less feasible than those with fewer planning hurdles	Consistent planning impact					
	24	**Delivery Feasibility**	Traffic disruption during construction Business disruption during construction Options involving more disruption during construction are less feasible than those which can be quickly or easily delivered	Covered within design stage					
	25	**Funding Feasibility**	Delivery cost within likely available funding Delivery within UCP timetable (if applicable)	Covered by 26 and in next stage					
Cost	26	**Total Cost**	Implementation cost including design, consenting, construction and supervision	Included	N/A	N/A	Very minor works. Eg. New speed limit signs, sharrow markings	Significant new road markings and road marking removal. Minor removal of traffic islands. Minor intersection improvements	Signicant kerb line alteration. Signicant new pavement or footpath. Minor intersection alterations

Appendix C – Long List Assessments

Route 1: Park Road

Option 1A

- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between kerb and parking. Buffer zone provided between parking and cycle lanes.
- Reduced median and parking lane widths.
- Alter intersections at Rex St, Rotherham Tce and Brussels St to reduce crossing distances, increase visibility and reduce speeds

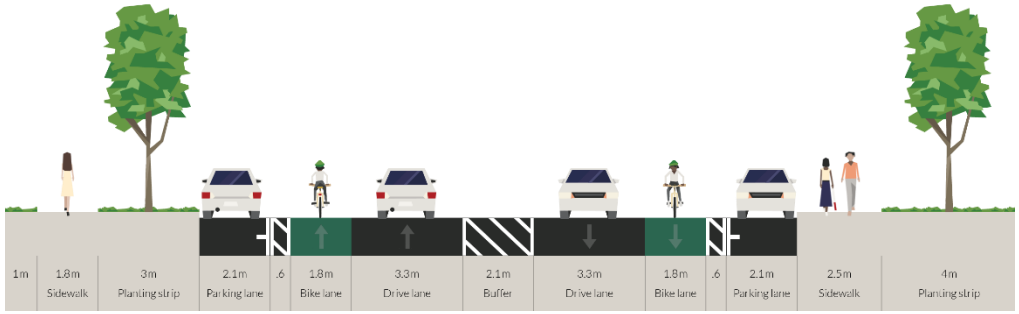


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
++	++	++	+	++	++	+	o	-	o	o	-

Route 1: Park Road

Option 2A

- One-way cycle lanes at road level, each side of the street, between parking and traffic lanes. Buffer zone between parking and cycle lanes.
- Reduce median and parking lane widths.
- Alter intersections at Rex St, Rotherham Tce and Brussels St to reduce crossing distances, increase visibility and reduce speeds

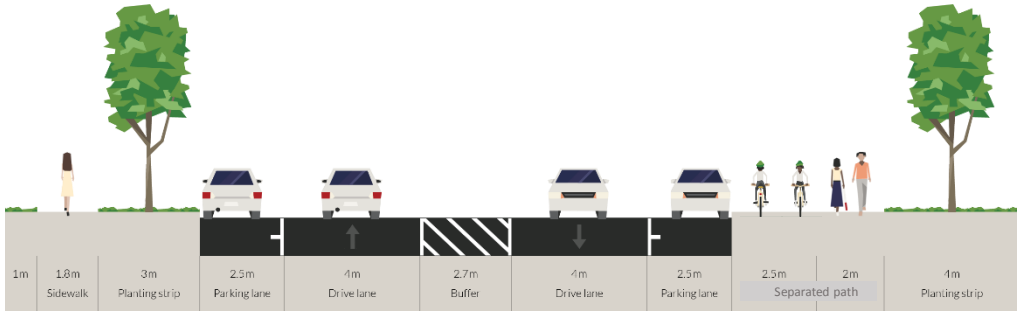


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
+	+	+	+	++	-	+	o	-	o	o	-

Route 1: Park Road

Option 3

- Two-way separated path on one side of the street, between footpath and parking. Alternatively, a two-way lane at road level.
- Reduce median and parking lane widths.
- Alter intersections at Rex St, Rotherham Tce and Brussels St to reduce crossing distances, increase visibility and reduce speeds

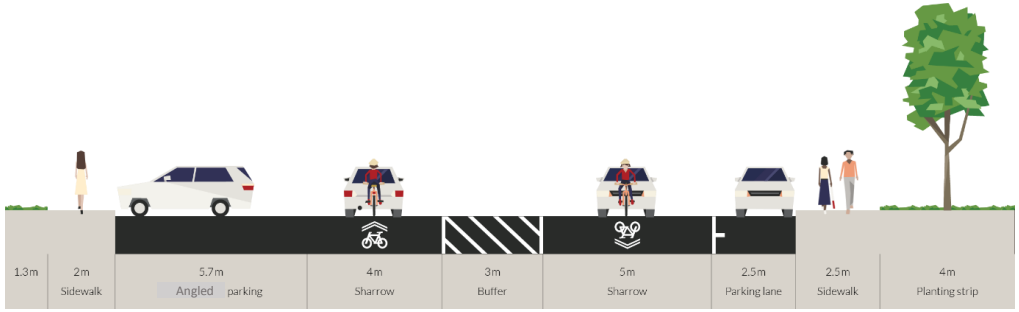


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
+	++	+	+	+	+	+	o	o	o	o	--

Route 1: Park Road

Option 4

- Mixed traffic within 30km/h zone (to Byron St intersection) and use of sharrow markings
- Remainder of Park Road unchanged
- Alter intersections at Rex St, Rotherham Tce and Brussels St to reduce crossing distances, increase visibility and reduce speeds

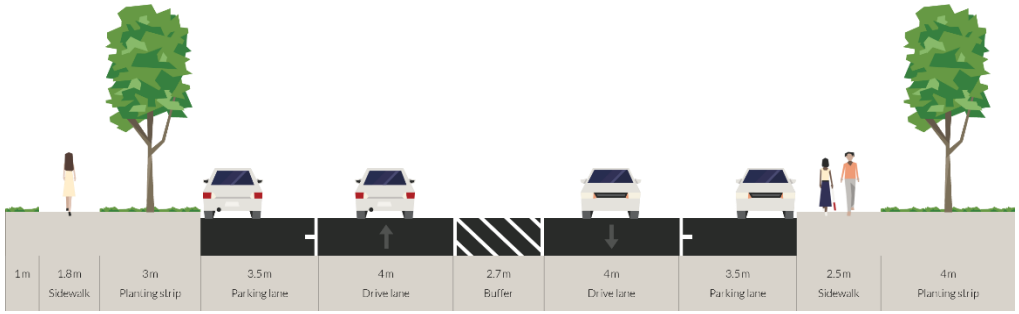


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
+	-	-	+	--	o	o	o	o	o	o	o

Route 1: Park Road

Option 5 (presented as Option 6 at workshop)

- Park Road cross-section unchanged
- Reduce speeds with complementary signage and markings in the traffic lanes

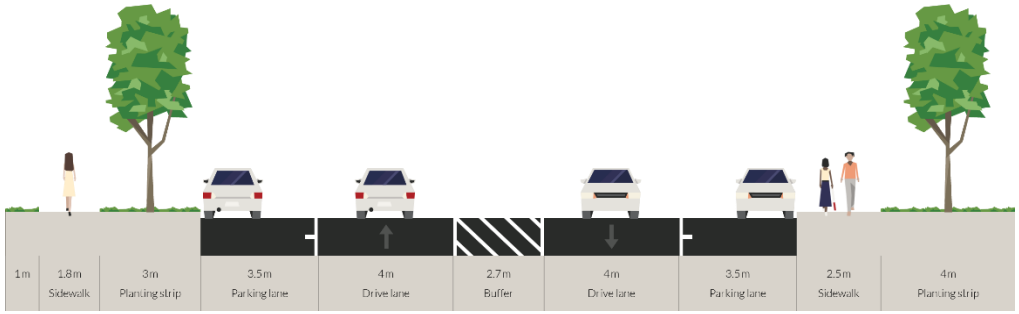


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
o	-	--	++	-	--	o	o	o	o	o	o

Route 1: Park Road

Option 6 (presented as Option 7 at workshop)

- Do nothing

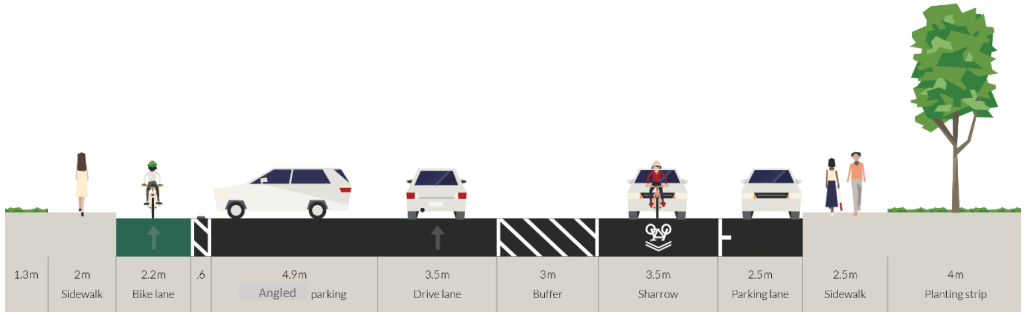


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
o	--	--	o	-	--	o	o	o	o	o	o

Route 1: Park Road

Option 7 (presented as Option 5 at workshop)

- Northbound cycle lane between angle parking and kerb within 30km/h zone (to Byron St intersection)
- Remainder of Park Road unchanged



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++	+	+	o	o	+	o	o	-	o	o	-

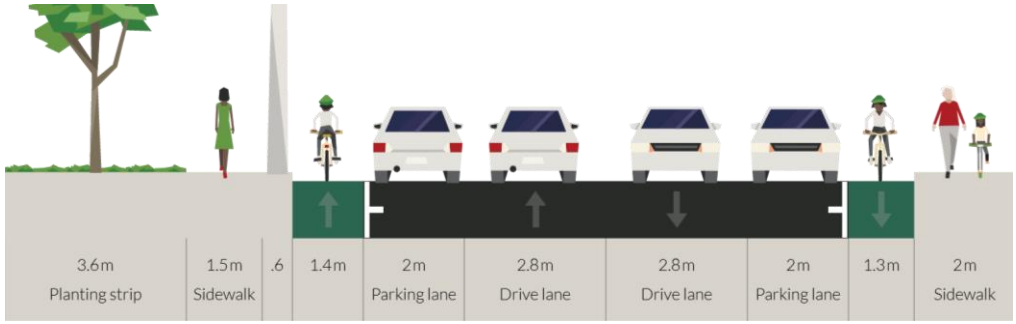
Route 1: Park Road

Option	Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
1A	++	++	++	+	++	++	+	o	-	o	o	-
2A	+	+	+	+	++	-	+	o	-	o	o	-
3	+	++	+	+	+	+	+	o	o	o	o	--
4	+	-	-	+	--	o	o	o	o	o	o	-
7	++	+	+	o	o	+	o	o	-	o	o	-
5	o	-	--	++	-	--	o	o	o	o	o	o
6	o	--	--	o	-	--	o	o	o	o	o	o

Route 2: Ira Street/Miramar Avenue

Option 1

- One-way cycle lanes (road or footpath level), each side of the street, between kerb and parking
- Remove median and reduce vehicle lane widths
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection



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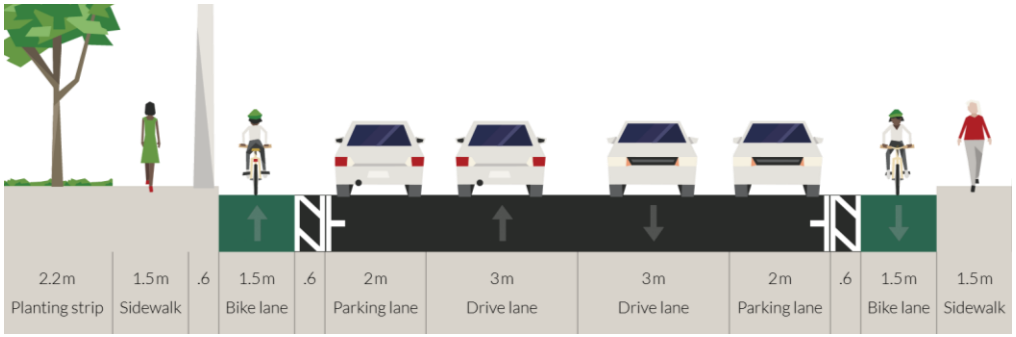
+	++	++	+	++	++	o	o	-	-	-	-

Route 2: Ira Street/Miramar Avenue

Option 1A

- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between kerb and parking. Buffer zone provided between parking and cycling lane
- Remove median. Reduce western berm to widen carriageway.
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection



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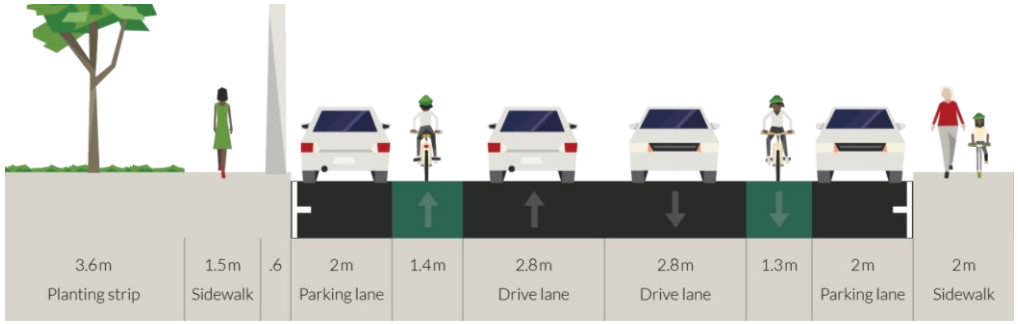
++	++	++	+	++	++	o	o	-	-	-	--

Route 2: Ira Street/Miramar Avenue

Option 2

- One-way cycle lanes (road or footpath level), each side of the street, between parking and traffic lanes
- Remove median and reduce vehicle lane widths
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection



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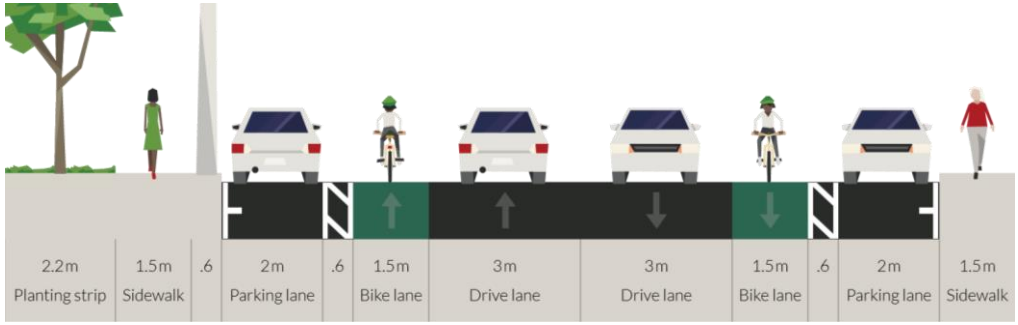
+	+	+	+	++	o	o	-	-	o	-	-

Route 2: Ira Street/Miramar Avenue

Option 2A

- One-way cycle lanes at road level, each side of the street, between parking and traffic lanes. Buffer zone provided between parking and cycling lanes.
- Remove median. Reduce western berm to widen carriageway.
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection



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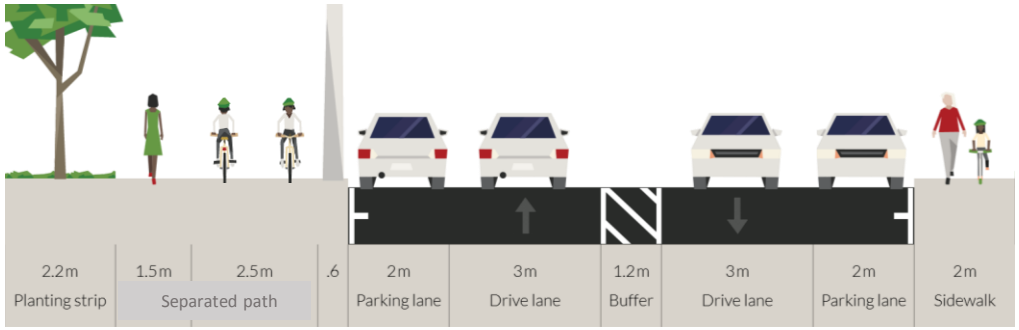
+	+	+	+	++	+	o	-	-	o	-	--

Route 2: Ira Street/Miramar Avenue

Option 3

- Two-way separated path on one side of the street. Alternatively, a two-way lane at road level.
- Reduce median width.
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection



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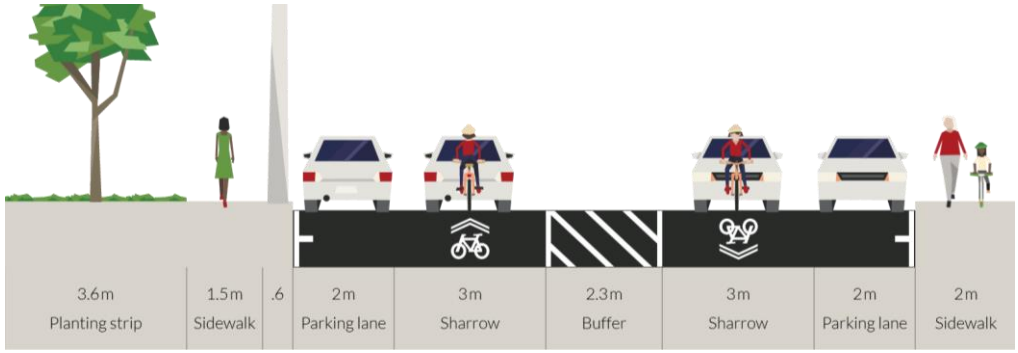
+	++	++	+	+	-	-	o	o	o	-	--

Route 2: Ira Street/Miramar Avenue

Option 4

- Mixed traffic and use of sharrow markings. Use of central median vegetation, horizontal deflections – chicanes, speed cushions etc, to actively reduce speeds.
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection



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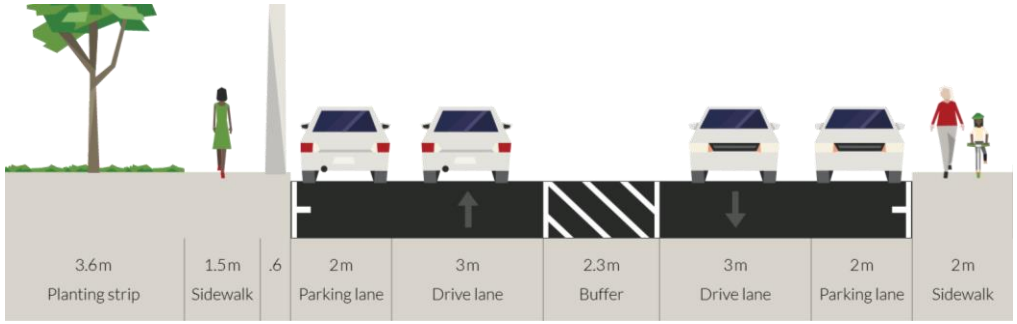
+	o	o	+	-	--	o	--	-	o	-	o

Route 2: Ira Street/Miramar Avenue

Option 5

- Reduce speeds on Ira St and Miramar Ave. Use of complementary signage and road markings to support speed reduction
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection



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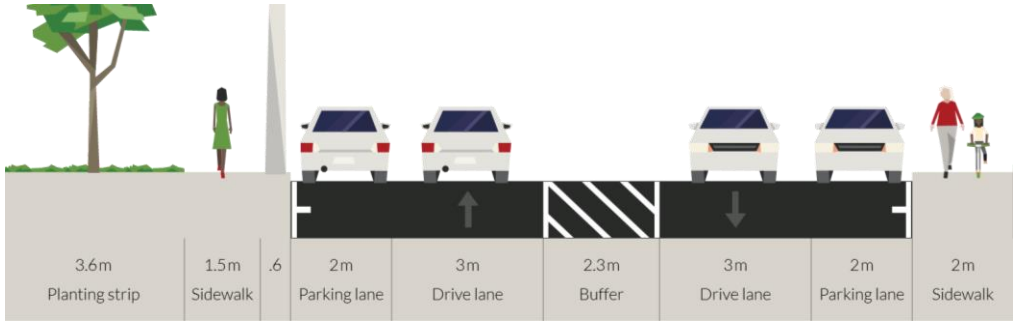
o	o	o	+	o	o	o	-	-	o	o	o

Route 2: Ira Street/Miramar Avenue

Option 6

- Do nothing



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o	o	o	o	o	o	o	o	o	o	o	o

Route 2: Ira Street/Miramar Avenue

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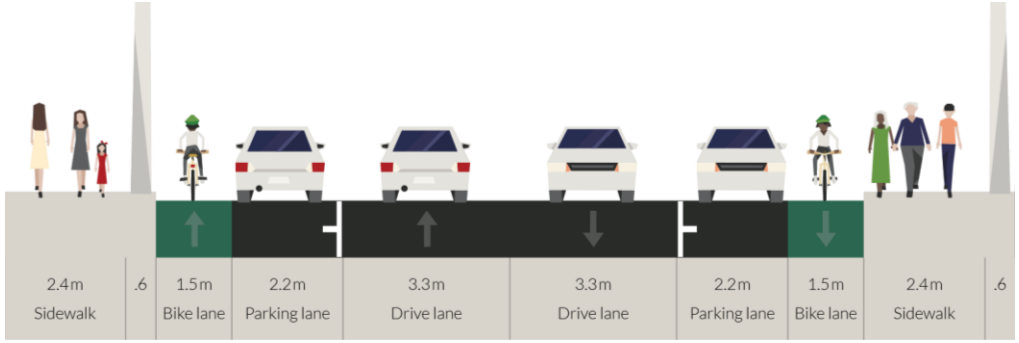
1	+	++	++	+	++	++	o	o	-	-	-	-
1A	++	++	++	+	++	++	o	o	-	-	-	--
2	+	+	+	+	++	o	o	-	-	o	-	-
2A	+	+	+	+	++	+	o	-	-	o	-	--
3	+	++	++	+	+	-	-	o	o	o	-	--
4	+	o	o	+	-	--	o	--	-	o	-	o
5	o	o	o	+	o	o	o	-	-	o	o	o
6	o	o	o	o	o	o	o	o	o	o	o	o

Route 3: Hobart/Miro/Kedah Street

Option 1

- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between kerb and parking
- Remove traffic islands
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection



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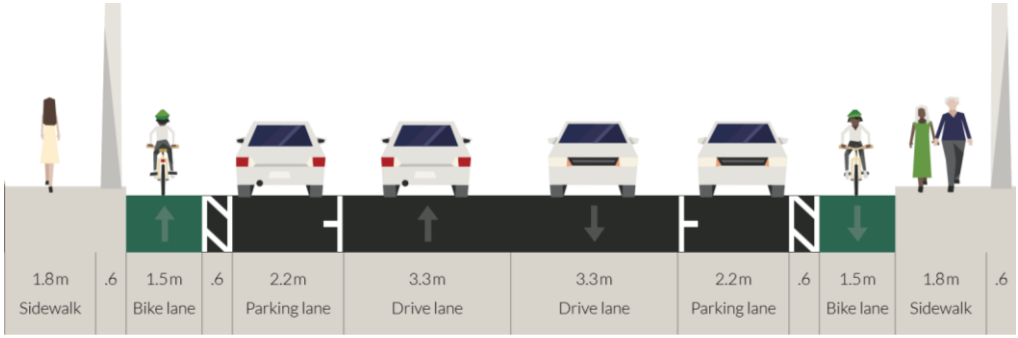
++	++	++	+	++	++	o	+	-	-	-	-

Route 3: Hobart/Miro/Kedah Street

Option 1A

- One-way cycle lanes (road or footpath level), each side of the street, between kerb and parking
- Remove traffic islands. Reduce footpath widths to widen carriageway.
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection



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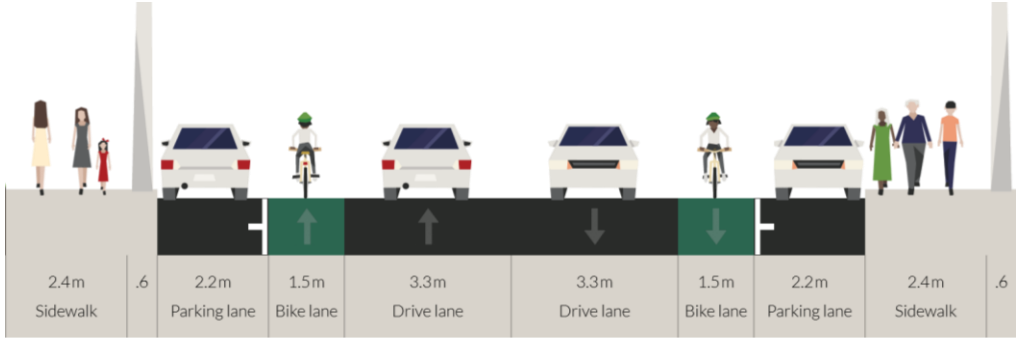
++	++	++	-	++	++	o	+	-	-	-	--

Route 3: Hobart/Miro/Kedah Street

Option 2

- One-way cycle lanes (road or footpath level), each side of the street, between kerb and parking
- Remove traffic islands
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection



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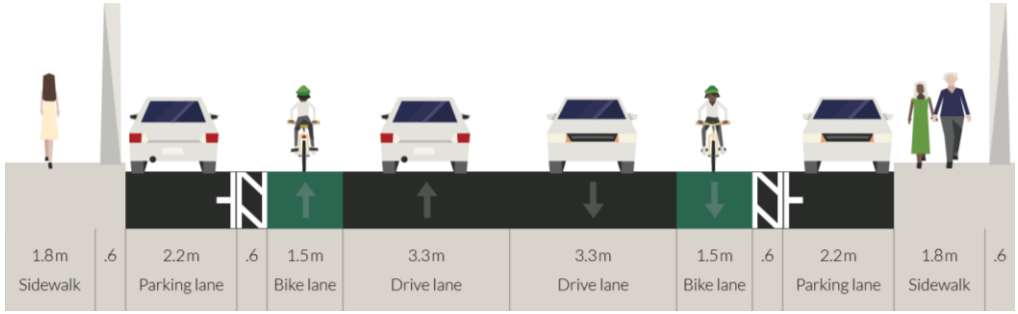
+	+	+	+	++	o	o	o	-	o	-	-

Route 3: Hobart/Miro/Kedah Street

Option 2A

- One-way cycle lanes (road or footpath level), each side of the street, between parking and traffic lanes. Buffer zone between parking and cycle lanes.
- Remove traffic islands. Reduce footpath widths to widen carriageway.
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection



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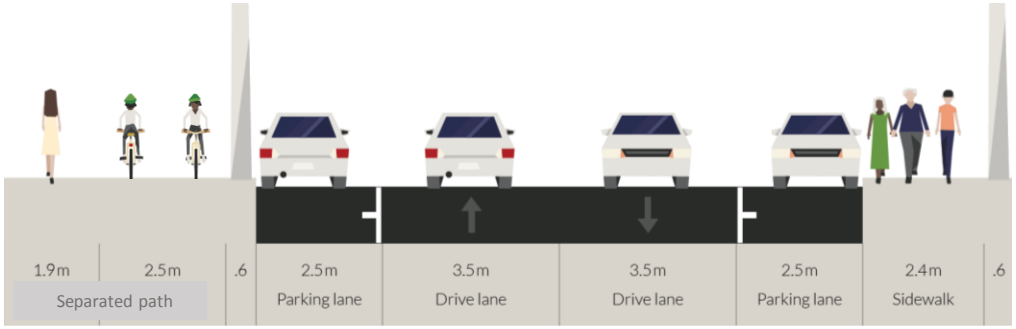
+	+	+	-	++	+	o	o	-	o	-	--

Route 3: Hobart/Miro/Kedah Street

Option 3

- Two-way separated path on one side of the street, between parking and traffic lanes. Alternatively, a two-way lane at road level.
- Remove traffic islands
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection



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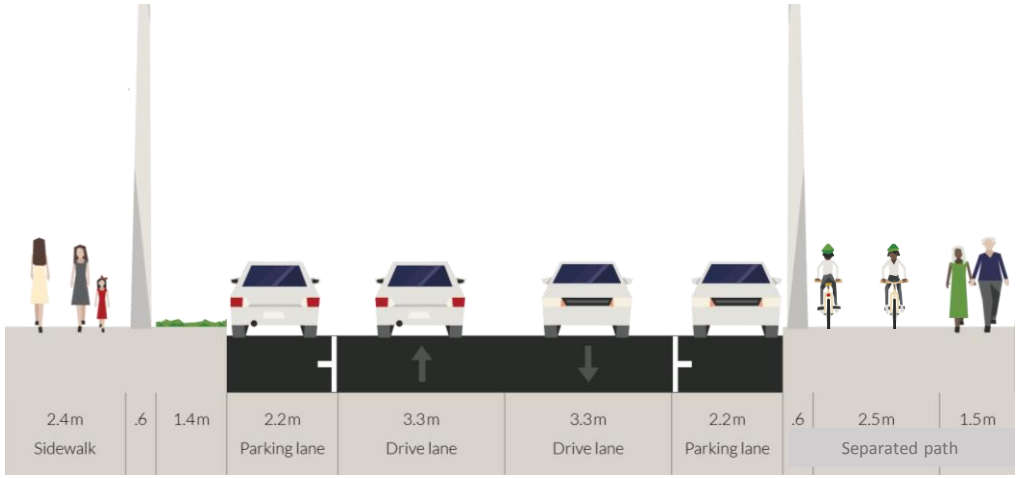
+	++	++	o	+	-	-	o	o	o	-	--

Route 3: Hobart/Miro/Kedah Street

Option 3A

- Two-way separated cycle paths on Kedah and Miro Streets only.



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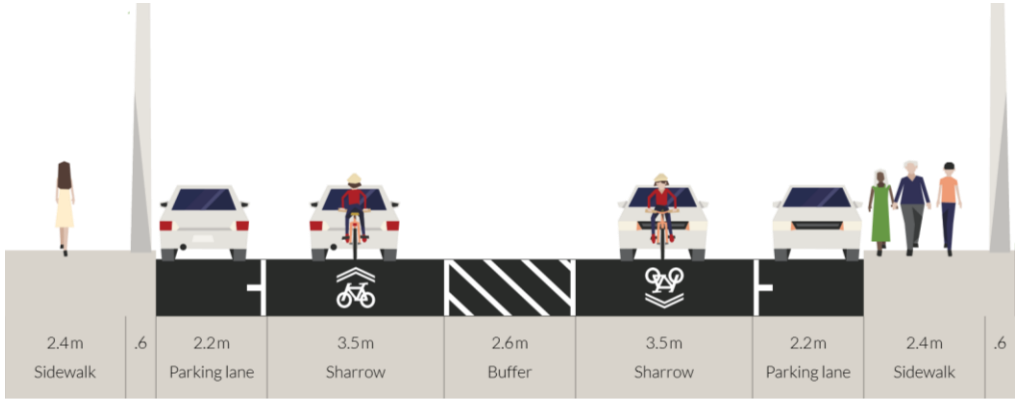
+	++	++	o	+	-	-	o	o	o	-	--

Route 3: Hobart/Miro/Kedah Street

Option 4

- Mixed traffic within 30km/h zone (to Byron St intersection) and use of sharrow markings. Use of central median with vegetation, chichanes to
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection



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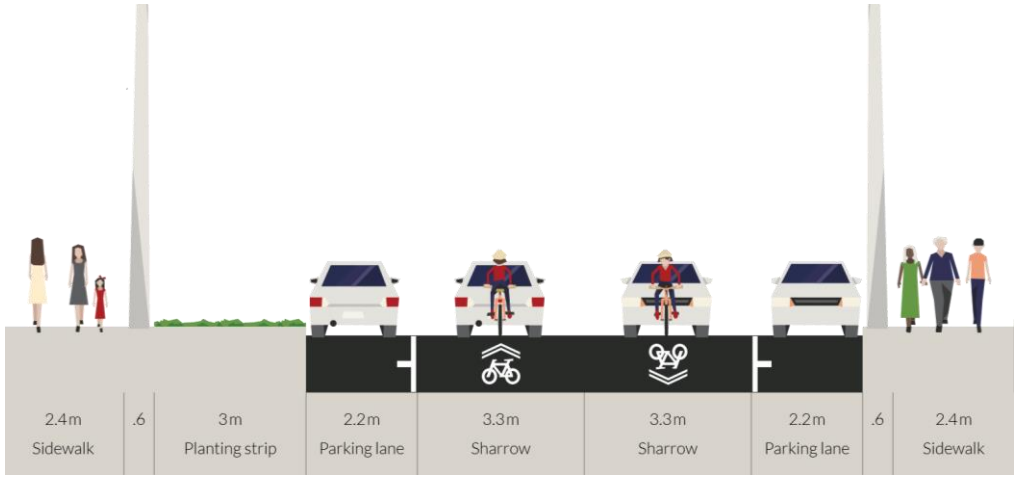
+	o	o	+	-	--	o	--	-	-	-	-

Route 3: Hobart/Miro/Kedah Street

Option 4A

- Sharrow markings on Kedah and Miro Streets only.



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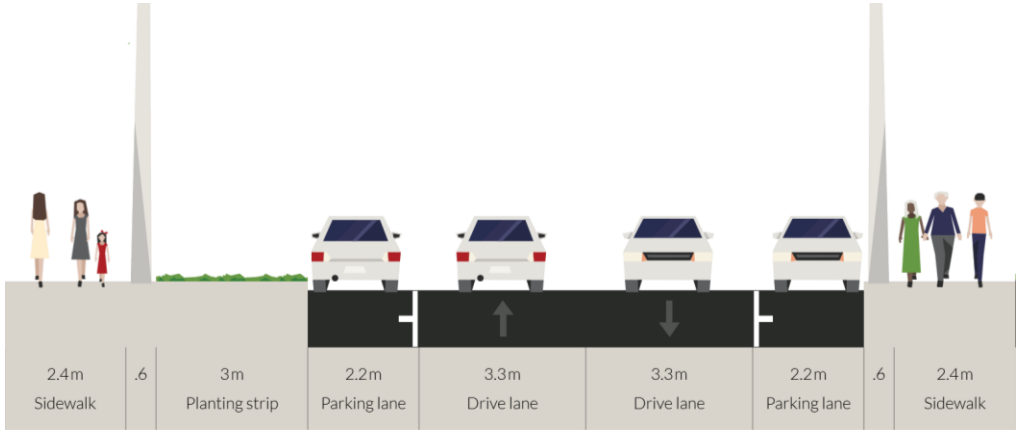
o	+	+	o	+	o	o	o	o	o	o	o

Route 3: Hobart/Miro/Kedah Street

Option 5

- Hobart St cross-section unchanged
- Reduce vehicle speed with complementary signage and markings in the traffic lanes



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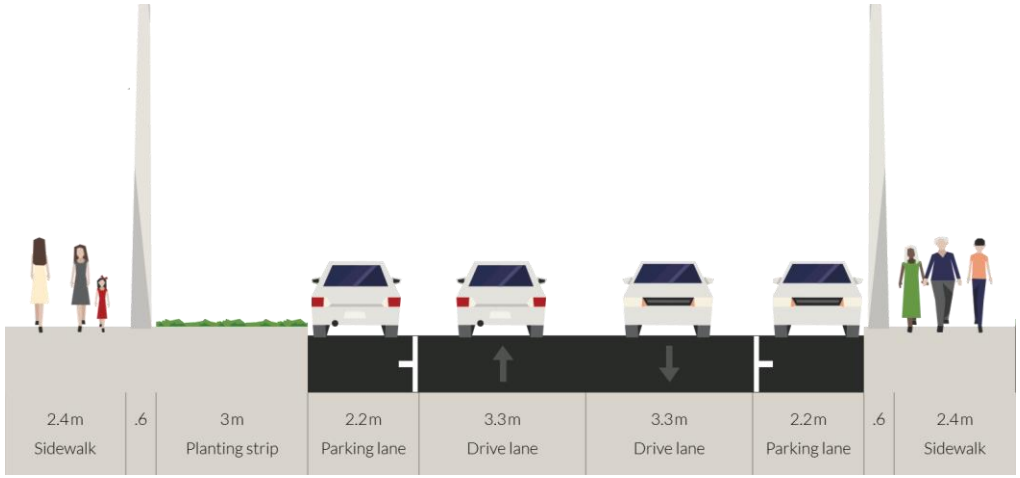
o	o	o	+	o	o	o	o	-	o	o	o

Route 3: Hobart/Miro/Kedah Street

Option 6

- Do nothing



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o	o	o	o	o	o	o	o	o	o	o	o

Route 3: Hobart/Miro/Kedah Street

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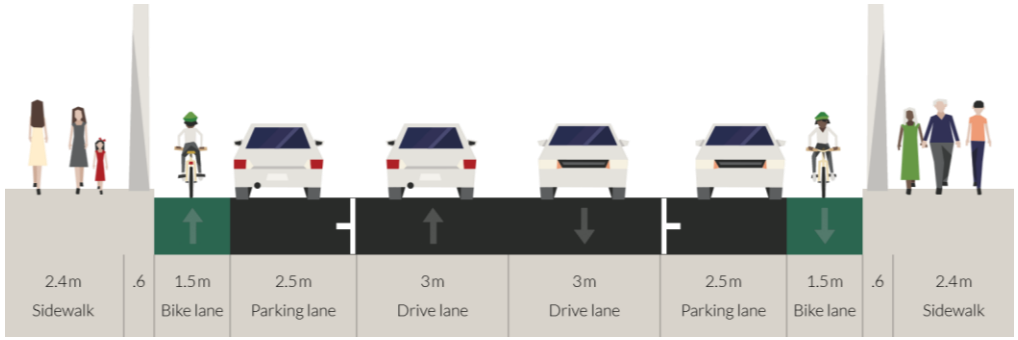
1	++	++	++	+	++	++	o	+	-	-	-	-
1A	++	++	++	-	++	++	o	+	-	-	-	--
2	+	+	+	+	++	o	o	o	-	o	-	-
2A	+	+	+	-	++	+	o	o	-	o	-	--
3	+	++	++	o	+	-	-	o	o	o	-	--
4	+	o	o	+	-	--	o	--	-	-	-	-
3A	+	++	++	o	+	-	-	o	o	o	-	-
4A	o	+	+	o	+	o	o	o	o	o	o	o
5	o	o	o	+	o	o	o	o	-	o	o	o
6	o	o	o	o	o	o	o	o	o	o	o	o

Route 4: Broadway

Option 1

- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between kerb and parking.
- Remove central painted median and traffic islands.
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway.



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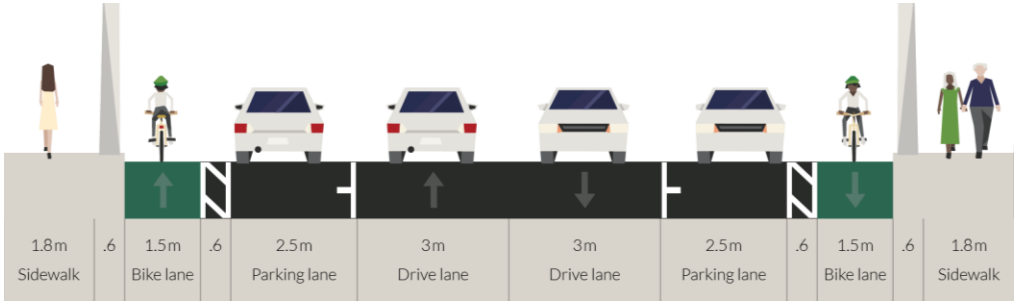
++	++	++	+	++	++	o	o	-	-	-	-

Route 4: Broadway

Option 1A

- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between kerb and parking. Buffer zone provided between parking and cycle lanes.
- Remove central painted median and traffic islands. Reduce footpath widths to widen carriageway.
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway.



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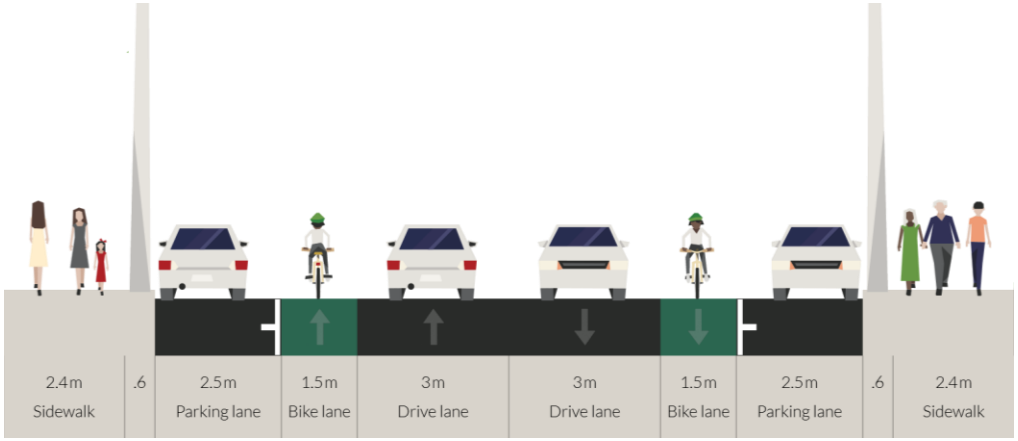
++	++	++	-	++	++	o	o	-	-	-	--

Route 4: Broadway

Option 2

- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between parking and traffic lanes.
- Remove central painted median and traffic islands.
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway.

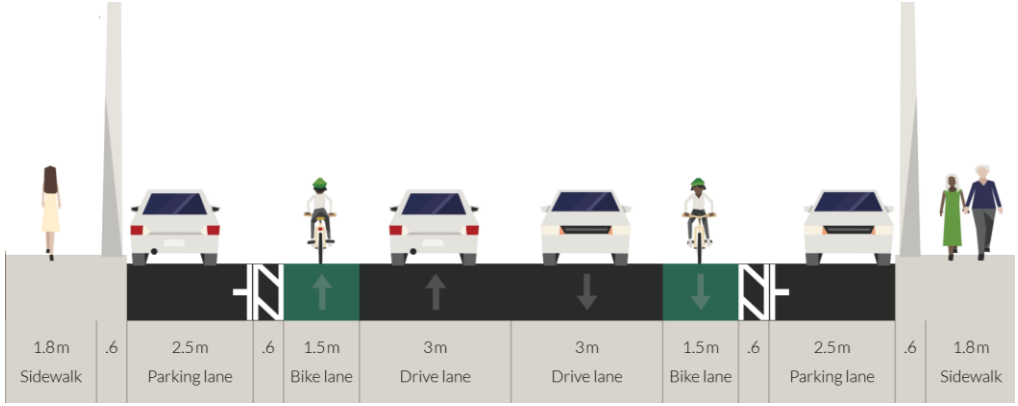


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
+	+	+	+	++	o	o	-	-	o	-	-

Route 4: Broadway

Option 2A

- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between parking and traffic lanes. Buffer zone provided between parking and cycle lanes.
- Remove central painted median and traffic islands. Reduce footpath widths to widen carriageway.
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway.

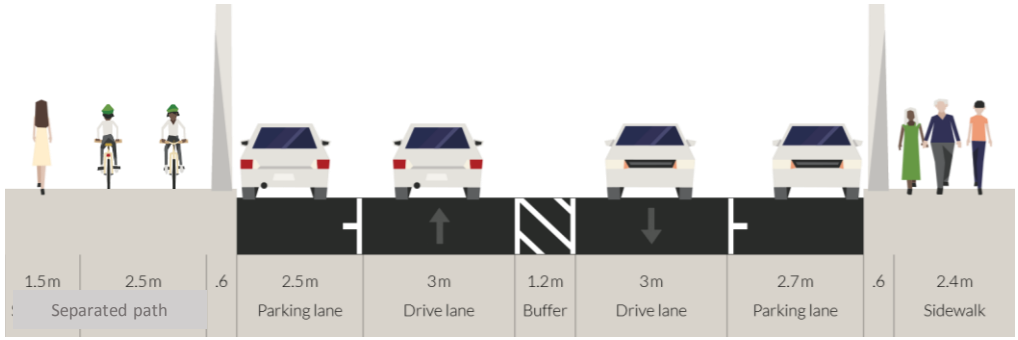


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
+	+	+	-	++	+	o	-	-	o	-	--

Route 4: Broadway

Option 3

- Two-way separated path on one side of the street. Alternatively, a two-way lane at road level.
- Reduce central painted median width and remove traffic islands.
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway.

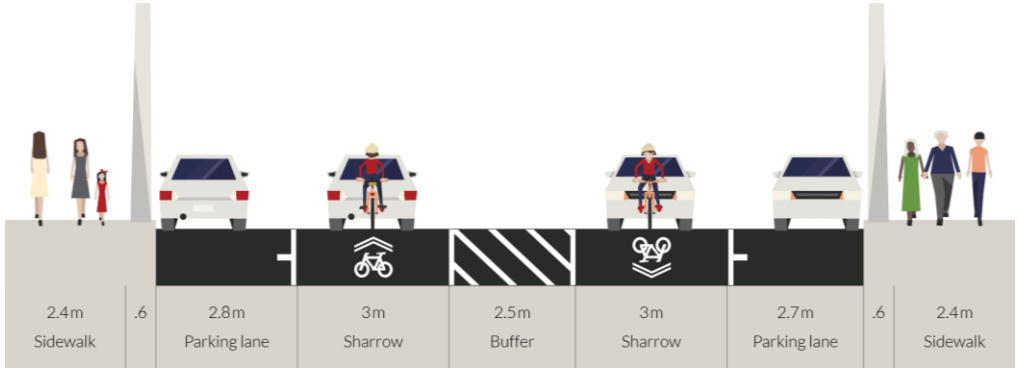


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
+	++	++	o	+	-	-	o	o	o	-	--

Route 4: Broadway

Option 4

- Mixed traffic between the Ira Street roundabout and Seatoun tunnel. 30 km/h zone and use of sharrow markings. Use of central median vegetation, horizontal deflections – chicanes, speed cushions etc, to actively reduce speeds.
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway.

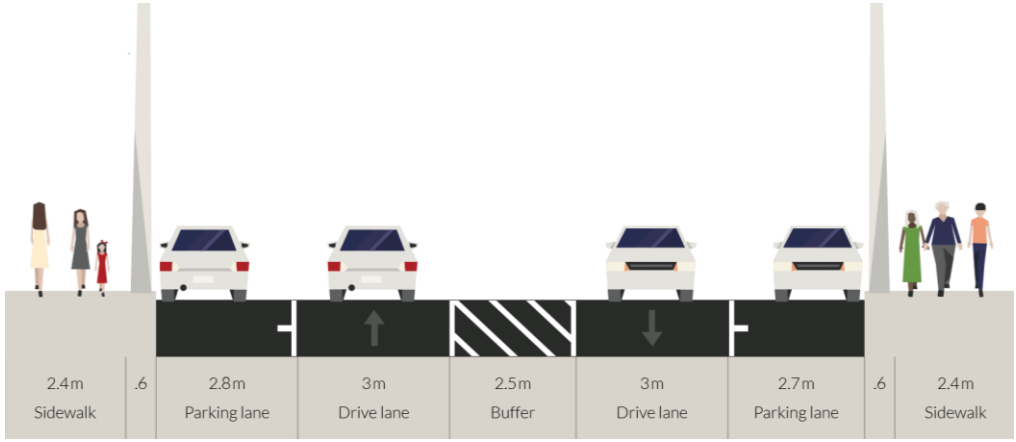


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
+	o	o	+	-	--	o	--	-	-	-	-

Route 4: Broadway

Option 5

- Reduce speeds on Broadway. Use of complementary signage and road markings to support speed reduction
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway.

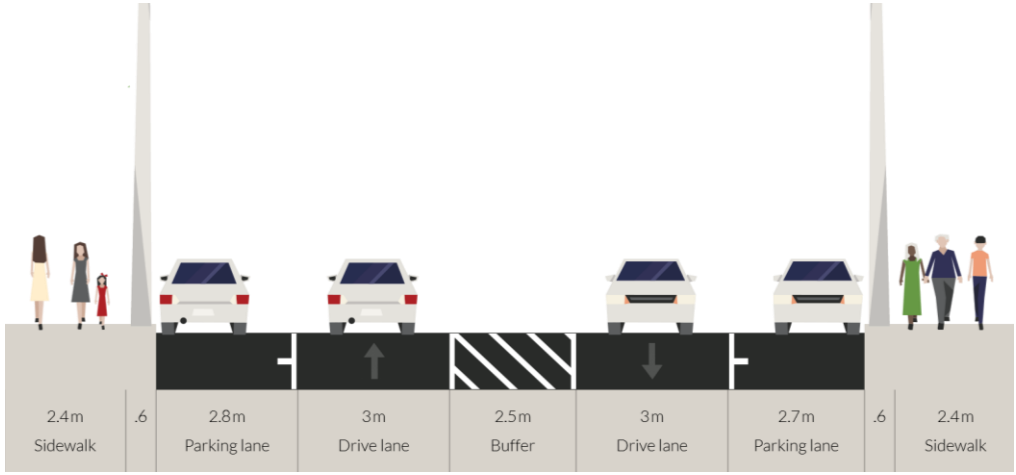


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
o	o	o	+	o	o	o	-	-	o	o	o

Route 4: Broadway

Option 6

- Do nothing



Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
o	o	o	o	o	o	o	o	o	o	o	o

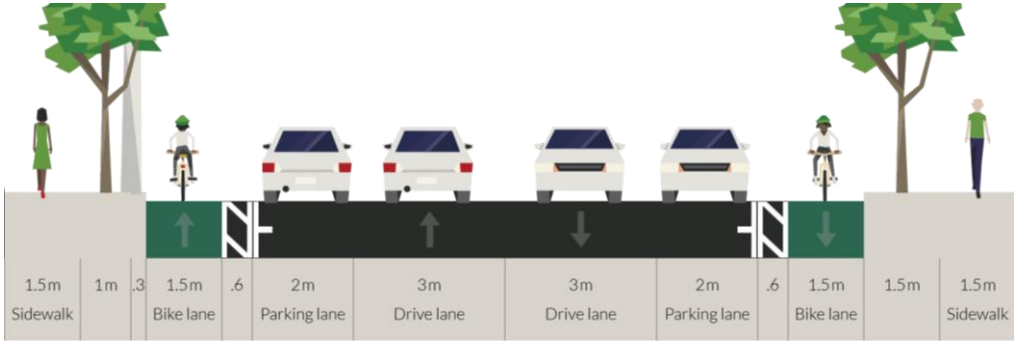
Route 4: Broadway

Option	Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
1	++	++	++	+	++	++	o	o	-	-	-	-
1A	++	++	++	-	++	++	o	o	-	-	-	-
2	+	+	+	+	++	o	o	-	-	o	-	-
2A	+	+	+	-	++	+	o	-	-	o	-	--
3	+	++	++	o	+	-	-	o	o	o	-	--
4	+	o	o	+	-	--	o	--	-	-	-	-
5	o	o	o	+	o	o	o	-	-	o	o	o
6	o	o	o	o	o	o	o	o	o	o	o	o

Route 5: Ferry/Dundas Street

Option 1A

- One-way cycle lanes (road or footpath level), each side of the street, between kerb and parking
- Remove traffic islands and central painted median.
- Remove left-turn slip lane and minimise kerb radii at Inglis Street. Reduce crossing distance at Ventnor Street. New pedestrian crossing point near Seatoun tunnel. Improve lighting and signage at tunnel

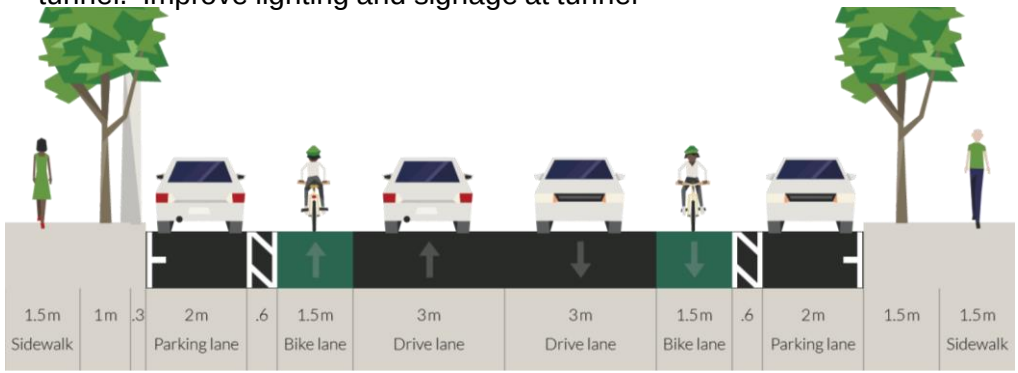


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
++	++	++	+	++	++	o	o	-	-	-	-

Route 5: Ferry/Dundas Street

Option 2A

- One-way cycle lanes at road level, each side of the street, between parking and traffic lanes. Buffer zone between parking and cycle lanes Remove traffic islands
- Remove traffic islands and central painted median.
- Remove left-turn slip lane and minimise kerb radii at Inglis Street. Reduce crossing distance at Ventnor Street. New pedestrian crossing point near Seatoun tunnel. Improve lighting and signage at tunnel

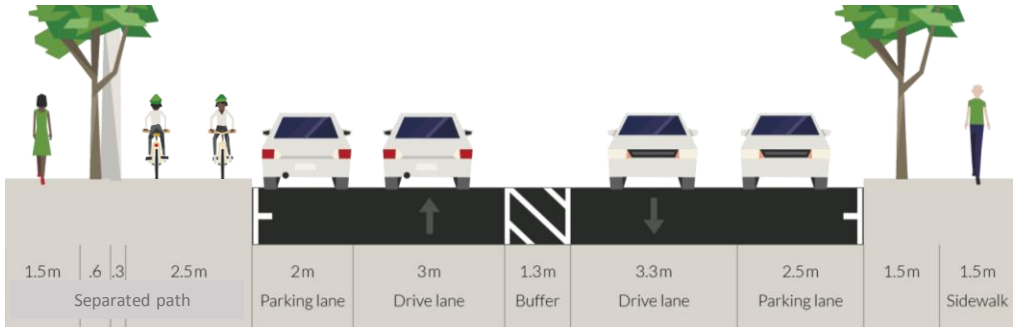


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
+	+	+	+	++	+	o	-	-	o	-	-

Route 5: Ferry/Dundas Street

Option 3

- Two-way separated path on one side of the street. Alternatively, a two-way lane at road level.
- Remove traffic islands and reduce central painted median width.
- Remove left-turn slip lane and minimise kerb radii at Inglis Street. Reduce crossing distance at Ventnor Street. New pedestrian crossing point near Seatoun tunnel. Improve lighting and signage at tunnel

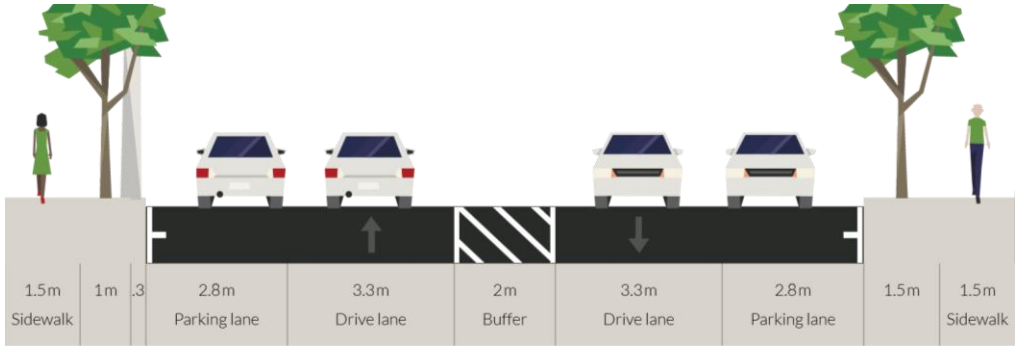


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
+	++	+	o	+	-	-	o	o	o	-	--

Route 5: Ferry/Dundas Street

Option 4

- Mixed traffic between the Seatoun tunnel and Inglis Street. Extend 30kph zone; use of central median vegetation, horizontal deflections, chicanes, speed cushions etc to actively reduce speeds.
- Remove left-turn slip lane and minimise kerb radii at Inglis Street. Reduce crossing distance at Ventnor Street. New pedestrian crossing point near Seatoun tunnel. Improve lighting and signage at tunnel

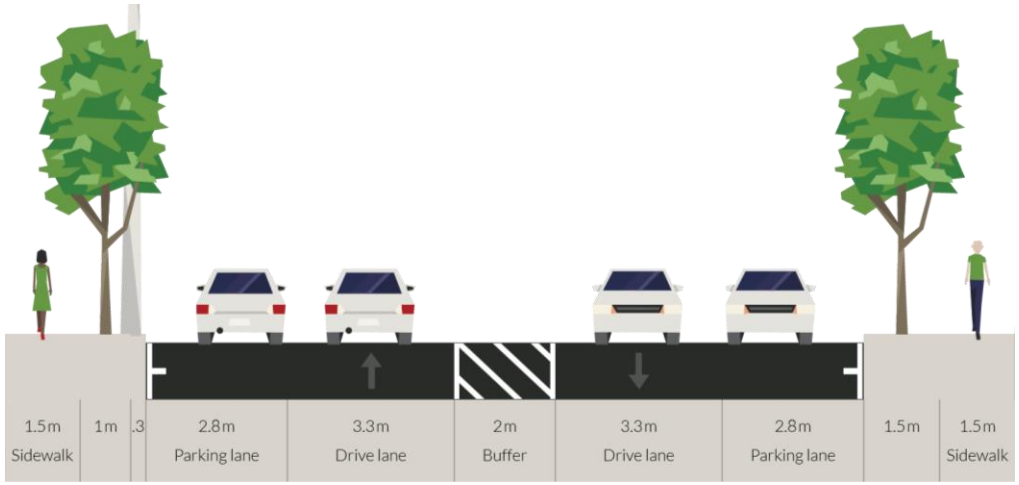


Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
+	o	o	+	-	--	o	--	-	-	-	o

Route 5: Ferry/Dundas Street

Option 6

- Do nothing



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o	o	o	o	o	o	o	o	o	o	o	o

Route 5: Ferry/Dundas Street

Option	Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost
1A	++	++	++	+	++	++	o	o	-	-	-	-
2A	+	+	+	+	++	+	o	-	-	o	-	-
3	+	++	+	o	+	-	-	o	o	o	-	--
4	+	o	o	+	-	--	o	--	-	-	-	o
6	o	o	o	o	o	o	o	o	o	o	o	o

Appendix D – Long List to Short List Assessments

Park Road Long List to Short List Assessment

The short listing of the long list of treatment options for Park Road was carried out during Workshop 4 on Wednesday 14 June and is summarised in the table, with more detail provided below.

The Working Group was asked:

- Do you agree with assessments / scoring?
- What is good about this option?
- Suggestions for improvements to options

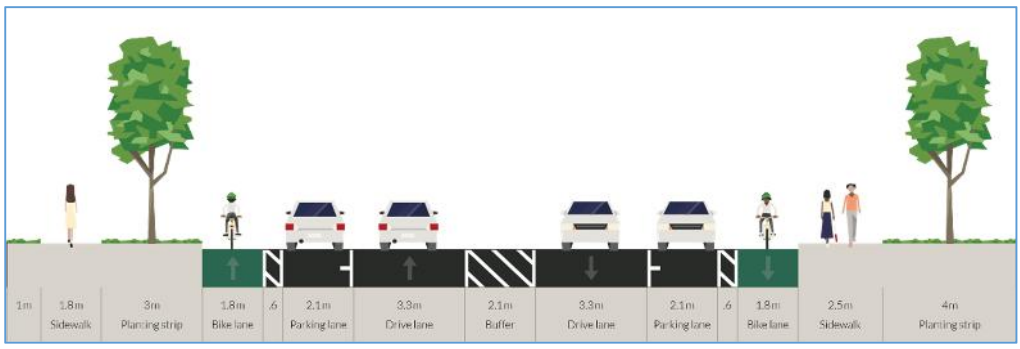
The Working Group was also asked to identify their preferred option (using a yellow sticker) and the option they do not support (using a red sticker). The numbers in the table below indicate the number of votes received for each option.

Short List of Treatment Options

No.	Description	1st	No		Short List
1A	One-way cycle lanes between kerb & parking, car door buffer zone	2	1	► Carried forward	Supported if cycleway height raised above road level
2A	One-way cycle lanes between parking & traffic lane, car door buffer zone	3	1	► Carried forward	Supported but lower speeds are needed
3	Two-way separated path between footpath & parking	2	1	► Carried forward	Good separation between pedestrians and cyclists needed
4	Mixed traffic, 30 km/h speed, sharrows	0	3	X Not progressed	Did not score well against MCA criteria and not supported at workshop
5	Reduced speed	0	3	X Not progressed	Not supported but noted need to reduce speeds on Park Road
6	Do Nothing	0	0	X Not progressed	Not supported, improvements needed to make this route safer
7	Northbound cycle lane between angle parking and kerb (within existing 30km/h zone only)	0	1	X Not progressed	Did not score well against MCA criteria and not supported at workshop

Long List to Short List Discussion

Option 1A: One-way cycle lanes between kerb and parking, car door buffer zone



- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between kerb and parking. Buffer zone provided between parking and cycle lanes
- Reduced median and parking lane widths
- Alter intersections at Rex St, Rotherham Tce and Brussels St to reduce crossing distances, increase visibility and reduce speeds

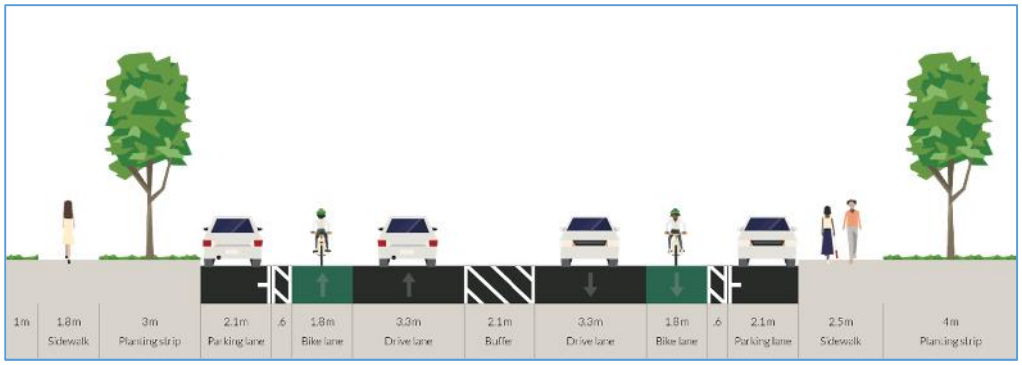
Workshop Comments/ Discussion

- At kerb height. Wider cycle lane to allow door opening
- Great. Would be even better if the cycle lane was at a different level
- Put cycle lanes at a different level (Copenhagen lanes) and widen to 2m to allow for overtaking
- Planting in median – we want to reduce speed?

Determination

- It was agreed to **short list this option**, providing the cycleway height is raised above the height of the road

Option 2A: One-way cycle lanes between parking and traffic lane, car door buffer zone



- One-way cycle lanes at road level, each side of the street, between parking and traffic lanes. Buffer zone between parking and cycle lanes
- Reduce median and parking lane widths

- Alter intersections at Rex St, Rotherham Tce and Brussels St to reduce crossing distances, increase visibility and reduce speeds

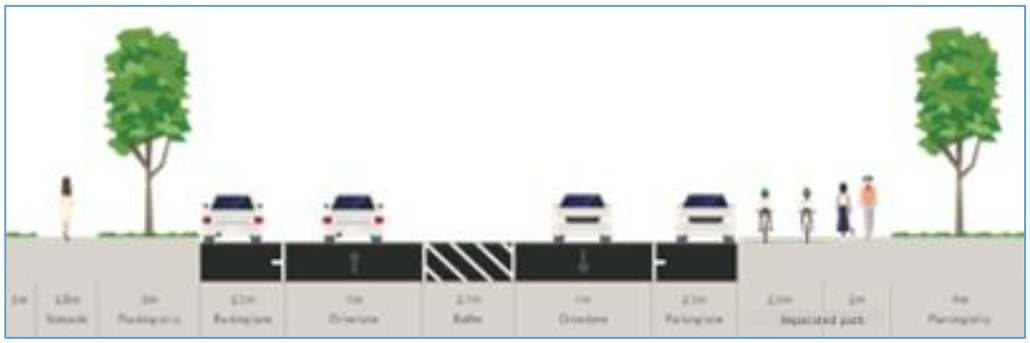
Workshop Comments/ Discussion

- Narrow traffic lanes a little bit more and create small buffer between cycle lanes and moving traffic (take space from median too)
- Could include some soft hit posts to add separation in areas with no parking

Determination

- It was agreed to **short list this option**, noting that lower speeds are needed for this option to attract the interested but concerned, particularly due to current non-compliance with speed limits

Option 3: Two-way separated path between footpath and parking



- Two-way separated path on one side of the street, between footpath and parking. Alternatively, a two-way lane at road level
- Reduce median and parking lane widths
- Alter intersections at Rex St, Rotherham Tce and Brussels St to reduce crossing distances, increase visibility and reduce speeds

Workshop Comments/ Discussion

- Switch the pedestrian and cycle paths around so the cycle lane is on the road side.
- Preference would be on the school side of Park Road

Determination

- It was agreed to **short list this option**, noting that good separation between pedestrians and cyclists is needed

Option 4: Mixed traffic, 30 km/h speed, sharrows

- Mixed traffic within 30km/h zone (to Byron St intersection) and use of sharrow markings
- Remainder of Park Road unchanged
- Alter intersections at Rex St, Rotherham Tce and Brussels St to reduce crossing distances, increase visibility and reduce speeds

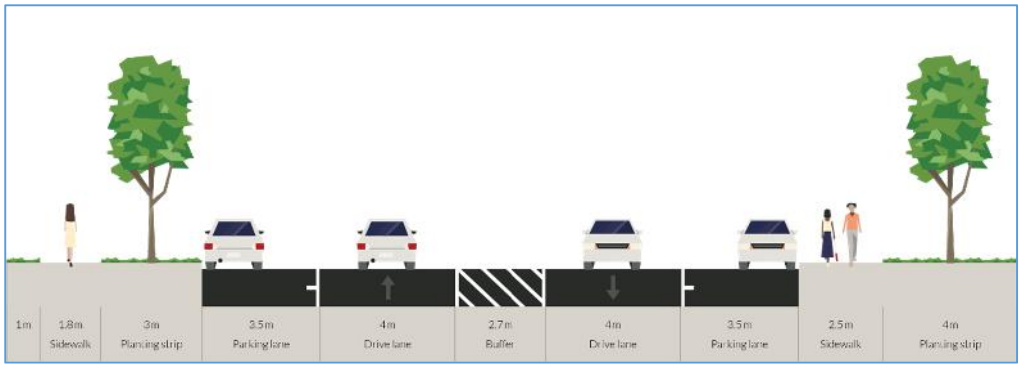
Workshop Comments/ Discussion

- I don't think the LOS for cyclists is high

Determination

- It was agreed that this **option would not be progressed**

Option 5: Reduced speed



- Park Road cross-section unchanged
- Reduce speeds with complementary signage and markings in the traffic lanes

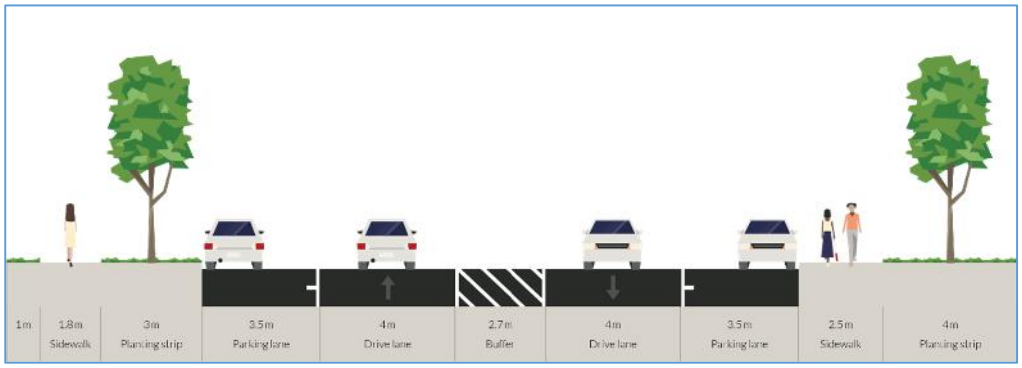
Workshop Comments/ Discussion

- Very hard to reduce speeds in such a wide street
- What is good about this option? Reducing speed

Determination

- It was agreed that this **option would not be progressed** but that there is a need to reduce speeds on Park Road

Option 6: Do Nothing



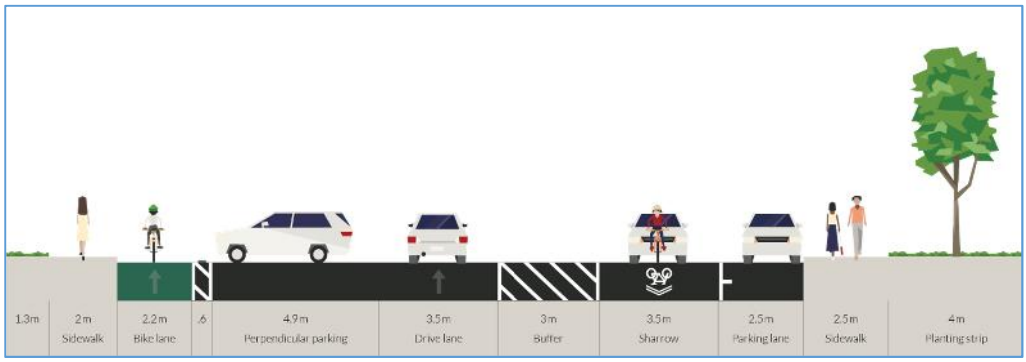
Workshop Comments/ Discussion

- None

Determination

- It was agreed that this **option would not be progressed**, improvements are needed to make this route safer

Option 7: Northbound cycle lane between angle parking and kerb (within existing 30km/h zone only)



- Northbound cycle lane between angle parking and kerb within 30km/h zone (to Byron St intersection)
- Remainder of Park Road unchanged

Workshop Comments/ Discussion

- Not really a high LOS for cyclists

- Needs a real kerb to park against
- There is also angle parking by Rotherham Street
- Could you have a protected bike line as shown on left and an outside of the cars bike lane on right?

Determination

- It was agreed that this **option would not be progressed**

MCA Scoring

Route 1: Park Road

Option	Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost	
1A	++	++	++	+	++	++	+	o	-	o	o	-	← Short Listed
2A	+	+	+	+	++	-	+	o	-	o	o	-	← Short Listed
3	+	++	+	+	+	+	+	o	o	o	o	--	← Short Listed
4	+	-	-	+	--	o	o	o	o	o	o	-	
7	++	+	+	o	o	+	o	o	-	o	o	-	
5	o	-	--	++	-	--	o	o	o	o	o	o	
6	o	--	--	o	-	--	o	o	o	o	o	o	

Ira Street/ Miramar Avenue Long List to Short List Assessment

The short listing of the long list of treatment options for Ira Street was carried out during Workshop 4 on Wednesday 14 June and is summarised in the table, with more detail provided below.

The Working Group was asked:

- Do you agree with assessments / scoring?
- What is good about this option?
- Suggestions for improvements to options

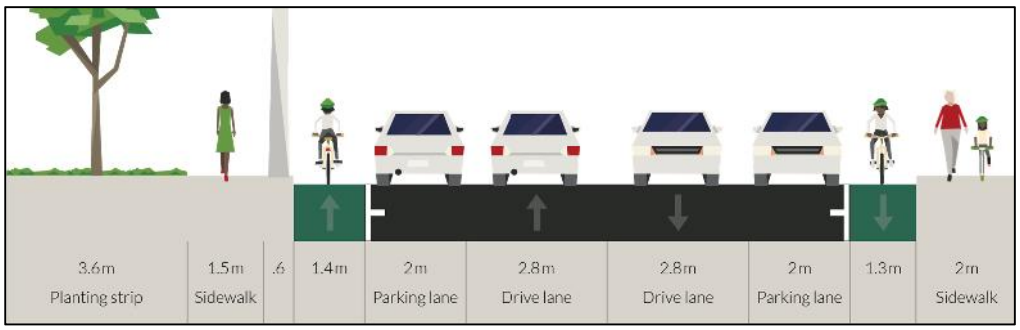
The Working Group was also asked to identify their preferred option (using a yellow sticker) and the option they do not support (using a red sticker). The numbers in the table below indicate the number of votes received for each option.

Short List of Treatment Options

No.	Description	1st	No		Short List
1	One-way cycle lanes between kerb & parking	1	3	X Not progressed	Option 1A preferred for protection for cyclists from car doors
1A	One-way cycle lanes between kerb & parking, car door buffer zone	2	2	► Carried forward	Supported if cycleway height raised above road level
2	One-way cycle lanes between parking & traffic lane	0	5	X Not progressed	Option 2A preferred for protection for cyclists from car doors
2A	One-way cycle lanes between parking & traffic lane, car door buffer zone	3	0	► Carried forward	Supported but lower speeds are needed
3	Two-way separated path between footpath & parking	3	1	► Carried forward	Good separation between pedestrians and cyclists needed
4	Mixed traffic, 30 km/h speed, sharrows	0	0	X Not progressed	Did not score well against MCA criteria and not supported at workshop
5	Reduced speed	1	1	X Not progressed	Not supported but noted need to reduce speeds on Ira Street
6	Do Nothing	0	0	X Not progressed	Not supported, improvements needed to make this route safer

Long List to Short List Discussion

Option 1: One-way cycle lanes between kerb and parking



- One-way cycle lanes (road or footpath level), each side of the street, between kerb and parking
- Remove median and reduce vehicle lane widths
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection

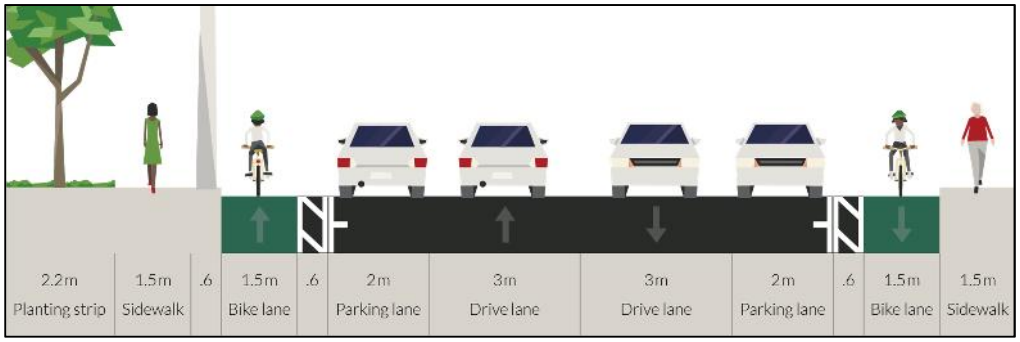
Workshop Comments/ Discussion

- Nothing good about this option, it looks like Island Bay

Determination

- It was agreed this **option would not be progressed**

Option 1A: One-way cycle lanes between kerb and parking, car door buffer zone



- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between kerb and parking. Buffer zone provided between parking and cycling lane
- Remove median. Reduce western berm to widen carriageway.
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection

Workshop Comments/ Discussion

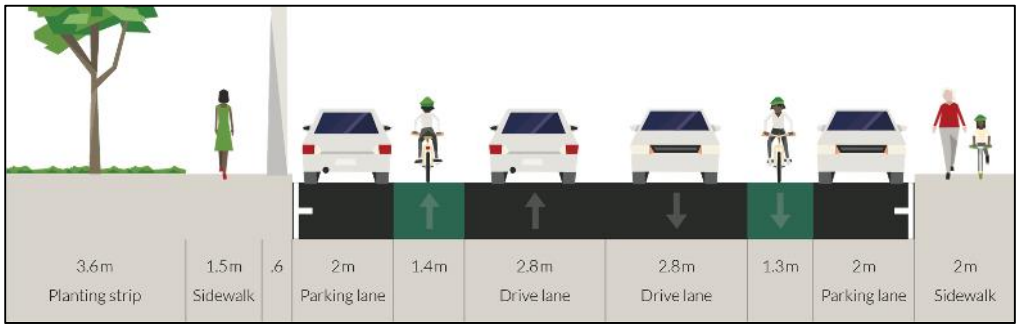
- Need real gutter to park against

- Support for removing central median

Determination

- It was agreed to **short list this option**, providing the cycleway height is raised above the height of the road
- Particular support was given to altering the intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds and shifting the existing pedestrian crossing closer to this intersection
- It was noted that if the median is removed, consideration needs to be given to providing pedestrian crossing facilities and providing space for turning movements at intersections (possibly via small numbers of parking spaces being removed at these locations)
- There was support for removing parking along the section south of Otaki Street adjacent to the brick wall section to gain more space for pedestrian and cycle improvements
- Confirmation needed that this option won't affect existing encroachments, it is not expected that this will be accepted by the community

Option 2: One-way cycle lanes between parking and traffic lane



- One-way cycle lanes (road or footpath level), each side of the street, between parking and traffic lanes
- Remove median and reduce vehicle lane widths
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection

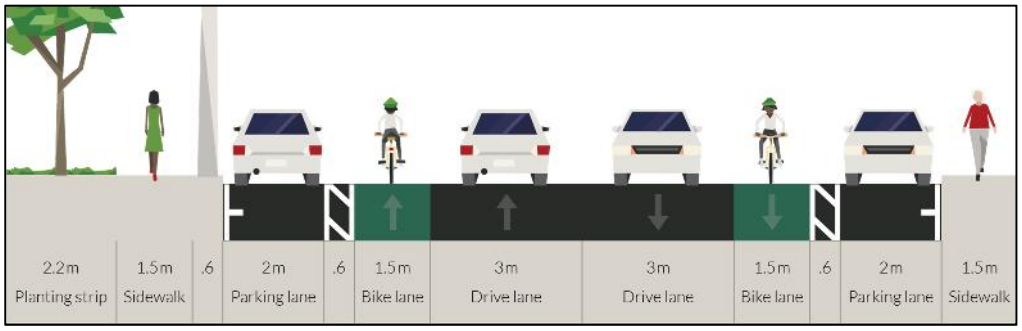
Workshop Comments/Discussion

- Dangerous widths - 2.8m traffic lanes too narrow if shared with buses, are 1.3m cycle lanes wide enough? Lack of car door buffer zone

Determination

- It was agreed that this **option would not be progressed**

Option 2A: One-way cycle lanes between parking and traffic lane, car door buffer zone



- One-way cycle lanes at road level, each side of the street, between parking and traffic lanes. Buffer zone provided between parking and cycling lanes
- Remove median. Reduce western berm to widen carriageway
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection

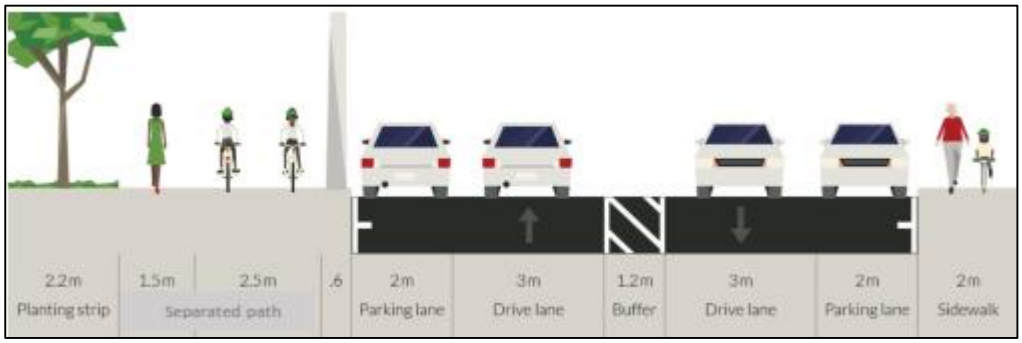
Workshop Comments/Discussion

- Need lower speeds for this option
- Tight, but as good as it gets
- Support for removing central median

Determination

- It was agreed to **short list this option**, noting that lower speeds are needed for this option to attract the interested but concerned, particularly due to current non-compliance with speed limits
- Particular support was given to altering the intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds and shifting the existing pedestrian crossing closer to this intersection
- It was noted that if the median is removed, consideration needs to be given to providing pedestrian crossing facilities and providing space for turning movements at intersections (possibly via small numbers of parking spaces being removed at these locations)
- There was support for removing parking along the section south of Otaki Street adjacent to the brick wall section to gain more space for pedestrian and cycle improvements
- Confirmation needed that this option won't affect existing encroachments, it is not expected that this will be accepted by the community

Option 3: Two-way separated path between footpath and parking



- Two-way separated path on one side of the street, between footpath & parking. Alternatively, a two-way lane at road level
- Reduce median width
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection

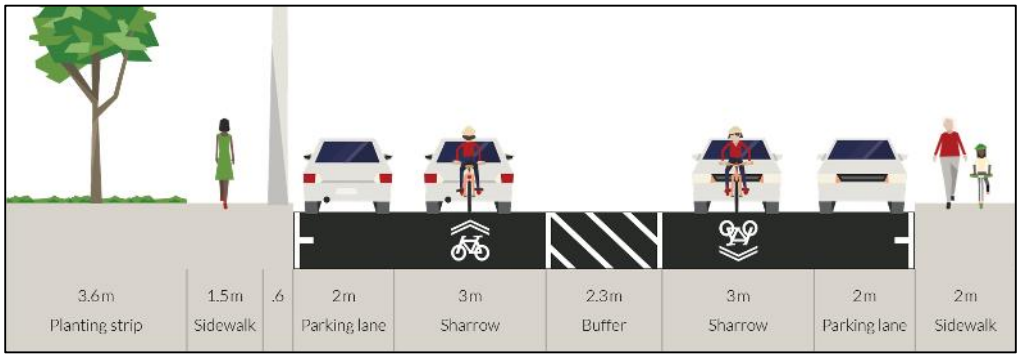
Workshop Comments/Discussion

- Would you need to move street lighting?
- Is the shared cycle path wide enough?
- No need to retain central median
- Need good separation between pedestrians and cyclists
- Pedestrian numbers not very high? If so, this could work if faster riders stick to the road

Determination

- It was agreed to **short list this option**, noting that good separation between pedestrians and cyclists is needed
- Particular support was given to altering the intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds and shifting the existing pedestrian crossing closer to this intersection
- It was noted that if the median can be removed and if it is, consideration needs to be given to providing pedestrian crossing facilities and providing space for turning movements at intersections (possibly via small numbers of parking spaces being removed at these locations)
- There was support for removing parking along the section south of Otaki Street adjacent to the brick wall section to gain more space for pedestrian and cycle improvements
- Confirmation needed that this option won't affect existing encroachments, it is not expected that this will be accepted by the community

Option 4: Mixed traffic, 30 km/h speed, sharrows



- Mixed traffic and use of sharrow markings. Use of central median vegetation, horizontal deflections – chicanes, speed cushions etc, to actively reduce speeds.
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection

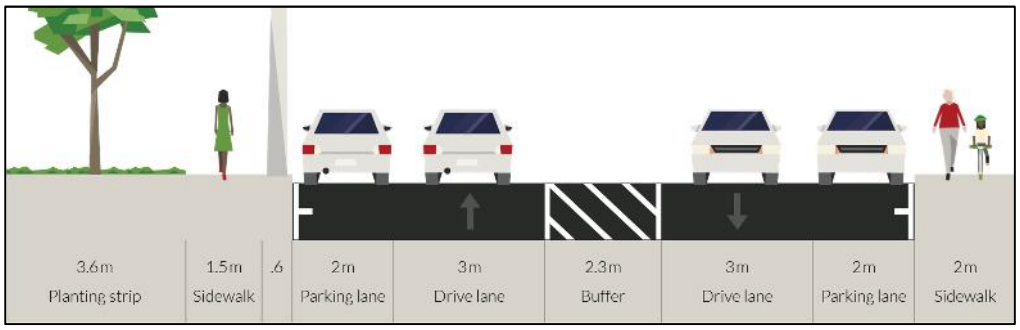
Workshop Comments/ Discussion

- No need to retain central median x2
- Consider visibility of right turn from Devonshire Road into Ira Street (southbound). Bus stop obscures view

Determination

- It was agreed that this **option would not be progressed**

Option 5: Reduced speed



- Reduce speeds on Ira St and Miramar Ave. Use of complementary signage and road markings to support speed reduction
- Alter intersection at Chelsea St/ Para Road to reduce crossing distances, increase visibility and reduce speeds. Shift existing pedestrian crossing closer to this intersection

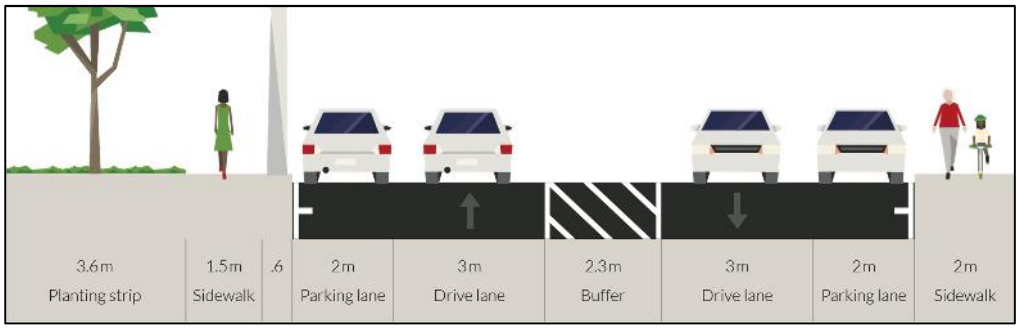
Workshop Comments/ Discussion

- No need to retain central median

Determination

- It was agreed that this **option would not be progressed** but that there is a need to reduce speeds on Ira Street, providing it doesn't lead to rat-running, e.g. Hobart and Devonshire Road to avoid Ira Street

Option 6: Do Nothing



Workshop Comments/ Discussion

- None

Determination

- It was agreed that this **option would not be progressed**, improvements are needed to make this route safer

MCA Scoring

Route 2: Ira Street/Miramar Avenue

Option	Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost	
1	+	++	++	+	++	++	o	o	-	-	-	-	
1A	++	++	++	+	++	++	o	o	-	-	-	--	← Short Listed
2	+	+	+	+	++	o	o	-	-	o	-	-	
2A	+	+	+	+	++	+	o	-	-	o	-	--	← Short Listed
3	+	++	++	+	+	-	-	o	o	o	-	--	← Short Listed
4	+	o	o	+	-	--	o	--	-	o	-	o	
5	o	o	o	+	o	o	o	-	-	o	o	o	
6	o	o	o	o	o	o	o	o	o	o	o	o	

Hobart/ Miro/ Kedah Street Long List to Short List Assessment

The short listing of the long list of treatment options for Hobart/ Miro/ Kedah Street was carried out during Workshop 4 on Wednesday 14 June and is summarised in the table, with more detail provided below.

The Working Group was asked:

- Do you agree with assessments / scoring?
- What is good about this option?
- Suggestions for improvements to options

The Working Group was also asked to identify their preferred option (using a yellow sticker) and the option they do not support (using a red sticker). The numbers in the table below indicate the number of votes received for each option.

Short List of Treatment Options

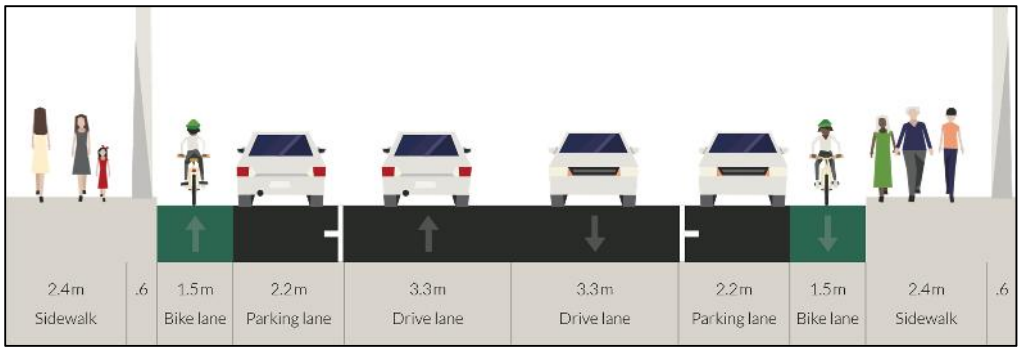
No.	Description	1st	No		Short List
1	One-way cycle lanes between kerb & parking	2	1	X Not progressed	Option 1A preferred for protection for cyclists from car doors
1A	One-way cycle lanes between kerb & parking, car door buffer zone	2	1	► Carried forward	Supported providing footpath widths not reduced & trees retained
2	One-way cycle lanes between parking & traffic lane	0	4	X Not progressed	Option 2A preferred for protection for cyclists from car doors
2A	One-way cycle lanes between parking & traffic lane, car door buffer zone	1	0	► Carried forward	Supported providing footpath widths not reduced & trees retained
3	Two-way separated path between footpath & parking	0	2	X Not progressed	Not supported due to tree removal required and lower traffic volumes
3A	Two-way separated path (Miro/ Kedah only)	3	1	► Carried forward	Supported noting this is only for Miro/ Kedah St section
4	Mixed traffic, 30 km/h speed, sharrows	0	1	X Not progressed	Did not score well against MCA criteria and not supported at workshop
4A	Mixed traffic, 30 km/h speed, sharrows (Miro/ Kedah only)	1	1	► Carried forward	Supported noting this is only for Miro/ Kedah St section
5	Reduced speed	0	1	X Not progressed	Not supported at workshop
6	Do Nothing	0	0	X Not progressed	Not supported unless 'Do Nothing for now' is an option

Hobart Street discussion

- **Route** – it was questioned whether Hobart St is the best route for cyclists, because of buses and an alternative route along Miro/ Kauri was proposed. It was noted that we are unable to change the routes at this stage of the project
- **Removal of parking from one side of street -** It was indicated that there would not be support to remove parking from one side of street, as the Council has just signalled that they will protect resident's parking in this area (P24 hr restrictions)
- **Do Nothing for Now -** It was questioned whether there is an option to 'Do Nothing for now' on Hobart St given questions around route determination and lack of clear support for any options

Long List to Short List Discussion

Option 1: One-way cycle lanes between kerb and parking



- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between kerb and parking
- Remove traffic islands
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection

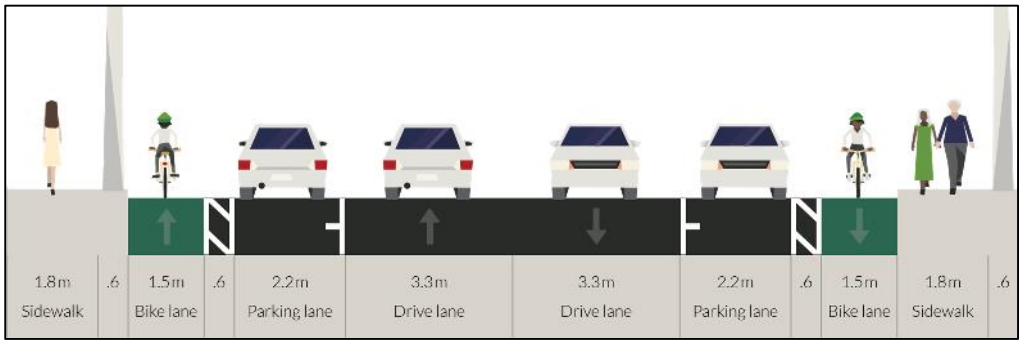
Workshop Comments/ Discussion

- Buses, bikes, pedestrians want the same space
- NZTA guidelines - separated cycleway options tool

Determination

- It was agreed this **option would not be progressed**

Option 1A: One-way cycle lanes between kerb and parking, car door buffer zone



- One-way cycle lanes (road or footpath level), each side of the street, between kerb and parking
- Remove traffic islands. Reduce footpath widths to widen carriageway
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection

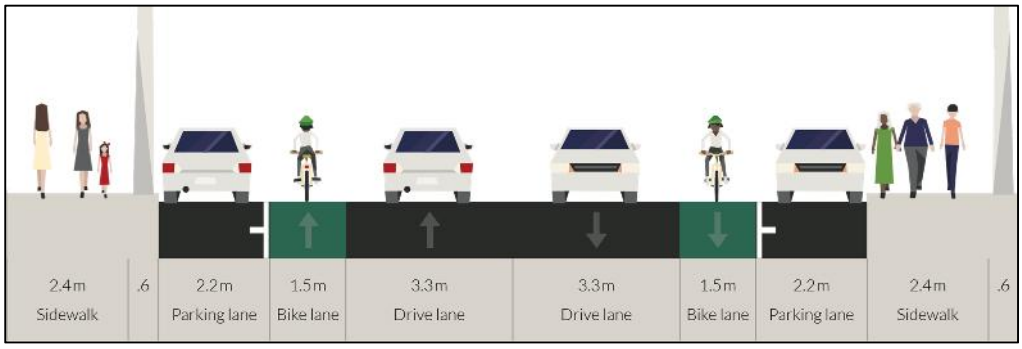
Workshop Comments/ Discussion

- What are the issues mixing buses with cyclists?
- Issues with pohutukawa trees on sides of footpaths on a number of routes
- No reduction in footpath widths
- Can we remove one lane of parking?
- Widening the street could be good for buses. Consideration of bus lanes? Or one for morning peak?

Determination

- It was **agreed to short list this option**, providing:
  a) footpath widths not reduced
  b) street trees not removed (located on western berm, south of Wexford Rd/ Chelsea St intersection)
- Particular support was given to improving intersection angles and reducing crossing distances at Wexford Rd/ Chelsea St intersection and switching prioritisation at Caledonia St/ Devonshire Rd intersection

Option 2: One-way cycle lanes between parking and traffic lane



- One-way cycle lanes (road or footpath level), each side of the street, between kerb and parking
- Remove traffic islands
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection

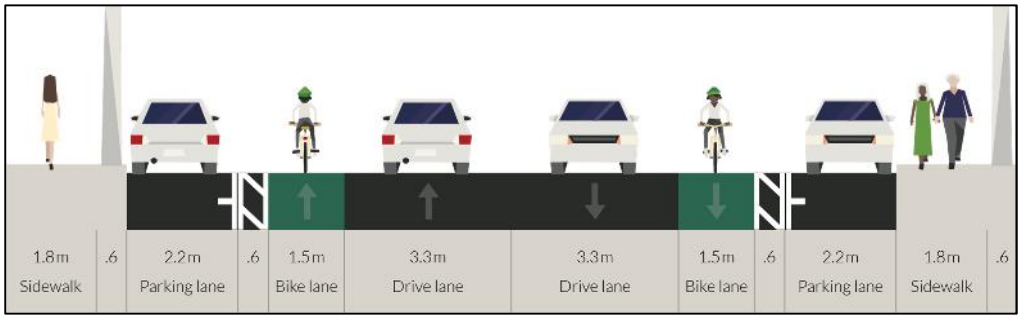
Workshop Comments/ Discussion

- Dangerous. No door zone

Determination

- It was agreed that this **option would not be progressed**

Option 2A: One-way cycle lanes between parking and traffic lane, car door buffer zone



- One-way cycle lanes (road or footpath level), each side of the street, between parking and traffic lanes. Buffer zone between parking and cycle lanes.
- Remove traffic islands. Reduce footpath widths to widen carriageway.
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection

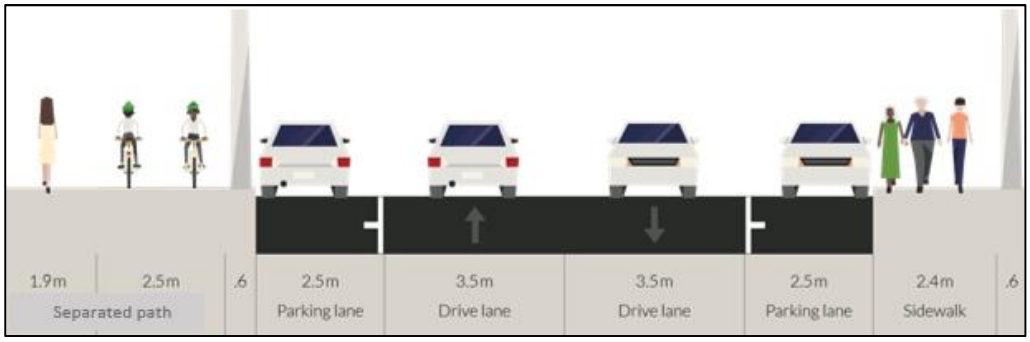
Workshop Comments/ Discussion

- No reduction in footpath widths please
- Changing priority of Caledonia St is a no brainer

Determination

- It was agreed to **short list this option**, providing:
  c) footpath widths not reduced
  d) street trees not removed (located on western berm, south of Wexford Rd/ Chelsea St intersection)
- Particular support was given to improving intersection angles and reducing crossing distances at Wexford Rd/ Chelsea St intersection and switching prioritisation at Caledonia St/ Devonshire Rd intersection

Option 3: Two-way separated path between footpath and parking



- Two-way separated path on one side of the street, between parking and traffic lanes. Alternatively, a two-way lane at road level.
- Remove traffic islands
- Improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection. Switch prioritisation at Caledonia St/ Devonshire Rd intersection

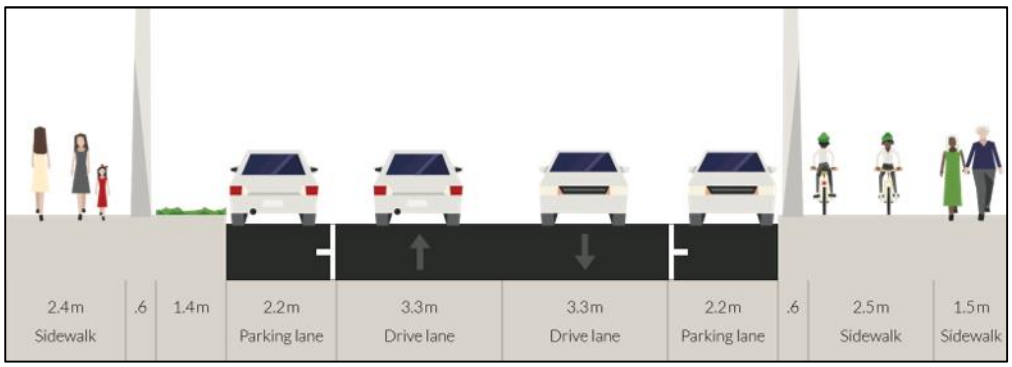
Workshop Comments/ Discussion

- Put all parking on one side of road (angle parking?)
- Good separation between cyclists and pedestrians needed
- Fits in well with the facility through the tunnel

Determination

- It was agreed this **option would not be progressed** due to tree removal required and other options involving less separation considered feasible due to lower traffic volumes

Option 3A: Two-way separated cycle paths (on Kedah and Miro Streets only)



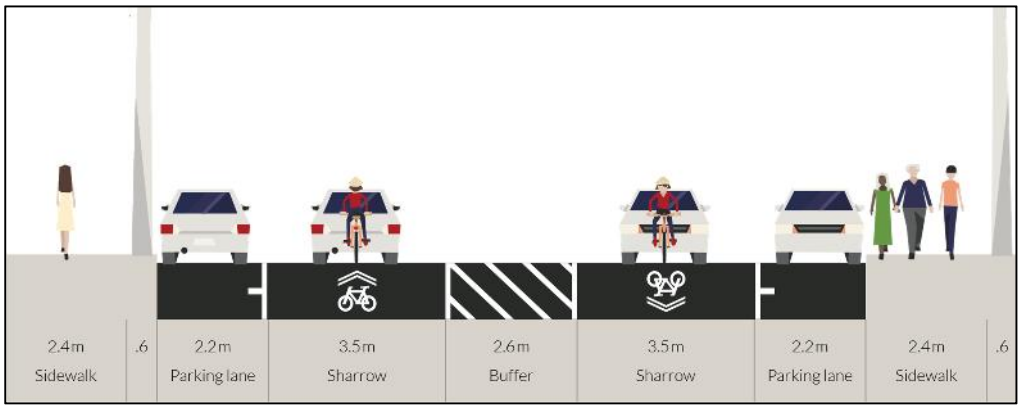
Workshop Comments/ Discussion

- Only for part of route
- Could work okay if pedestrian volumes are not too high

Determination

- It was agreed to **short list this option**, noting this is only for Miro/ Kedah St section

Option 4: Mixed traffic, 30 km/h speed, sharrows



- Mixed traffic within 30km/h zone (to Byron St intersection) and use of sharrow markings.
- Use of central median with vegetation, chichanes to improve intersection angles and reduce crossing distances at Wexford Rd/ Chelsea St intersection.
- Switch prioritisation at Caledonia St/ Devonshire Rd intersection

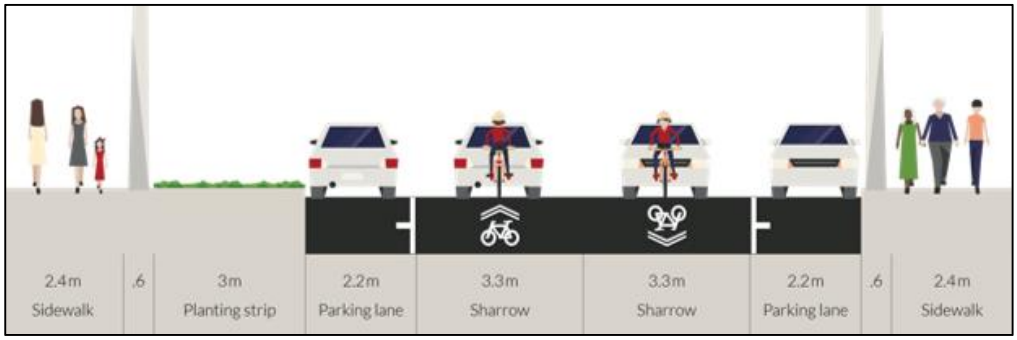
Workshop Comments/ Discussion

- Can central median be removed?
- Not supportive of chicanes

Determination

- It was agreed that this **option would not be progressed**

Option 4A: Mixed traffic, 30 km/h speed, sharrows (on Kedah and Miro Streets only)



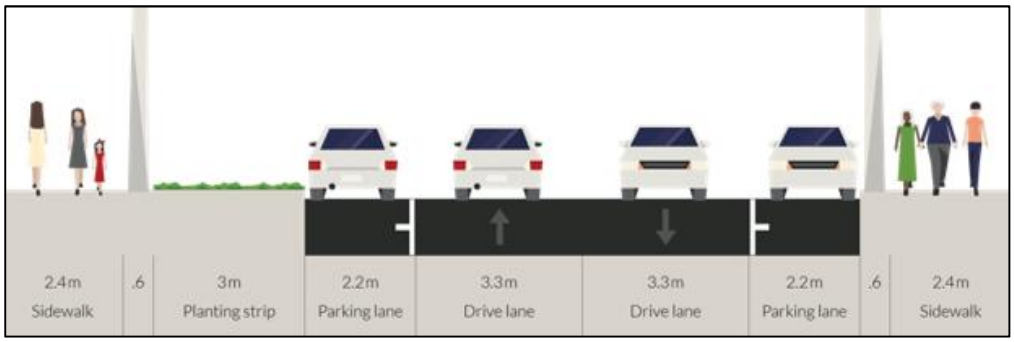
Workshop Comments/ Discussion

- Would only be high level of service if speed and volume of traffic were very low. Make it a "quiet street"
- Miro and Kedah only need traffic calming

Determination

- It was agreed to **short list this option**, noting this is only for Miro/ Kedah St section

Option 5: Reduced speed



- Hobart St cross-section unchanged
- Reduce vehicle speed with complementary signage and markings in the traffic lanes

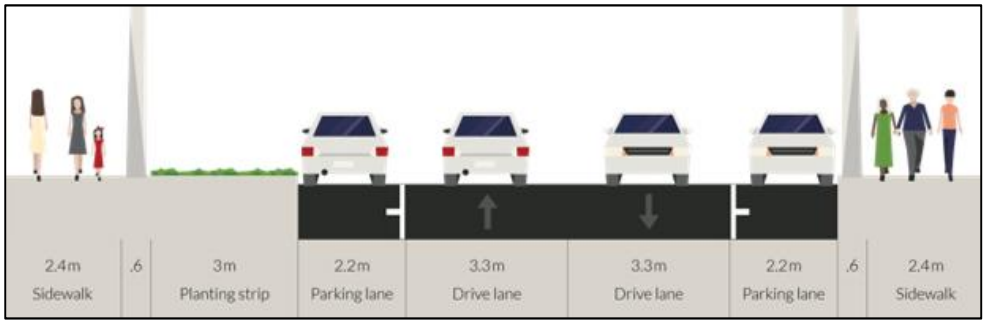
Workshop Comments/ Discussion

- None

Determination

- It was agreed that this **option would not be progressed**

Option 6: Do Nothing



Workshop Comments/ Discussion

- Is there an option to Do Nothing for now?

Determination

- It was agreed that this **option would not be progressed** unless 'Do Nothing for now' is an option

MCA Scoring

Route 3: Hobart/Miro/Kedah Street

Option	Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost	
1	++	++	++	+	++	++	o	+	-	-	-	-	
1A	++	++	++	-	++	++	o	+	-	-	-	--	← Short Listed
2	+	+	+	+	++	o	o	o	-	o	-	-	
2A	+	+	+	-	++	+	o	o	-	o	-	--	← Short Listed
3	+	++	++	o	+	-	-	o	o	o	-	--	
4	+	o	o	+	-	--	o	--	-	-	-	-	
3A	+	++	++	o	+	-	-	o	o	o	-	-	← Short Listed
4A	o	+	+	o	+	o	o	o	o	o	o	o	← Short Listed
5	o	o	o	+	o	o	o	o	-	o	o	o	
6	o	o	o	o	o	o	o	o	o	o	o	o	

Broadway (to Strathmore Shops) Long List to Short List Assessment

The short listing of the long list of treatment options for Ira Street was carried out during Workshop 4 on Wednesday 14 June and is summarised in the table, with more detail provided below.

The Working Group was asked:

- Do you agree with assessments / scoring?
- What is good about this option?
- Suggestions for improvements to options

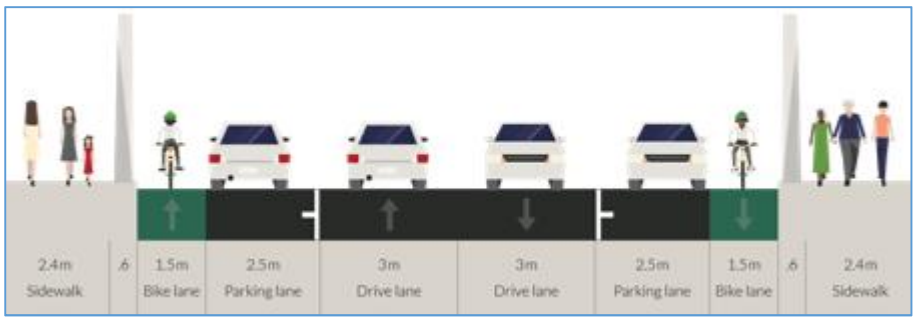
The Working Group was also asked to identify their preferred option (using a yellow sticker) and the option they do not support (using a red sticker). The numbers in the table below indicate the number of votes received for each option.

Short List of Treatment Options

No.	Description	1st	No		Short List
1	One-way cycle lanes between kerb & parking	1	2	X Not progressed	Option 1A preferred for protection for cyclists from car doors
1A	One-way cycle lanes between kerb & parking, car door buffer zone	1	3	► Carried forward	Supported if cycleway height raised above road level
2	One-way cycle lanes between parking & traffic lane		1	X Not progressed	Option 2A preferred for protection for cyclists from car doors
2A	One-way cycle lanes between parking & traffic lane, car door buffer zone	3		► Carried forward	Supported but lower speeds are needed
3	Two-way separated path between footpath & parking	4	1	► Carried forward	Good separation between pedestrians and cyclists needed
4	Mixed traffic, 30 km/h speed, sharrows		4	X Not progressed	Did not score well against MCA criteria and not supported at workshop
5	Reduced speed		2	X Not progressed	Not supported at workshop
6	Do Nothing		1	X Not progressed	Not supported, improvements needed to make this route safer

Long List to Short List Discussion

Option 1: One-way cycle lanes between kerb and parking



- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between kerb and parking
- Remove central painted median and traffic islands
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway

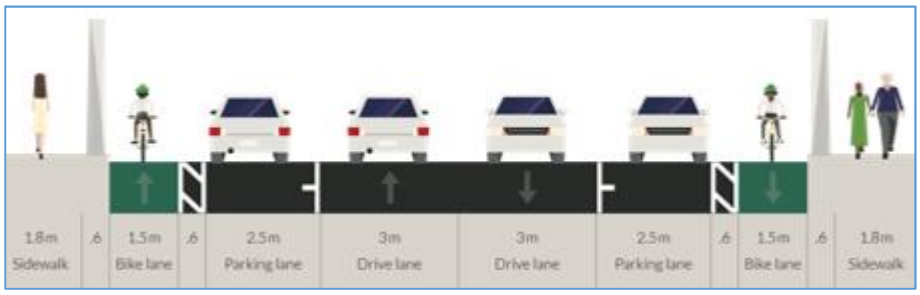
Workshop Comments/ Discussion

- Score pedestrians lower due to island removal
- Raise the level of the cycle lane?

Determination

- It was agreed this option would not be progressed

Option 1A: One-way cycle lanes between kerb and parking, car door buffer zone



- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between kerb and parking. Buffer zone provided between parking and cycle lanes
- Remove central painted median and traffic islands. Reduce footpath widths to widen carriageway
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway

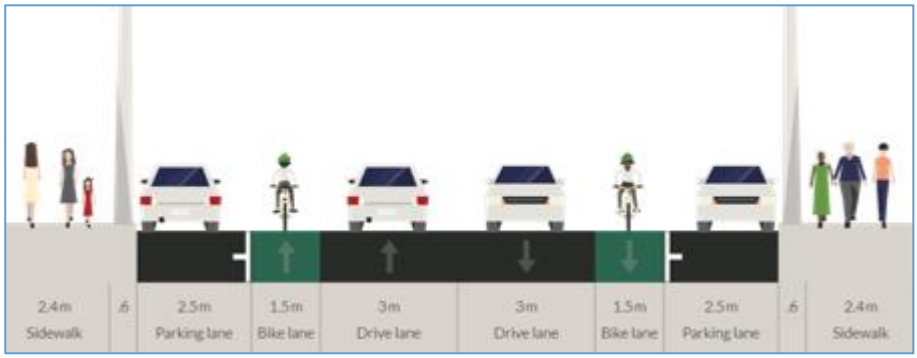
Workshop Comments/ Discussion

- Bus access? Any impacts due to Hobart Street intersection rationalisation
- Needs a kerb (physical) separation

Determination

- It was agreed to **short list this option** (based on support for this option across the other routes) providing the cycleway height is raised above the height of the road and a good connection to the Airport Subway is provdied
- Particular support was given to proposals to rationalise the Hobart Street Intersection and formalising the crossing point near the Airport roundabout and to improve access to the Airport Subway
- It was noted that if the median is removed, consideration needs to be given to providing pedestrian crossing facilities and providing space for turning movements at intersections (possibly via small numbers of parking spaces being removed at these locations)

Option 2: One-way cycle lanes between parking and traffic lane



- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between parking and traffic lanes.
- Remove central painted median and traffic islands
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway

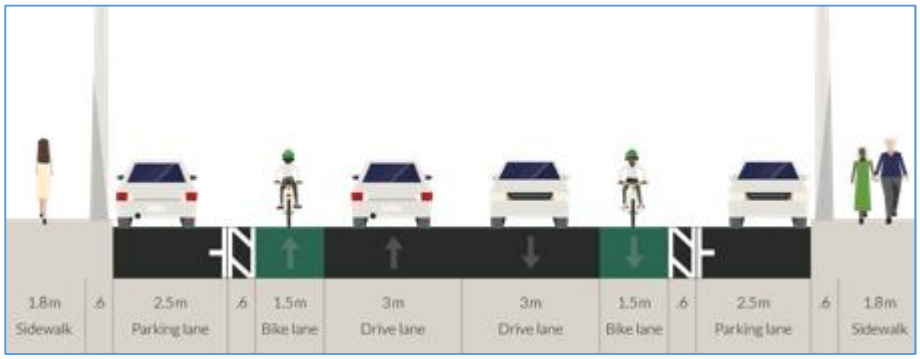
Workshop Comments/ Discussion

- Too much conflict with parked cars

Determination

- It was agreed that this **option would not be progressed**

Option 2A: One-way cycle lanes between parking and traffic lane, car door buffer zone



- One-way cycle lanes at road level (alternatively at footpath level), each side of the street, between parking and traffic lanes. Buffer zone provided between parking and cycle lanes
- Remove central painted median and traffic islands. Reduce footpath widths to widen carriageway
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway

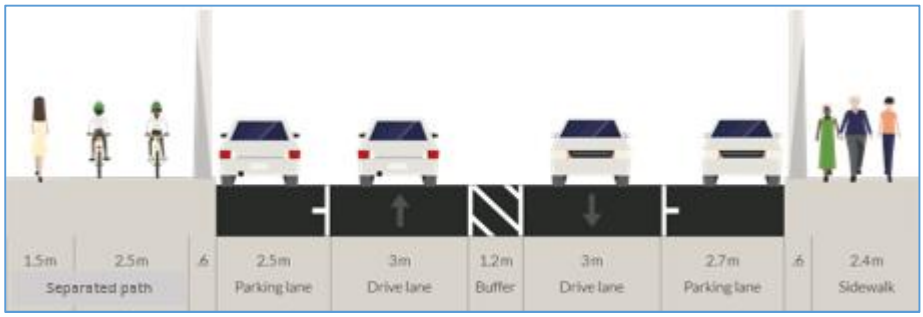
Workshop Comments/ Discussion

- Keep footpath as is, shared path
- Suggestion for alterations to widths (to give more space to traffic lanes, less for parking):
  - Footpath 3m
  - Parking lanes 2 – 2.3m
  - Cycle lane 1.5m (plus 0.5-0.6m buffer)
  - Traffic lanes 3.2 – 3.3m
- Move buffer to other side of cycle lanes
- Use of kerb to minimise vehicle conflict instead; but risk of kerb catching wheel if bike crosses
- Dangerous to have parking cars crossing protected cycle lane

Determination

- It was agreed **to short list this option**, noting that physical separation is needed
- Particular support was given to proposals to rationalise the Hobart Street Intersection and formalising the crossing point near the Airport roundabout and to improve access to the Airport Subway
- It was noted that if the median is removed, consideration needs to be given to providing pedestrian crossing facilities and providing space for turning movements at intersections (possibly via small numbers of parking spaces being removed at these locations)

Option 3: Two-way separated path between footpath and parking



- Two-way separated path on one side of the street. Alternatively, a two-way lane at road level
- Reduce central painted median width and remove traffic islands
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway

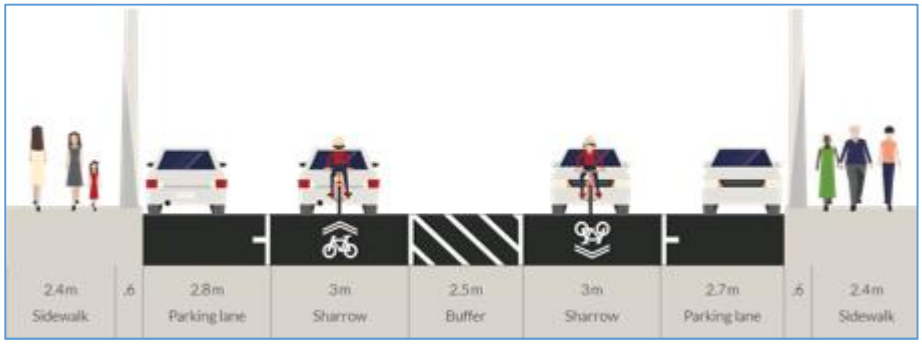
Workshop Comments/Discussion

- Where pedestrian numbers are less than 50 per hour, this could work ok if fast riders remain on the roadway
- Need good separation between pedestrians and cyclists
- Shared path must be wider
- Path should be on northern side to link to airport tunnel to Seatoun tunnel
- Miramar side great for access to airport tunnel
- two-way cycleway should be at a different level
- North side preferred
- Need consistency either side of the tunnel

Determination

- It was agreed to **short list this option**
- Particular support was given to proposals to rationalise the Hobart Street Intersection and formalising the crossing point near the Airport roundabout and to improve access to the Airport Subway

Option 4: Mixed traffic, 30 km/h speed, Sharrows



- Mixed traffic between the Ira Street roundabout and Seatoun tunnel. 30 km/h zone and use of sharrow markings. Use of central median vegetation, horizontal deflections – chicanes, speed cushions etc, to actively reduce speeds.
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway.

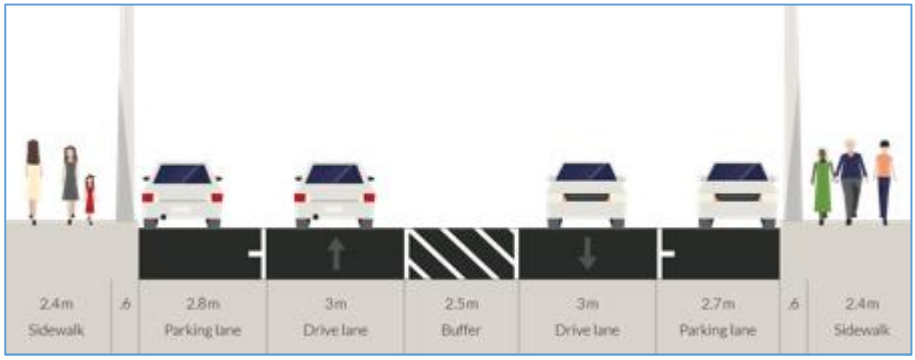
Workshop Comments/ Discussion

- Not a high level of service for cyclists

Determination

- It was agreed that this **option would not be progressed**

Option 5: Reduced speed



- Reduce speeds on Broadway. Use of complementary signage and road markings to support speed reduction
- Intersection rationalisation at Hobart Street. Formalised crossing point near Airport roundabout. Improved access to Airport Subway

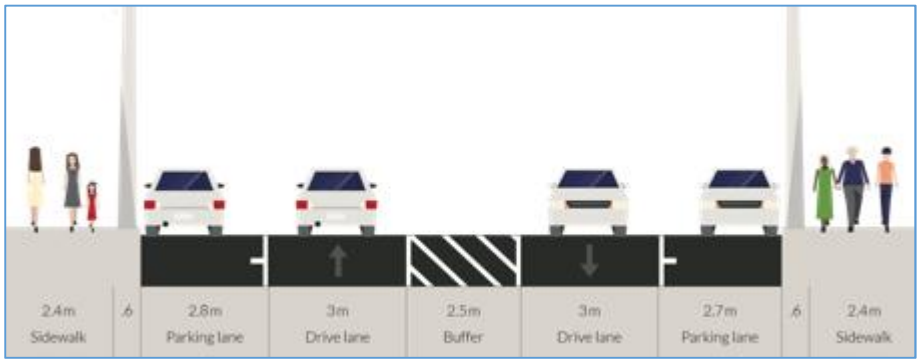
Workshop Comments/ Discussion

- None

Determination

- It was agreed that this **option would not be progressed**

Option 6: Do Nothing



Workshop Comments/ Discussion

- None

Determination

- It was agreed that this **option would not be progressed**, improvements are needed to make this route safer

MCA Scoring

Route 4: Broadway

Option	Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost	
1	++	++	++	+	++	++	o	o	-	-	-	-	
1A	++	++	++	-	++	++	o	o	-	-	-	-	← Short Listed
2	+	+	+	+	++	o	o	-	-	o	-	-	
2A	+	+	+	-	++	+	o	-	-	o	-	--	← Short Listed
3	+	++	++	o	+	-	-	o	o	o	-	--	← Short Listed
4	+	o	o	+	-	--	o	--	-	-	-	-	
5	o	o	o	+	o	o	o	-	-	o	o	o	
6	o	o	o	o	o	o	o	o	o	o	o	o	

Ferry/ Dundas Street (from Strathmore Shops) Long List to Short List Assessment

The short listing of the long list of treatment options for Ira Street was carried out during Workshop 4 on Wednesday 14 June and is summarised in the table, with more detail provided below.

The Working Group was asked:

- Do you agree with assessments / scoring?
- What is good about this option?
- Suggestions for improvements to options

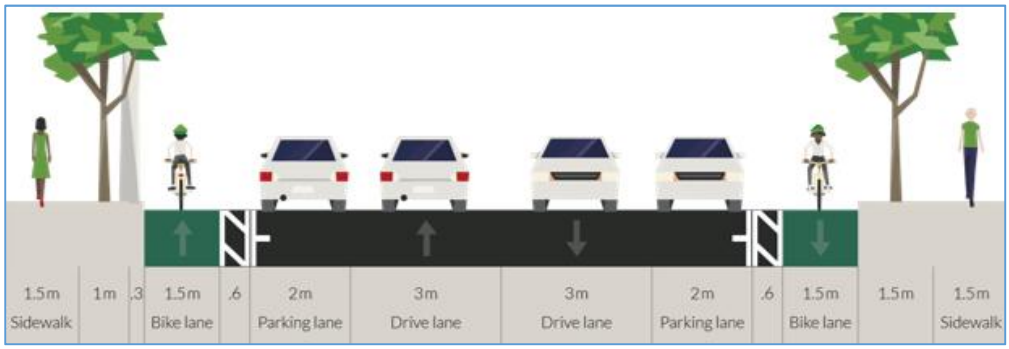
The Working Group was also asked to identify their preferred option (using a yellow sticker) and the option they do not support (using a red sticker). The numbers in the table below indicate the number of votes received for each option.

Short List of Treatment Options

No.	Description	1st	No		Short List
1A	One-way cycle lanes between kerb & parking, car door buffer zone	2	1	► Carried forward	Supported if cycleway height raised above road level
2A	One-way cycle lanes between parking & traffic lane, car door buffer zone	0	1	X Not progressed	Not supported at workshop, not enough space for all road users
3	Two-way separated path between footpath & parking	1	4	X Not progressed	Did not score well against MCA criteria and not supported at workshop
4	Mixed traffic, 30 km/h speed, sharrows	4	0	► Carried forward	Supported if cycleway height raised above road level
6	Do Nothing	0	0	X Not progressed	Not supported, improvements needed to make this route safer

Long List to Short List Discussion

Option 1A: One-way cycle lanes between kerb and parking, car door buffer zone



- One-way cycle lanes (road or footpath level), each side of the street, between kerb and parking

- Remove traffic islands and central painted median
- Remove left-turn slip lane and minimise kerb radii at Inglis Street. Reduce crossing distance at Ventnor Street. New pedestrian crossing point near Seatoun tunnel. Improve lighting and signage at tunnel

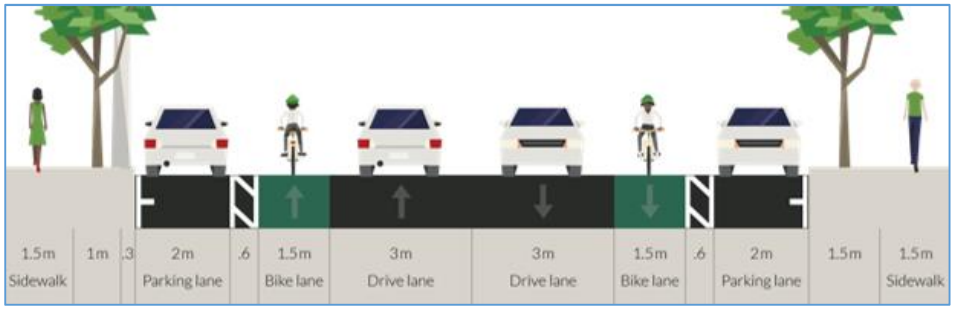
Workshop Comments/ Discussion

- This would be good in the uphill direction, but not necessary when going downhill at 30-40 km/h

Determination

- It was agreed to **short list this option** providing the cycleway height is raised above the height of the road
- Particular support was given to removing left-turn slip lane and minimising kerb radii at Inglis Street, reducing the crossing distance at Ventnor Street, a new pedestrian crossing point near Seatoun Tunnel and improving lighting and signage at the tunnel
- It was noted that if the median is removed, consideration needs to be given to providing pedestrian crossing facilities and providing space for turning movements at intersections (possibly via small numbers of parking spaces being removed at these locations)

Option 2A: One-way cycle lanes between parking and traffic lane, car door buffer zone



- One-way cycle lanes at road level, each side of the street, between parking and traffic lanes. Buffer zone between parking and cycle lanes Remove traffic islands
- Remove traffic islands and central painted median
- Remove left-turn slip lane and minimise kerb radii at Inglis Street. Reduce crossing distance at Ventnor Street. New pedestrian crossing point near Seatoun tunnel. Improve lighting and signage at tunnel

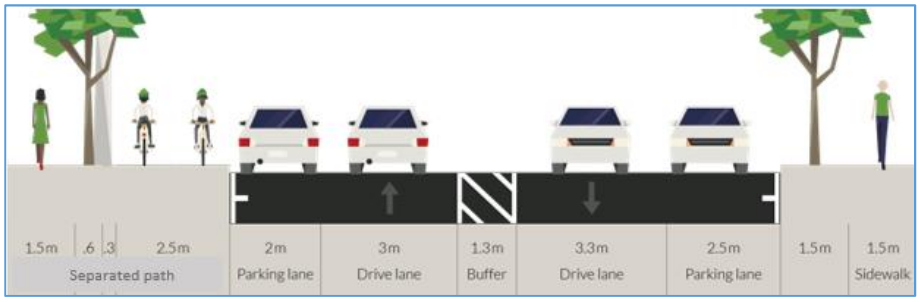
Workshop Comments/Discussion

- All a bit too tight
- Door zone!

Determination

- It was agreed that this **option would not be progressed**

Option 3: Two-way separated path between footpath and parking



- Two-way separated path on one side of the street. Alternatively, a two-way lane at road level.
- Remove traffic islands and reduce central painted median width
- Remove left-turn slip lane and minimise kerb radii at Inglis Street. Reduce crossing distance at Ventnor Street. New pedestrian crossing point near Seatoun tunnel. Improve lighting and signage at tunnel

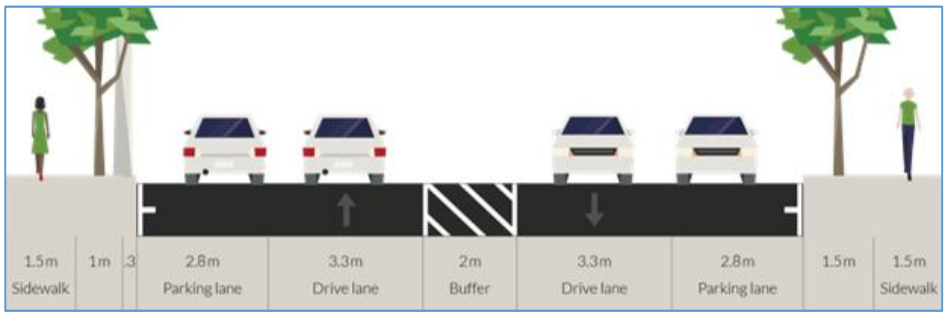
Workshop Comments/Discussion

- Two-way path is too narrow on a hill (i.e. gradient over 3%)
- This uphill (Strathmore to Tunnel) sharrows down tunnel
- Check trees

Determination

- It was agreed that this **option would not be progressed**

Option 4: Mixed traffic, 30 km/h speed, Sharrows



- Mixed traffic between the Seatoun tunnel and Inglis Street. Extend 30kph zone; use of central median vegetation, horizontal deflections, chicanes, speed cushions etc to actively reduce speeds
- Remove left-turn slip lane and minimise kerb radii at Inglis Street. Reduce crossing distance at Ventnor Street. New pedestrian crossing point near Seatoun tunnel. Improve lighting and signage at tunnel

Workshop Comments/ Discussion

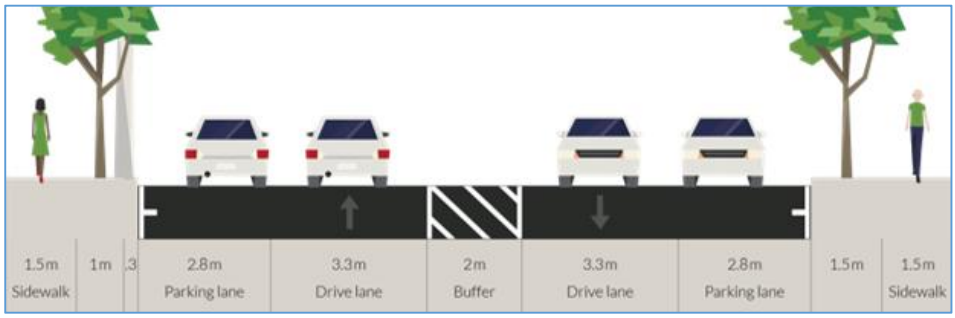
- Add a cycle lane on uphill
- Add sharrow road markings

- This could work fine in downhill direction, but speed differential would still be too high for cycling to be comfortable going uphill
- Perhaps a combination of option 1 or 2 (uphill) with option 4 with sharrows downhill

Determination

- It was agreed to **short list this option** considering different options on the downhill vs uphill
- Particular support was given to removing left-turn slip lane and minimising kerb radii at Inglis Street, reducing the crossing distance at Ventnor Street, a new pedestrian crossing point near Seatoun Tunnel and improving lighting and signage at the tunnel

Option 6: Do Nothing



Workshop Comments/ Discussion

- None

Determination

- It was agreed that this **option would not be progressed**

MCA Scoring

Route 5: Ferry/Dundas Street

Option	Achieve a high level of service for cyclists within an integrated transport network	Cycling is a viable and attractive transport choice	Improve the safety of road users, prioritising those most vulnerable	Improve the sustainability, liveability and attractiveness of Miramar	Improve connections for pedestrians and cyclists	Reduce the opportunity for conflicts between all road users	Pedestrians Effects	Bus Users Effects	Motorised Traffic Effects	Parking Effects	Environmental Effects	Total Cost	
1A	++	++	++	+	++	++	o	o	-	-	-	-	← Short Listed
2A	+	+	+	+	++	+	o	-	-	o	-	-	
3	+	++	+	o	+	-	-	o	o	o	-	--	
4	+	o	o	+	-	--	o	--	-	-	-	o	← Short Listed
6	o	o	o	o	o	o	o	o	o	o	o	o	

Appendix E – Drawings of Short Listed Options

PARK ROAD

MIRAMAR AVENUE TO MIRAMAR NORTH ROAD

GHD 51-34415-R1

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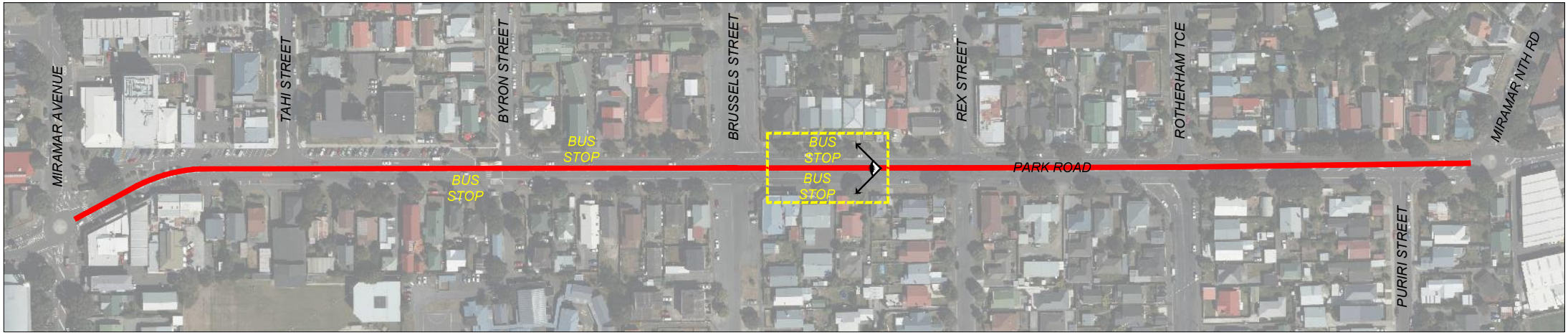
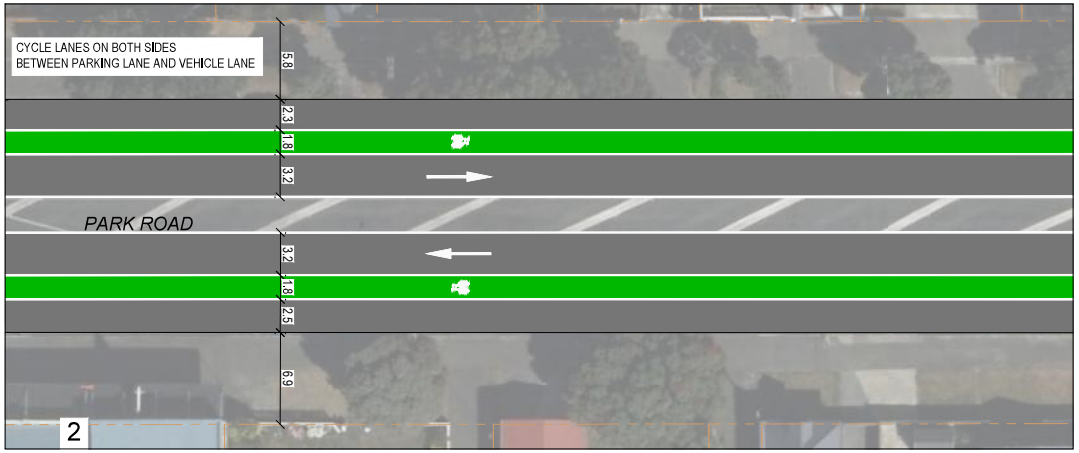
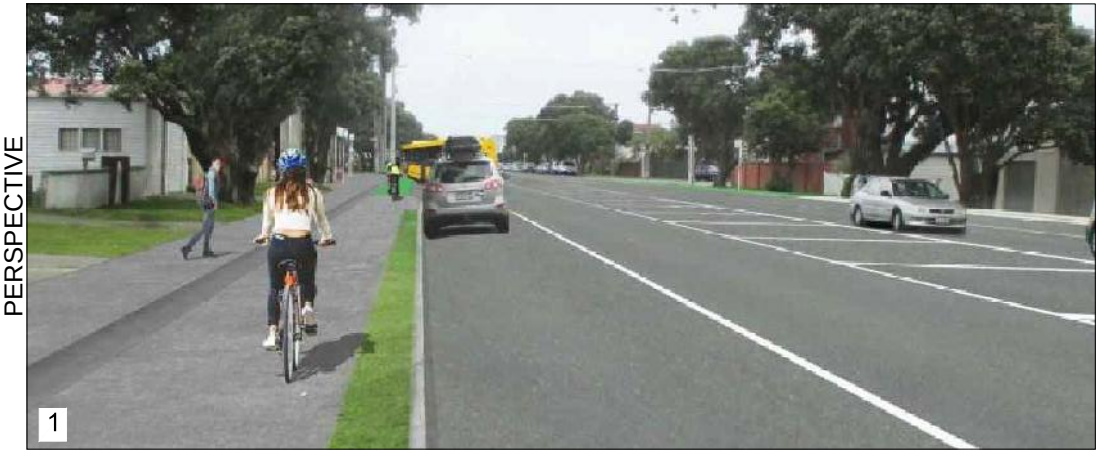
EXISTING ROAD LAYOUT



OPTION



PERSPECTIVE



IRA STREET

BROADWAY TO PARK ROAD

GHD

51-34415-R3

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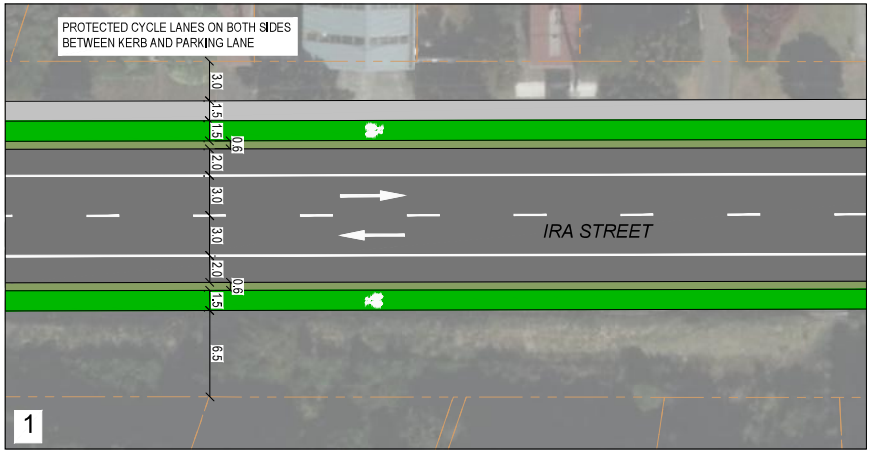
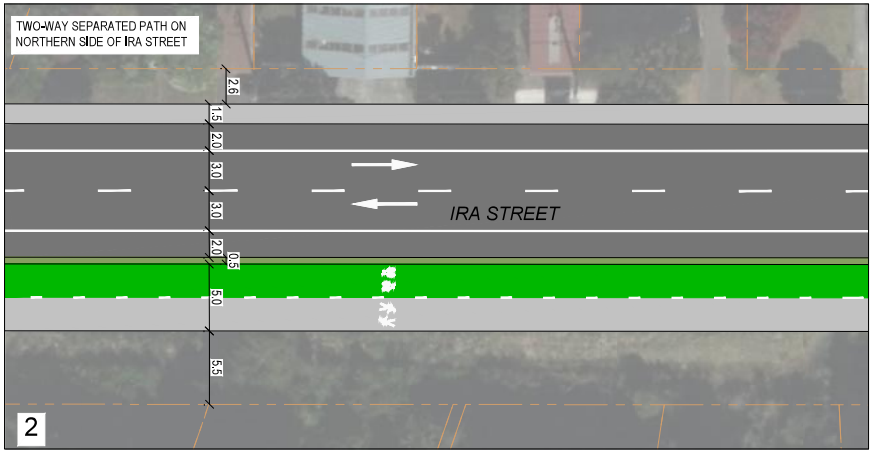
EXISTING ROAD LAYOUT

OPTION





PERSPECTIVE

HOBART STREET

AIRPORT SUBWAY TO MIRAMAR AVENUE

51-34415-R2

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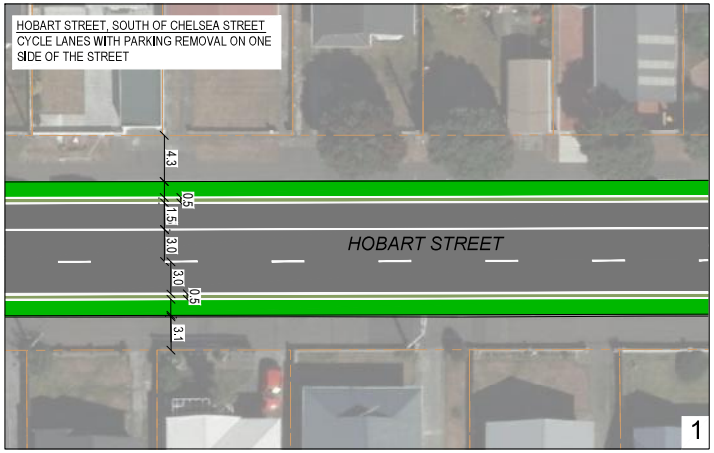
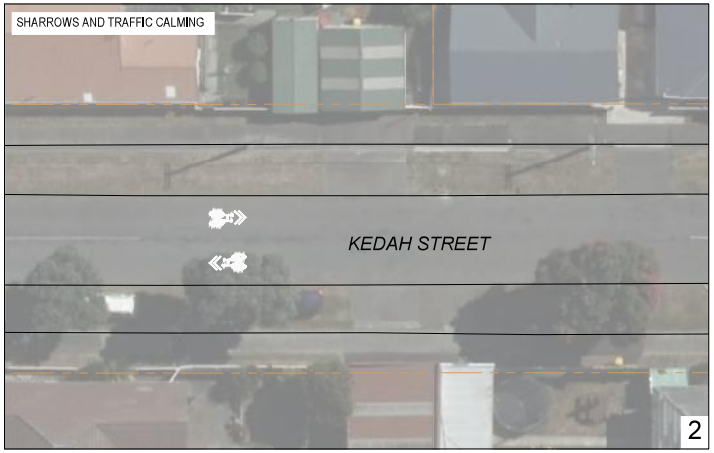
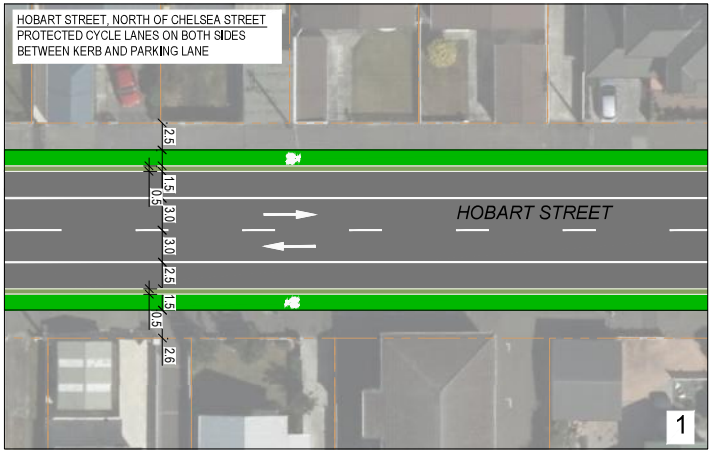
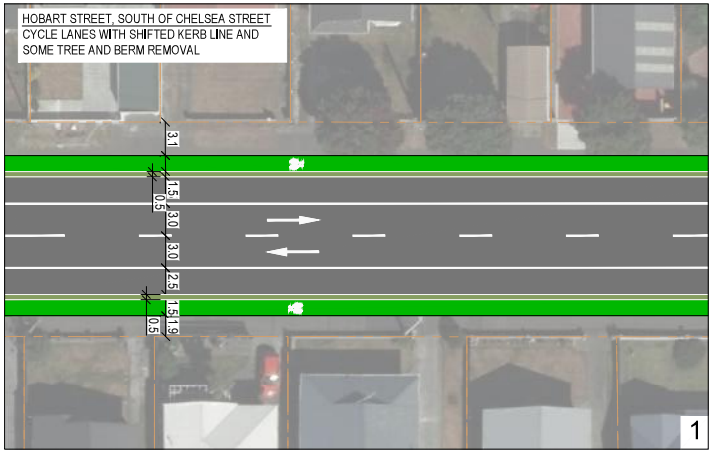
EXISTING ROAD LAYOUT

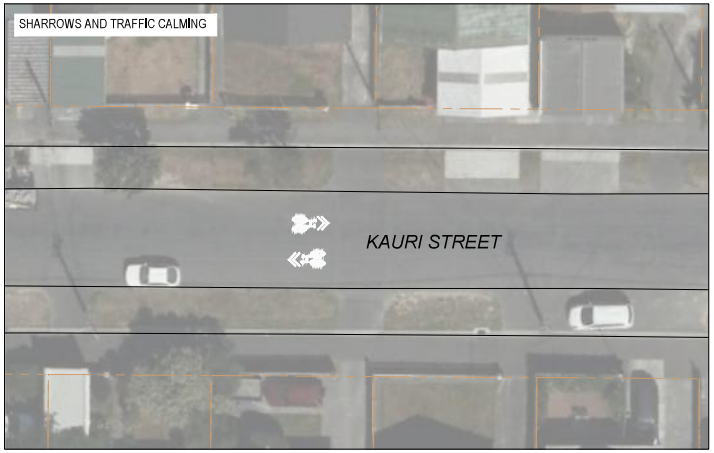
OPTION

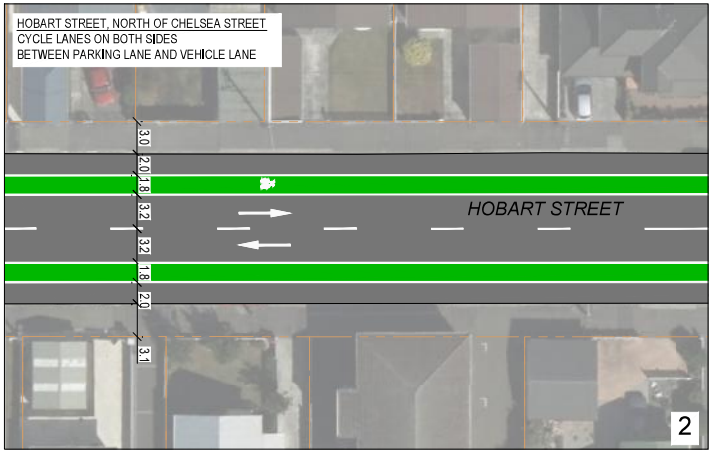












BROADWAY

MIRO STREET TO IRA STREET

GHD 51-34415-R4

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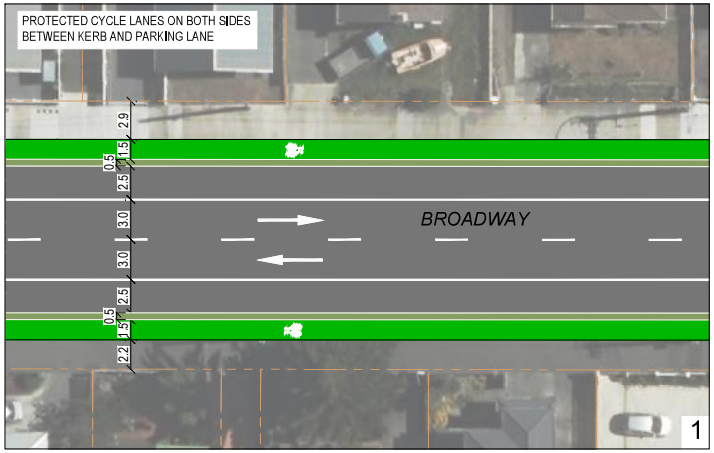
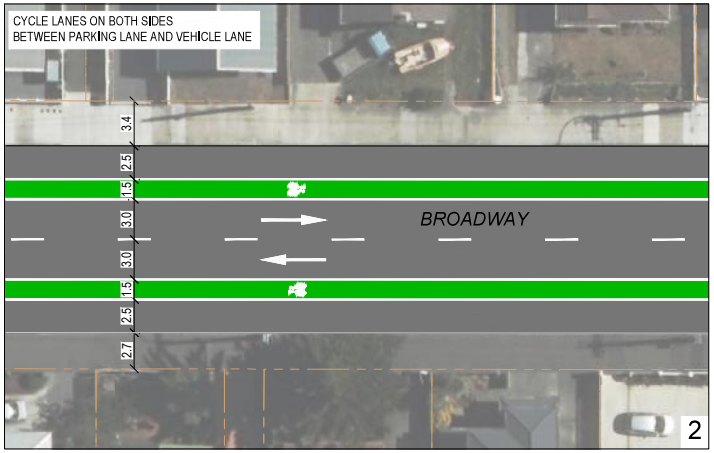
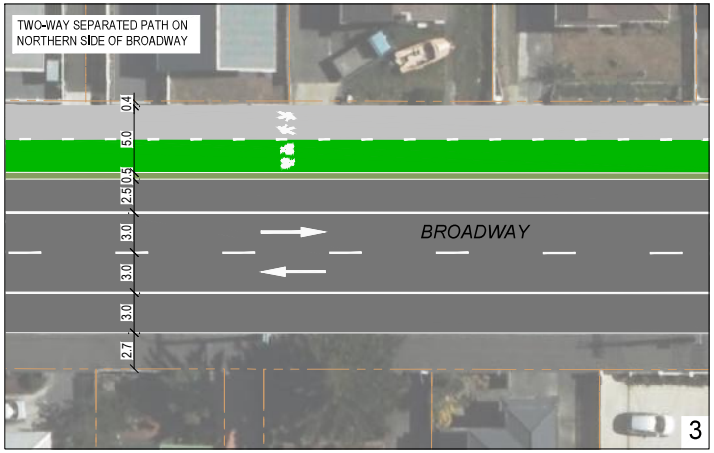
EXISTING ROAD LAYOUT

OPTION







PERSPECTIVE

BROADWAY, FERRY STREET, AND DUNDAS STREET

GHD 51-34415-R5

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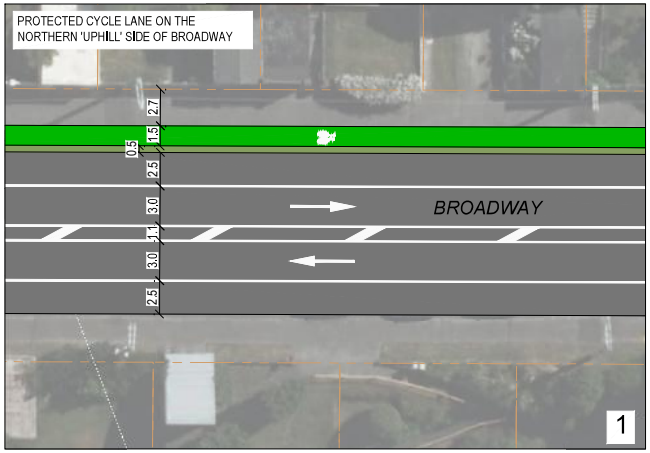
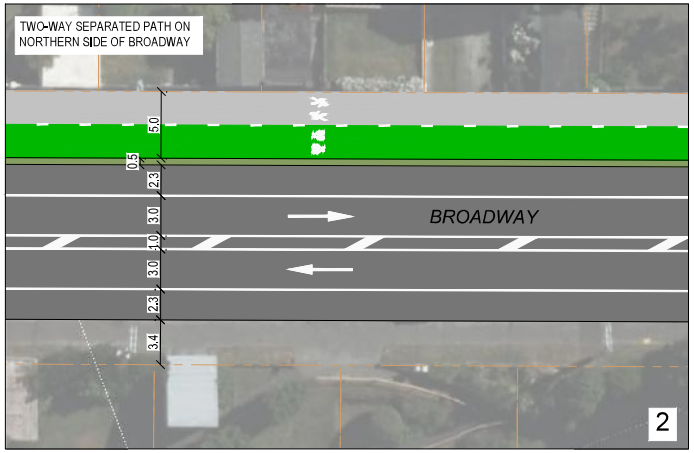
IRA STREET TO SEATOUN TUNNEL

SEATOUN TUNNEL TO INGLIS STREET

EXISTING ROAD LAYOUT

OPTION





PERSPECTIVE