

Urban Cycleways Programme

Bays Connections

Oriental Parade (Herd St to Freyberg Pool)

Issues Paper

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Document history and status

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Important note about this report

The purpose of this report is to provide an outline of the adequacy of provisions for people walking, biking, driving, parking and using buses along the section of Oriental Parade between Herd Street and Freyberg Pool & Fitness Centre.

Some existing information from Wellington City Council (WCC) has been used and presumed accurate in preparing the report, such as vehicle count data, vehicle speed data, proposed bus network changes and geometric changes, current WCC policies and plans, and Danish Method assessment and outcomes. Other data has been sourced from freely available online information and aerial images have been sourced from Google Earth Pro (and attributed where shown).

If there are changes to the WCC policy, plans or objectives or infrastructure changes within the study area changes for the intended cycleway, this issue report may need to be re-evaluated.

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This report is to be read in full with no excerpts taken to be representative of the findings.

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Did you know?

Oriental Parade is part of the **Great Harbour Way**.

A walking and cycling route around Wellington Harbour, from Pencarrow to Red Rocks.

Clyde Quay Boat Sheds date back from **1905**.

Most of the **11 pohutukawa** were planted around **1948**.

There are **76 car parks** including **58 angle parks** along this section of Oriental Parade.

Peak hour cycle volume along Oriental Parade is **more than 200**.

More than half of the people on bikes use the shared path.

More than 300 pedestrians on the shared path along Oriental Parade in peak hours.

17,500 - Average daily traffic volume at this section of Oriental Parade.

46 recorded crashes between 2006 and 2015.

19 were injury crashes, including **3 serious and 16 minor** injuries.

12 crashes (63% of all injury crashes) involved people on bikes. This is an **unusually high** proportion of all injury crashes.

1. Introduction

1.1 Background

Over recent years Wellington City Council (WCC) has committed a significant amount of capital funding to cycleway development through its Long Term Plan and Annual Plan processes. The investment aims to contribute towards cycling becoming “*safer and more convenient*” (WCC Cycling Policy, November 2008) by increasing the level of service for people who use bikes.

The Urban Cycleways Programme (UCP) has provisionally allocated \$9.5 million to Wellington City for investment. When contributions from rates and the National Land Transport Fund are taken into account, some \$37.5 million will be invested in cycling over the next three years (by 30 June 2019). The Bay Connections (Evans Bay to Waitangi Park & Cobham Drive) project has been allocated \$11 million and a small part will be available for improvements to Oriental Parade between Herd Street and Freyberg Pool.

The Council is currently working through the NZ Transport Agency’s business case approach to develop and assess options. To date the strategic case and programme business case stages have been completed. This issues paper relates to work required to complete the indicative business case (IBC) for the Evans Bay Parade/Oriental Parade to Waitangi Park corridor. Following completion of this indicative business case stage, a detailed business case will be developed.

1.2 Purpose of this report

This report provides background information which will be used to define problems and develop and assess improvement options for this section of the network.

The paper outlines the current level of service for people on bikes and the adequacy and safety of provisions for people walking, biking, driving, parking and using buses in the study area. This involves the collection and presentation of usage and crash statistics.

1.3 Study Area

The study area is limited to Oriental Parade from its intersection with Herd Street to the Freyberg Beach carpark access; see Figure 1.1 below. The characteristics of the corridor are detailed in the following sections.



Figure 1.1: Study Area ¹

1.3.1 Project Objectives

The primary objective for the project is to improve the current undersized shared pathway from Herd Street to Freyberg Pool to address the poor level of service for people who walk and travel by bike. This project also seeks to bring benefits for all other road users.

The proposals will be developed in conjunction with community working groups which will be set up and administered by the Council.

The WCC has identified the following key matters to be addressed by the wider study:

- Improve the level of service for people on bikes along identified routes likely via a sensible and pragmatic approach;
- Improve or maintain the level of service for people using buses along identified routes;
- Maintain or improve the level of service for pedestrians;
- Maintain an acceptable level of service for general traffic movements;
- Minimise impacts to on-street parking and increase parking supply if feasible.

Officers will recommend scheme/s and implementation plan/s for consideration by Councillors.

¹ Aerial imagery was retrieved from Google Earth Pro, Google 2016. Imagery of the site is dated 2 March 2009. Reproduced on basis of full attribution.

2. WCC Plans and Policies

2.1 Cycleways Programme Masterplan

The Cycleways Programme Masterplan² outlines the Council's aims for developing cycleways in Wellington and their expected benefits. It provides data on the current level of support for cycling, and describes the perceived and actual levels of lower safety relative to other modes. It indicates cycling demand by type of cyclist and identifies that 76% of people in Wellington City would consider cycling given safe and separated infrastructure, and 75% support the development of cycleways including non-cyclists.

Figure 2.1 has been extracted from the Masterplan and describes the number of people who bike to work from the central and eastern suburbs of Wellington.

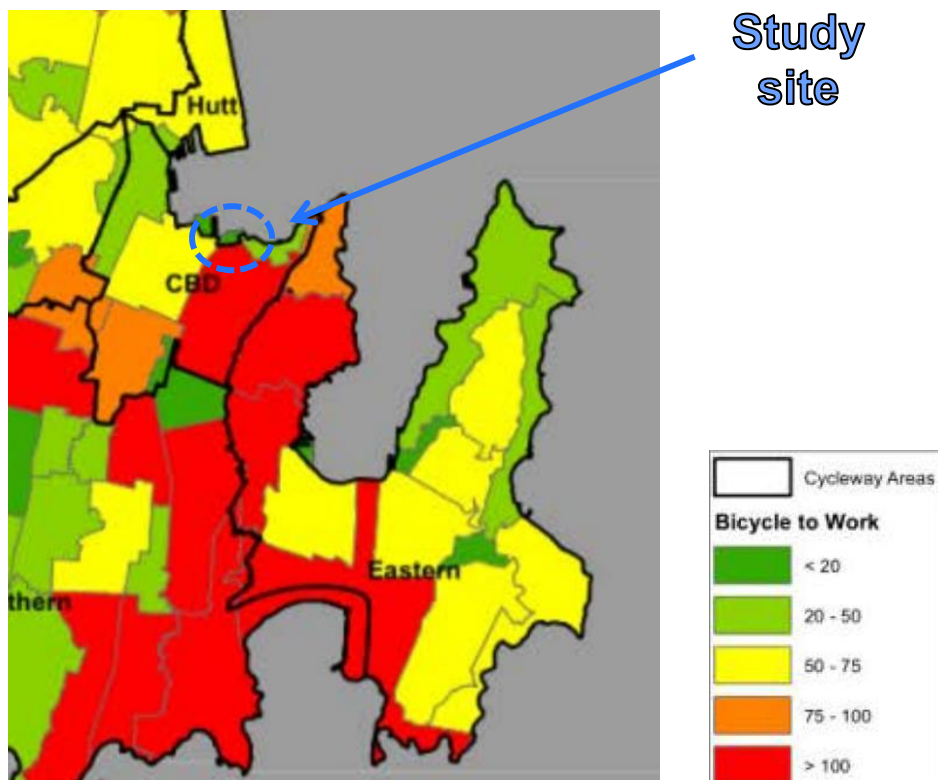


Figure 2.1: Where those who bike to work live

The areas near the study site, namely Mt Victoria, Roseneath and Hataitai, all generate a relatively high number of cycle commuters (Census 2013). In comparison, there are fewer people travelling to work from the eastern suburbs. Each area in the east typically only has 50-75 people cycling to the work place with the exception of Lyall Bay and Strathmore Park both having more than 100. This could be due to the poor cycle connections along State Highway 1 (Cobham Drive and Wellington Road), the exposed weather conditions along the waterfront, low level of service through Mt Victoria tunnel and the hilly terrain through Newtown. Travel distance is unlikely to be a significant contributing factor as the average distance between eastern suburbs and the CBD is around 6km. The figure suggests further improvements in cycle facilities including at Oriental Parade, have the potential to result in a higher uptake from the eastern area.

² Wellington City Council, Wellington Cycleways Programme Masterplan, September 2015. Retrieved online in November 2016. <http://wellington.govt.nz/~media/services/parking-and-roads/cycling/files/cycleways-master-plan-103052.pdf>

2.2 WCC Cycling Framework 2015

The WCC Cycling Framework 2015 outlines the proposed citywide cycleway network and describes the types of cycleways (quiet routes, shared zones, protected lanes, alternative paths). It also addresses some principles and frameworks, including network design principles and space allocation principles.

The study site at Oriental Parade forms part of the Great Harbour Way route within the Wellington Cycle Network. Although no specific treatment has been identified for this route, “shared vehicle/bike zones” and “protected bike lane” are the two feasible types of treatment at this site.

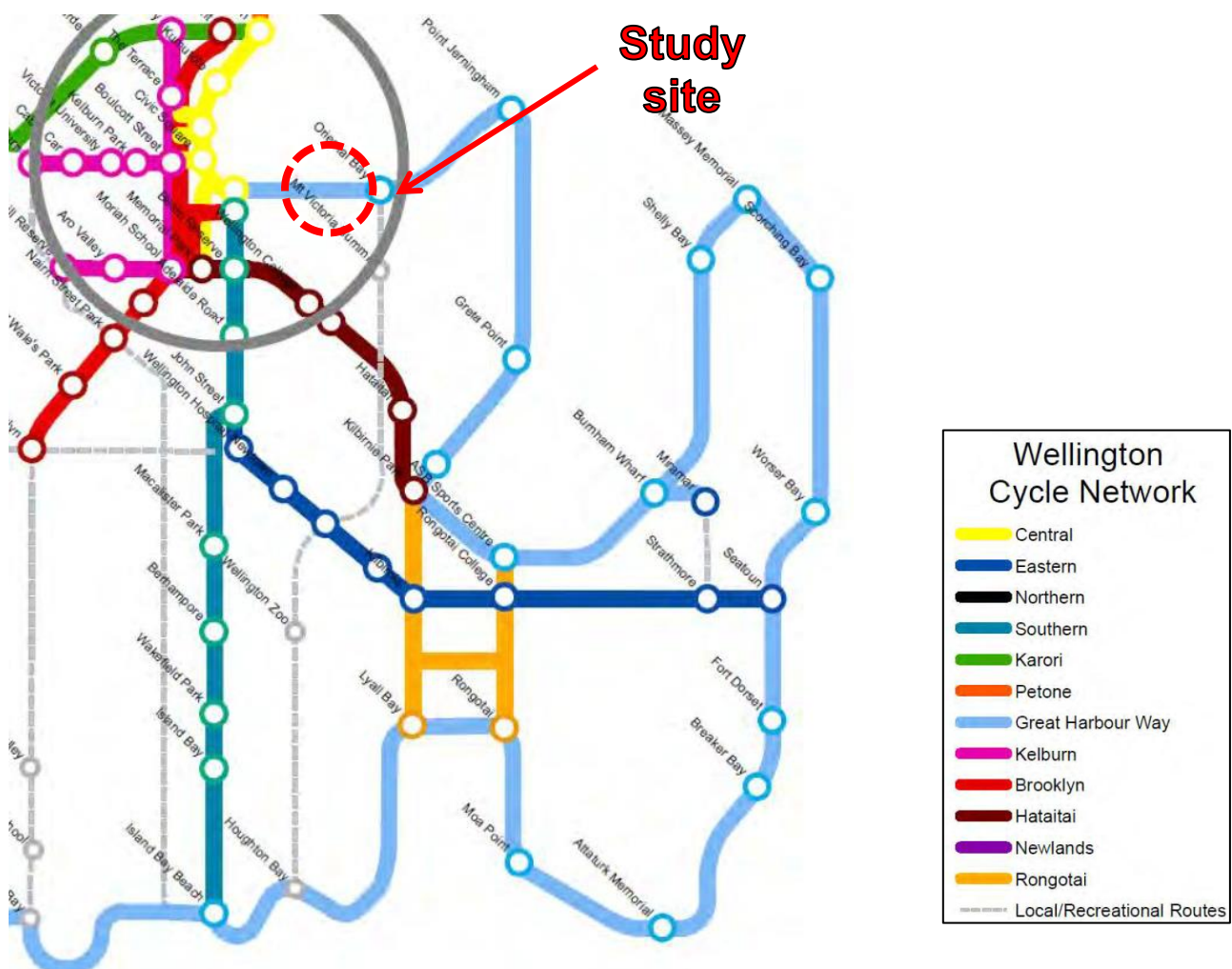


Figure 2.2: Wellington Cycleway Network Plan and the study site

2.3 Urban Growth Plan

The WCC Urban Growth Plan 2014-2043 (UGP) identifies that Oriental Parade, as part of the Great Harbour Way, contributes positively to the natural environment as it provides good access to the natural assets along the coastline of the city. Upgrading the Great Harbour Way has been recommended at part of the Plan to enhance Wellington's natural environment.



Figure 2.3: Wellington Urban Growth Plan – Natural Environment ³

The UGP Action Plan also includes some key transport improvements and walking and cycling have been ranked as the top and second priorities. The Plan recommends that the Great Harbour Way should be delivered jointly by the road controlling authorities in the region. It will not only make walking and cycling safer and more accessible to the public, but will also unlock great potential for cycle tourism in Wellington as recreational cycling contributes significantly to the quality of life.

2.4 Wellington City District Plan

Within the road hierarchy for Wellington City which is defined in the District Plan, Oriental Parade is classified as a Principal road and Herd Street a local road.



Figure 2.4: District Plan Road Hierarchy Map⁴

³ WCC, Urban Growth Plan, Action Plan. Retrieved online November 2016. <http://wellington.govt.nz/~media/your-council/plans-policies-and-bylaws/plans-and-policies/a-to-z/wgtn-urban-growth/wgtn-urban-growth-plan2015-3.pdf?la=en>

⁴ WCC, District Plan Volume 3, Map 33, Road Hierarchy Map. Retrieved online November 2016. <http://wellington.govt.nz/~media/your-council/plans-policies-and-bylaws/district-plan/volume03/files/v3map12.pdf?la=en>

The District Plan identifies land zoning within the study area, as shown in Figure 2.5.

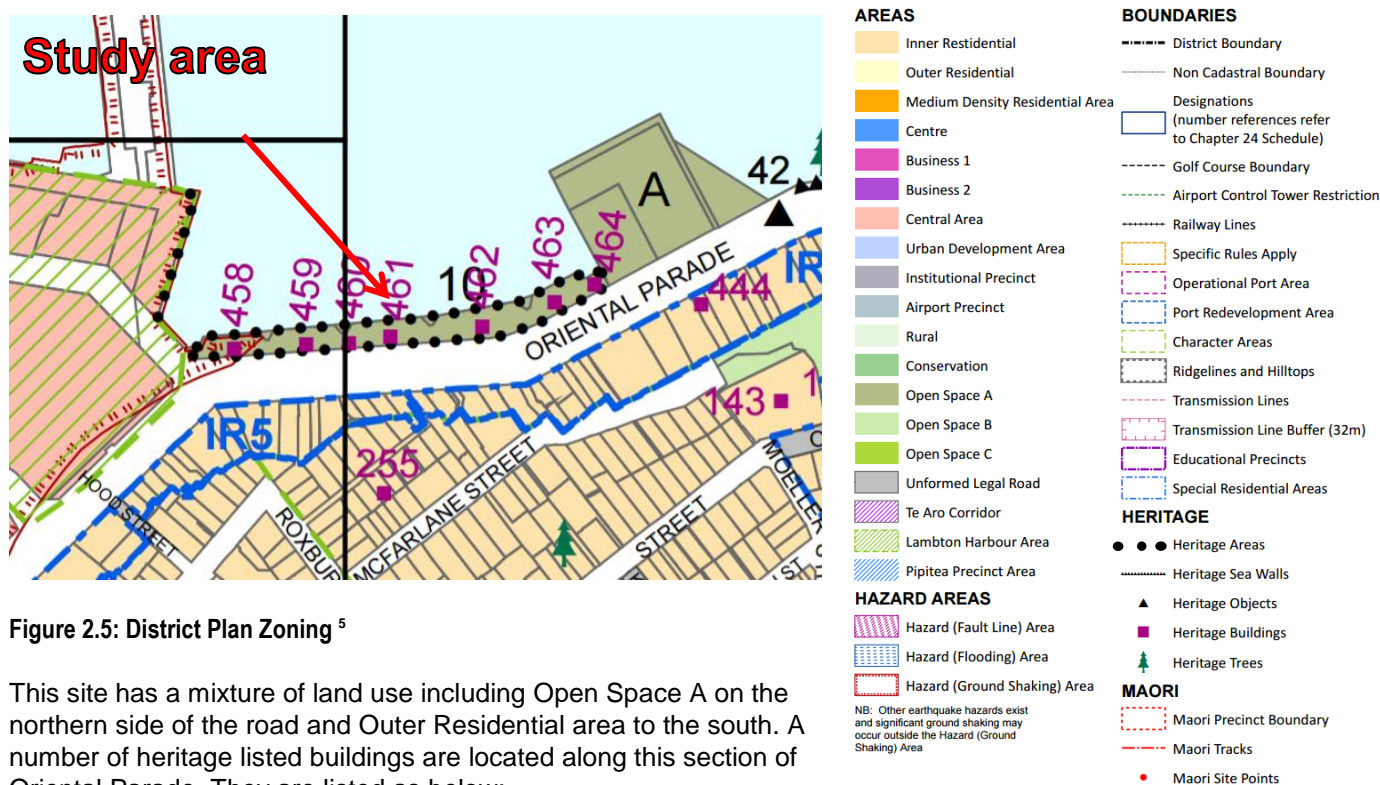


Figure 2.5: District Plan Zoning⁵

This site has a mixture of land use including Open Space A on the northern side of the road and Outer Residential area to the south. A number of heritage listed buildings are located along this section of Oriental Parade. They are listed as below:

- #458 Boat Shed 1-13
- #459 Boat Sheds
- #460 Former Te Aro Sailing Club Sheds
- #461 Clubhouse Building, Port Nicholson Yacht Club
- #462 Boat Sheds 38-49
- #463 Sheds and Slipway between the sheds
- #464 Former Clubhouse Building, Port Nicholson Yacht Club
- #444 Apartment Building 1930

For any changes to a listed heritage building, Wellington City Council requires a resource consent to ensure that work affecting the listed building can be fully evaluated and assessed to ensure the heritage values of the items are maintained. Although it is yet to be determined, this project is unlikely to have any impact on these heritage buildings as any road work will likely be limited within the road reserve.

Immediately to the south of the road reserve at this section of Oriental Parade, a special residential area has been designated according to Wellington City District Plan. The buildings within this area are governed by the Mt Victoria North Character Area Design Guide⁶. The guide sets out restrictions on the building design to ensure that the area's existing special character is maintained. This project is unlikely to have any impact on these buildings as any road work will likely be limited within the road reserve.

⁵ WCC, District Plan, Volume 3, Map 7. Retrieved online November 2016. <http://wellington.govt.nz/~media/your-council/plans-policies-and-by-laws/district-plan/volume03/files/v3map12.pdf?la=en>

⁶ WCC. Retrieved online in November 2016. <http://wellington.govt.nz/~media/your-council/plans-policies-and-by-laws/district-plan/volume02/files/v2mtvicnorth.pdf?la=en>

2.5 Street Trees

There are no heritage listed trees within the study area. Eleven mature small pohutukawa are evenly spaced on the northern side of the road between Herd Street and Freyberg Pool. A Wellington City Council arborist has advised that most of these trees were planted around 1948. The cost of removing the trees out of their current location will exceed \$100,000 per tree. It is noted that the Norfolk Pine trees east of the Freyberg pool are listed heritage trees.

3. Existing Road Structure

This section describes the study area's existing road layout, speed and parking restrictions, and the facilities available for pedestrian and cyclists.

3.1 Road Layout

Aerial photos of Oriental Parade (between Herd St and Freyberg pool) and photographs taken along within the study area are provided in Appendix A. The study area is relatively flat with only one moderate bend close to Herd St.

On the southern side of the road, the type of the frontage buildings is mainly low to medium density residential in land use. The only exception is the swimming and triathlon specialist shop opposite Freyberg pool, Vista café and Copthorne Hotel near Herd St intersection. On the northern side of the road where the shared path is located, there is the Royal Port Nicholson Yacht Club and Freyberg Pool.

This section of Oriental Parade typically provides a 4.0-4.2m wide single traffic lane in each direction and a flush median (1.2m to 2.5m in varying width). Kerbside parallel parking (Refer to Section 3.4) is provided on the southern side of the road and angle parking is provided on the northern side. The total carriageway width is around 18.0m wide between Herd St and Freyberg pool. Photographs showing the typical carriageway cross sections are shown in Figure 3.1 and Figure 3.2.



Figure 3.1: Oriental Parade carriageway between Herd St and Freyberg pool (facing west)



Figure 3.2: Oriental Parade carriageway between Herd St and Freyberg pool (facing east)

3.2 Intersection Layout

There is only one intersection located in the study area. It is described in the section below. Aerial photos of the intersection are also provided in Appendix A.

3.2.1 Herd Street/ Oriental Parade give way priority T-intersection

The layout for the Herd Street/ Oriental Parade priority T-intersection is shown in Appendix A, A.1. Key features include:

- Within a 40km/h “Safer Speed Area”;
- A right turn bay from Oriental Parade (westbound);
- Oriental Parade: two lanes citybound and one lane eastbound.
- Herd Street: One lane each direction but vehicles are able to wait side by side at give way control to turn either left or right
- The Herd Street approach has a 7.0m long speed table installed 8.0m behind the limit line.
- Herd Street is not a through route. It provides access to the waterfront 10km/h shared space and the car park; and
- The top of the T-junction is the apex of the road curve on Oriental Parade.

The photographs in Figure 3.3 and Figure 3.4 show the intersection layout.



Figure 3.3: Herd Street and Oriental Parade Intersection (facing southwest; Waitangi Park on the right-hand side)



Figure 3.4: Herd Street and Oriental Parade Intersection (facing east; towards Freyberg pool)

3.3 Extent of Speed and Parking Restrictions in the Study Area

Speed and parking restrictions along this section of Oriental Parade are shown in Figure 3.5.



Figure 3.5: Existing Speed and Parking Restrictions Overview

Within the study area, 40km/h speed restrictions are provided to improve safety for vulnerable road users. The speed restrictions are signed as “40 Safer Speed Area” near both the Cable Street/Oriental Parade and Herd Street/Oriental Parade intersections and road marked on the traffic lanes with a series of circled “40” to provide threshold treatments.

On the northern side of the road, time restricted parking extends over the entire study area. Only residents’ parking has been allowed on the southern side of the road. Restrictions on the northern side, which are either 2 or 10-hour maximum Pay & Display parking, cater for both short-term and long-term parking demand, promote turnover and ensure optimal use. Utilisation survey was excluded in detail as a part of this study but rough occupancy rates were recorded over the entire survey period (refer to Section 8 of this report).

3.4 Parking Provisions and Bus Stops

The existing on-street parking supply, time restrictions, existing bus stops in the study area are shown in Figure 3.6. There are no street loading facilities identified within the study area.

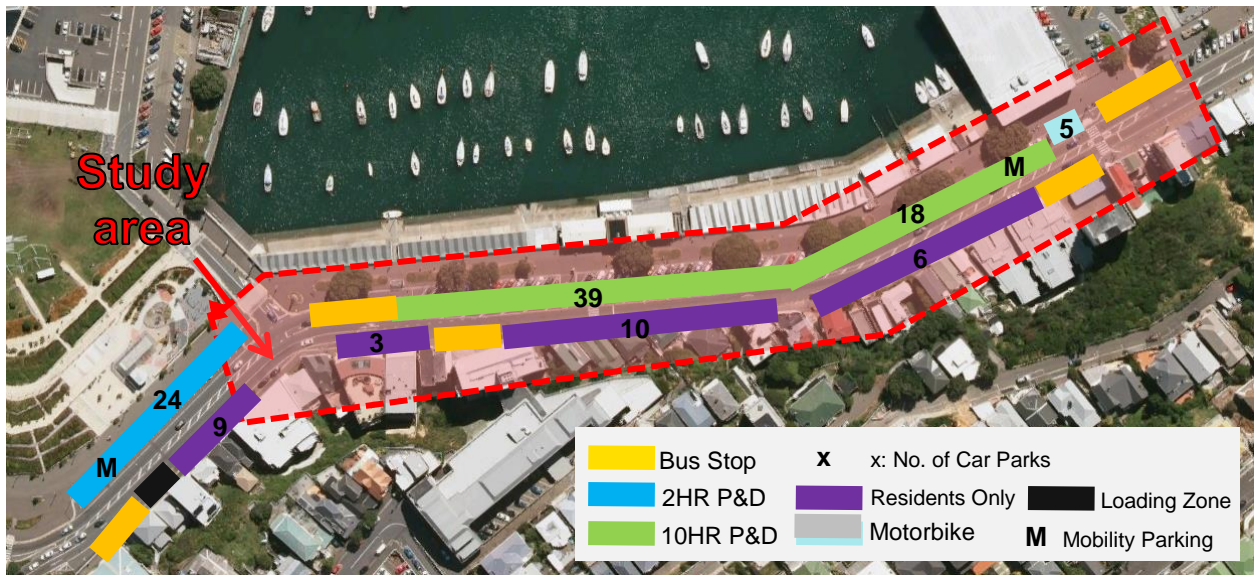


Figure 3.6: Existing Parking Provision, Restrictions and Bus Stops

In total there are around 76 car parks in the study area. Adjacent to residential houses (the southern side) they are all 'Resident Only' car parks. All the angled Pay & Display parking on the northern side has a 10 hour time restriction.

Outside the study area, parking has also been provided on Herd St, in Freyberg pool car park and near Waitangi Park.

Two sets of bus stops are located on both ends of the study area – one near Herd St and the other outside Freyberg pool. They are approximately 250 metres apart. Outside the study area, the nearest bus stops are 130 metres to the west and 250 metres to the east.

3.5 Facilities for Pedestrians and Cyclists

The existing pedestrian and cycle facilities are shown in Figure 3.7.



Figure 3.7: Existing Pedestrian and Cyclist Facilities

Within the study area, there are footpaths on both sides of the carriageway. The footpath on the southern side is generally 2.0m in sealed width and is in fair condition. There is double footpath pavement on the northern side of Oriental Parade (see Figure 3.8). The wider path closer to the harbour is 3.8m wide and the narrow path next to the angle parking is only 1.5m wide.



Figure 3.8: Shared path on the northern side.

Two zebra crossings have been provided on Oriental Parade. One of them is located directly outside Freyberg pool (Figure 3.9) and the other one is in front of Vista café (Figure 3.10). Both of them have kerb buildouts and refuge islands in the middle.



Figure 3.9 : Zebra Crossing Outside Freyberg Pool (Looking west; Source: Google)



Figure 3.10 : Zebra Crossing Outside Vista Cafe (Looking west; Source: Google)

4. People Walking

Pedestrian surveys were undertaken:

- on Wednesday 9th November 2016 and Sunday 13th November 2016 during peak periods to record the number of people walking across Oriental Parade within the study area. A total of length of 320m was surveyed, including the two zebra crossings; and
- on Wednesday 7th December 2016 and Sunday 29th January 2017 during peak hours to record the pedestrian movements at Oriental Parade/Herd Street intersection.

The results of the survey are shown in Figure 4.1, Figure 4.2, Figure 4.3 and Figure 4.4 on pages 14 to 17 of this report.

A summary of the findings is below:

1) **AM peak hour (7:31 AM and 8:30 AM):**

- A total number of 328 people used the shared path, 251 of them headed towards the city and 77 out;
- The majority of the pedestrians walked to and from the waterfront through Herd St rather than using the wide footpath outside Waitangi Park.
- Less than five people used the 1.5m wide narrow path in front of the angle car parks.
- A total number of 61 people crossed the road using the zebra crossings, 4 people did not use them.
- The zebra crossing on the western side of the study area was utilised slightly more than the eastern one (35 vs. 26).
- Most vehicles stopped well in advance of the crossings.

2) **Interpeak hour:**

- The peak hour was between 11:46 AM and 12:45PM, the pedestrian flow was more recreational;
- A total number of 342 people used the shared path, 133 of them headed towards the city and 209 out.
- Less than 10 people used the 1.5m wide narrow path in front of the angle car parks.
- Few people on bikes using the shared path when compared to AM/PM peaks.
- A total number of 83 people crossed the road using the zebra crossings, 16 people did not.
- The zebra crossing on the western side of the study area was utilised much more than the eastern one (69 vs. 14).
- Most vehicles stopped well in advance of the crossings, one rear-end near miss was witnessed.

3) **PM peak hour:**

- The peak hour was between 4:16 PM and 5:15 PM.
- The majority of the pedestrians on the shared path were commuters while a small percentage was recreational.
- A total number of 259 people used the shared path, 84 of them headed towards the city and 175 out;
- Less than 5 people used the 1.5m wide narrow path in front of the angle car parks.
- A total number of 60 people crossed the road using the zebra crossings, 24 people did not.
- The zebra crossing on the western side of the study area was utilised much more than the eastern one (45 vs. 15).
- Vehicle speed was generally slow due to heavy traffic flow.
- Most vehicles stopped well on time for the people using the crossings.

4) **Weekend peak:**

- Showed significantly higher walking movements (a total of 621 recorded), just over twice the weekday peak hour average (310).
- A total number of 500 people used the shared path, 285 of them headed towards the city and 215 out;
- Less than 5 people used the 1.5m wide narrow path in front of the angle car parks.
- Due to the windy weather condition during the January 29th survey, the number of people on bikes using both the shared path and the road could have been suppressed. People who cycle on the shared path were generally young kids on small bikes or family enjoying the crocodile bikes.
- A total number of 111 people crossed the road using the zebra crossings, 23 people did not.
- The zebra crossing on the western side of the study area was utilised much more than the eastern one (83 vs. 28).
- Vehicle speed was generally slow due to heavy traffic flow.
- Most vehicles stopped well on time for the people using the crossings.



Figure 4.1: Major movements by people walking in the AM peak hour (7:31 AM – 8:30 AM)



Figure 4.2: Major movements by people walking in the interpeak hour (11:46 AM – 12:45 PM)



Figure 4.3: Major movements by people walking in the PM peak hour (4:16 PM – 5:15PM)



Figure 4.4: Major movements by walking in the weekend peak hour (11:46 AM – 12:45 PM)

5. People Riding Bikes

This section presents the number of people on bikes travelling through this site. It also outlines the current level of service for people on bikes.

5.1 Cycle Cordon Count

Oriental Parade at Herd St is one of the Wellington City Council's annual transport monitoring sites. It is at the eastern boundary of the Wellington CBD cycle cordon count. Numbers of cyclists are surveyed during peak hours for an entire week in March every year.

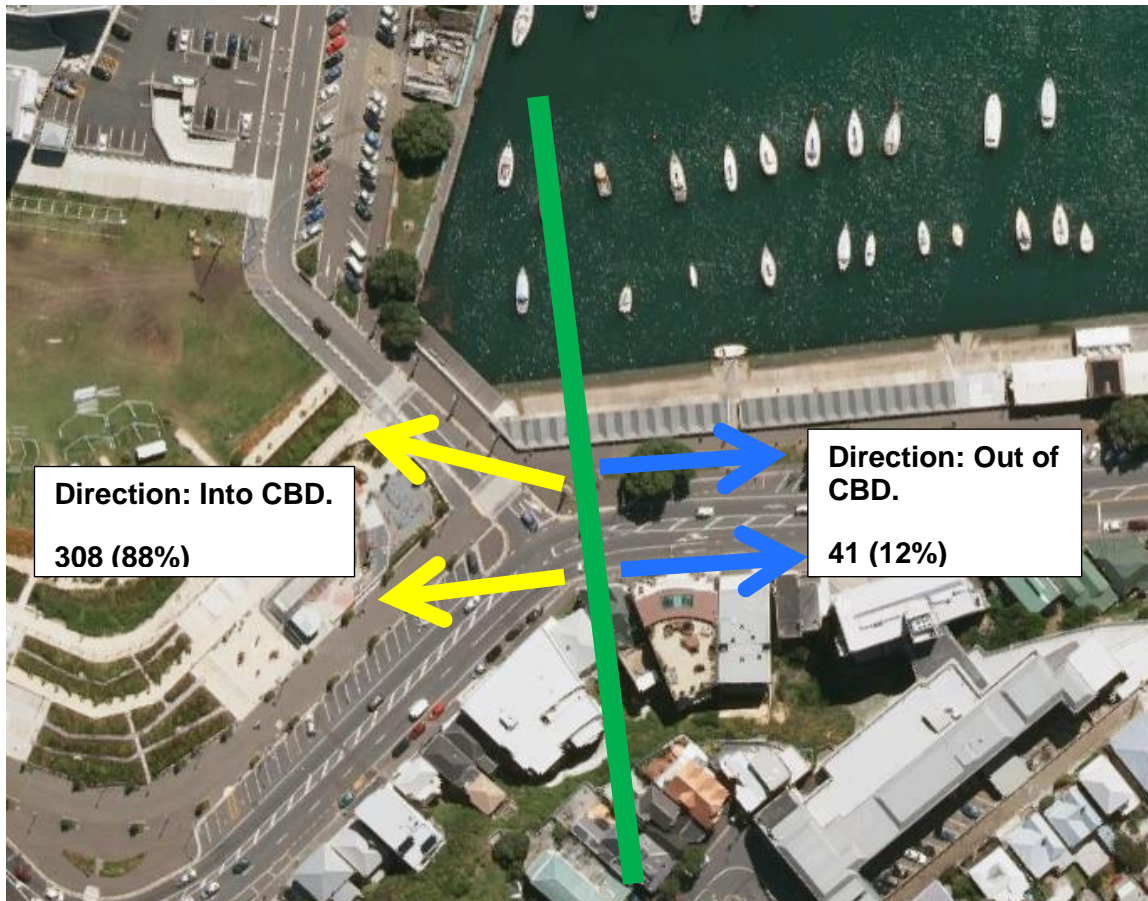


Figure 5.1 : Wellington City Council Annual Transport Monitoring Site - Oriental Parade at Herd Street (7AM-9AM)

In the March 2016 survey, an average of 308 cyclists were recorded entering and 41 exiting the CBD cordon during a two hour survey period between 7 AM and 9 AM during a typical week. The peak hour volumes were 200 (in) and 25 (out).

Site observations undertaken in November 2016 recorded a 3-1 (75% vs. 25%) split between the number of cyclists turning right into the waterfront area through Herd St and the number of cyclists continuing to travel on Oriental Parade when entering the city area.

5.2 Cycle Movement Count at Oriental Parade/Herd Street Intersection

Cycle surveys were undertaken on Wednesday 7th December 2016 and Sunday 29 January 2017 during peak periods to record the number of people cycled near the intersection of Oriental Parade and Herd Street, either on the shared path or on the road.

The results of the survey are shown in Figure 5.2, Figure 5.3, Figure 5.4 and Figure 5.5 on pages 19 and 20 of this report.



Figure 5.2 : Major movements by people biking in the AM peak hour (7:31 AM – 8:30 AM)

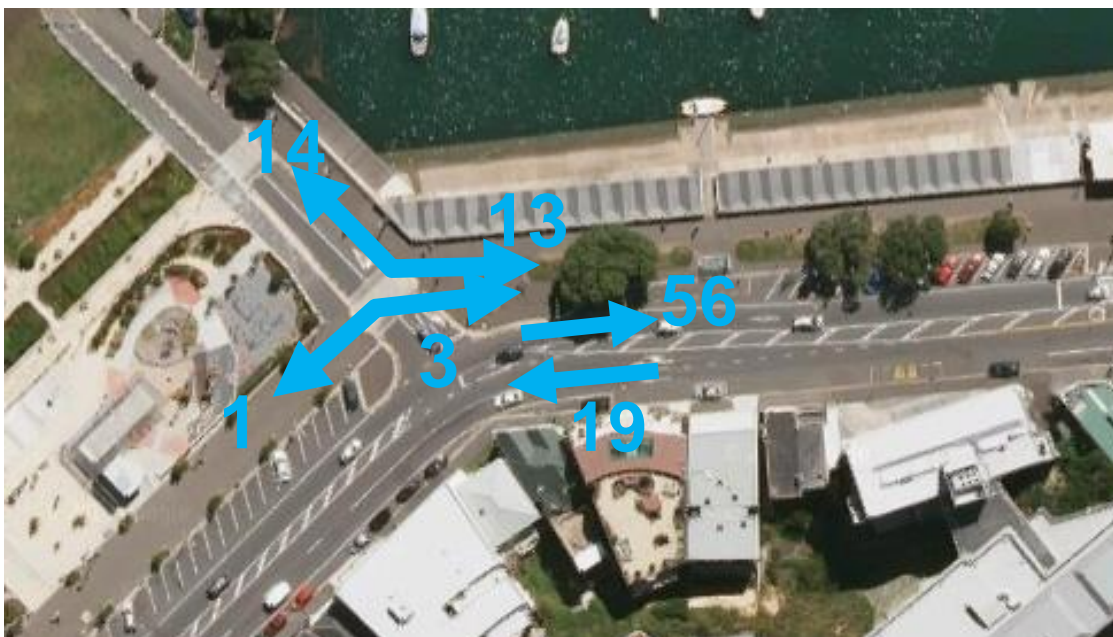


Figure 5.3 : Major movements by people biking in the inter-peak hour (11:46 AM – 12:45 PM)

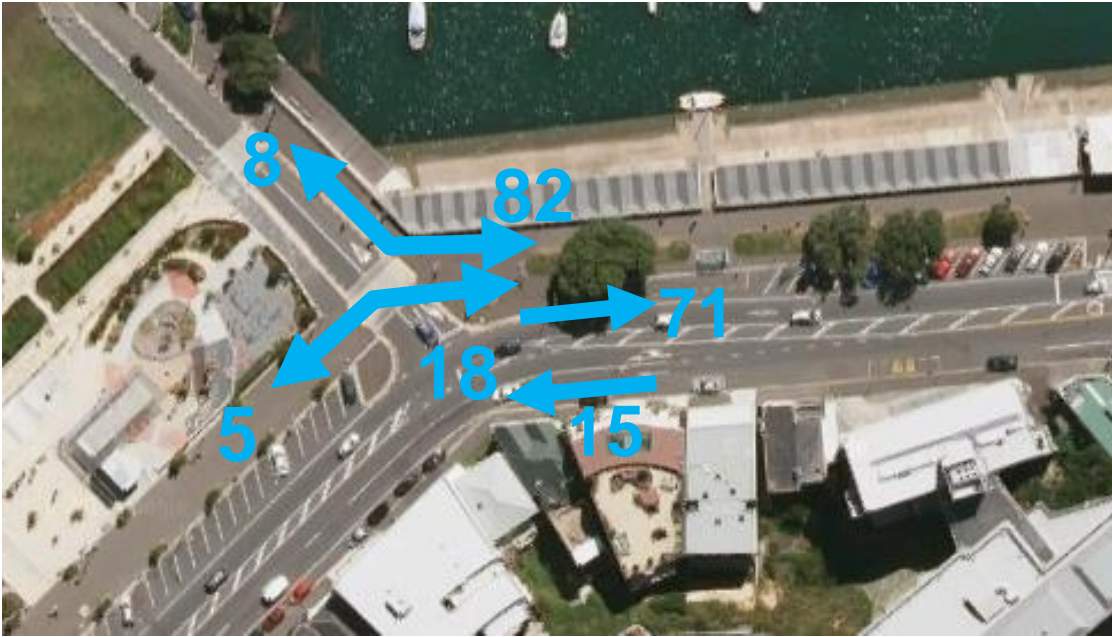


Figure 5.4 : Major movements by people biking in the PM peak hour (4:16 PM – 5:15 PM)



Figure 5.5 : Major movements by people biking in the weekend peak hour (11:46 AM – 12:45 PM)

5.3 Cyclists LOS Using the Danish Method

The WCC commissioned a study by McPhedran and Nicholls in 2014⁷ which compared eight methods of assessing cycle level of service (LOS) and concluded that the 'Danish Method' produced by Jensen (Jan, 2007) was the best. This method was developed in conjunction with a pedestrian model and attempted to objectively quantify pedestrian and bicyclist satisfaction with road sections between intersections. The model's methodology is closely aligned with the NZTA Cycle network and route planning guide. The Danish cycling LOS calculation also makes some allowance for pedestrian interactions.

One drawback of the Danish Method is that it does not account for intersections or other access conflicts. In addition it was noted that Danish user expectations for a separate bike path are high and may influence the study findings and relative ranking of criteria. This method also excludes heavy vehicle and surface condition influences.

Using the Danish Method, an assessment has been made of the cycling LOS for the section of on-road Oriental Parade between Herd Street and Freyberg pool and is shown in Figure 5.6.



Oriental Parade

Current level of service
for people on bikes

Herd St



Freyberg Pool

A	Good	North side	LOS: E	
B		South side	LOS: E	
C	Average			
D		Traffic volume	17357 vpd	Peak hour 17:16 - 18:15
E	Poor	Westbound Speed (85%ile)	46 km/h	
F		Eastbound Speed (85%ile)	45 km/h	

Figure 5.6 : Danish LOS for cyclists

It can be seen that for both eastbound and westbound cycle traffic, the level of service is E which is well below the average. The angle car park adjacent on the westbound traffic lane makes the level of service for outbound cyclists worse than measured. This suggests that there is a lot of room and an urgent need for improvement in cycle infrastructure for this section of Oriental Parade.

⁷ McPhedran, B. & Nicholls, A. (2014). "MEASURING THE CYCLING LEVELS OF SERVICE IN WELLINGTON – HOW BAD IS IT?". Retrieved online November 2016. <http://conf.hardingconsultants.co.nz/workspace/uploads/mcphedran-brett-measuring-c-532508c5236b3.pdf>

5.4 Adequacy of the Shared Path

VicRoads' Cycle Note 21 – Width of Off-road Shared Use Path⁸ was used to analyse the adequacy of the shared path width along Oriental Parade. Given the pedestrian and cycle flows in the morning and afternoon commuter peaks are closer to the 90/10 traffic directional split and the inter-peak flow is closer to the 50/50 directional splits. Both scenarios have been examined.

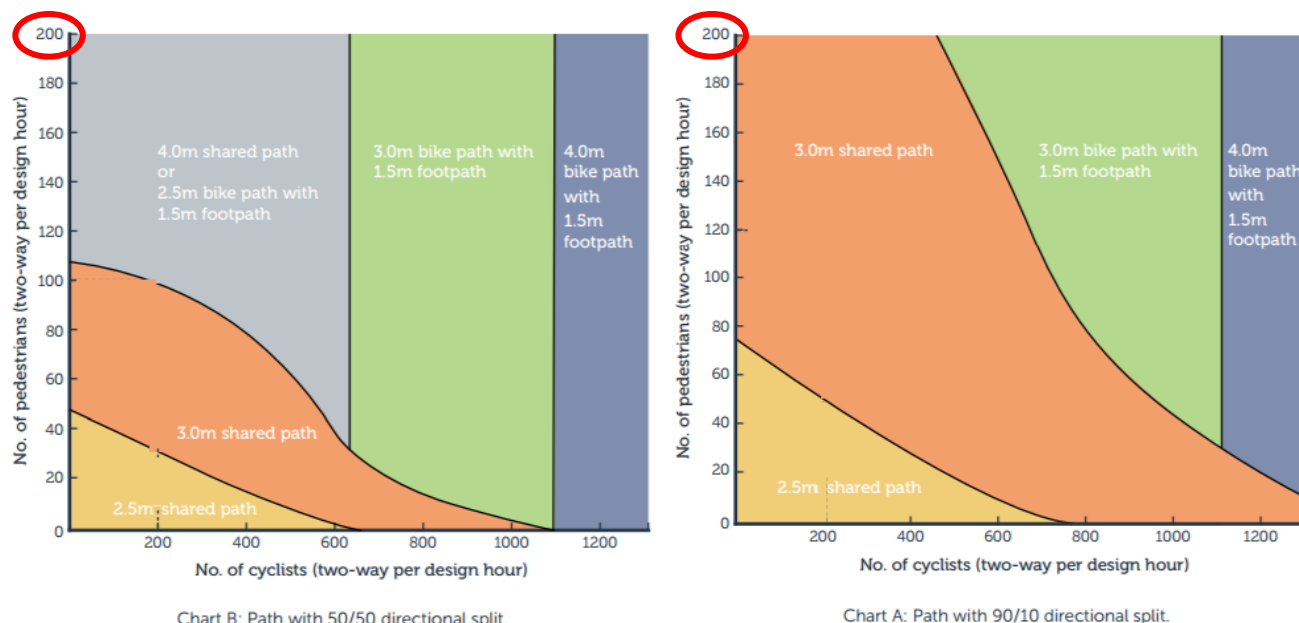


Figure 5.7 : Widths of off-road shared use path vs. pedestrian/cycle flows

The recorded two-way pedestrian flow on the shared path along Oriental Parade exceeded 300 during both the commuter peaks (AM & PM) and the recreational peak (around noon). This figure is 50% more than the '200' provided on the above charts. Even when '200' is used as the pedestrian flow on the shared path, it is recommended in the 50/50 directional split scenario that a 4.0m shared path or 2.5m bike path with 1.5m footpath is provided.

This suggests that the appropriateness of mixing pedestrian and cycle traffic on this 3.8 metre wide shared path along Oriental Parade needs to be considered. The width of the path is unlikely to be sufficient for the observed pedestrian/cycle volume at this site.

It was observed during the site visits that the cyclists frequently needed to slow down or even stop to give way to pedestrians when the path was busy.

⁸ VicRoads, (2013). Cycle Notes 21 – Width of Off-Road Shared Use Path. Retrieved online December 2016.
http://viastrada.nz/sites/viastrada.nz/files/Cycle_Notes_21_0813_WEB.pdf

6. People Using Buses

6.1 Bus Routes

The current bus routes that use Oriental Parade and all existing bus stops are shown in Figure 6.1. Details of bus routes in Wellington are provided in Appendix B.



Figure 6.1: Existing bus stops and routes in the study area

These services include route 14 and 24. Route 14 runs between Wilton and Rongotai through Kilbirnie. Route 14 buses travel through Oriental Parade every half an hour during peaks and only every hour outside the peak time. Route 24 services between Wellington Railway Station and Miramar Heights. The buses on this route operate every 15 minutes during peak hours and only every 30 to 60 minutes outside the peak time.

6.2 Proposed Changes

From 2018, the bus routes throughout Wellington City will change significantly as Greater Wellington Regional Council is currently looking to improve the bus network, but the change will have limited impact on the services along Oriental Parade. The two current services will still be running at similar frequencies. Greater Wellington Regional Council has confirmed that there are no plans under the 2018 project for these stops. There is also no work planned for these bus stops from a business as usual perspective. Details of the proposed 2018 bus routes in Wellington are also provided in Appendix B.

As the bus stops outside the study area are 130 metres to the west and 240 metres to the east, rationalisation of these bus stops could be considered.

7. People Using Vehicles

This section presents the speed and traffic volume along the study area and vehicle turning movement counts at the Oriental Parade/ Herd Street intersection. Future increases in transport demand were also discussed.

7.1 Turning Counts at Herd Street/Oriental Parade Intersection

The waterfront entrance/exit through Herd Street is a key destination at this section of Oriental Parade. Vehicle turning movements at Oriental Parade/ Herd Street have been surveyed during peak hours on a typical weekday and a Sunday when the nearby waterfront market was held.

Surveys were undertaken during peak hours on Wednesday 9th November 2016 and Sunday 13th November 2016 to record vehicle movements at this intersection. Queue lengths were not surveyed based on the Client's instruction as SIDRA modelling was not required for this intersection. The survey was undertaken manually.

The traffic counts at the intersections are shown in Figure 7.1, Figure 7.2, Figure 7.3 and Figure 7.4 as flow diagrams where the arrows are scaled to represent the relative flow volumes.

7.2 Existing Tube Count Data from Outside 144 Oriental Parade

Wellington City Council supplied the existing traffic count data from August 2016. The tube count site was located outside 144 Oriental Parade, at the eastern end of the study area. Data from outside 196 Oriental Parade was also supplied. However it was not analysed as it was five years old and slightly outside the study area.

The traffic counts are also shown in Figure 7.1, Figure 7.2, Figure 7.3 and Figure 7.4 as flow diagrams where the arrows are scaled to represent the relative flow volumes.



Figure 7.1: Vehicle movements in the AM peak hour (7:31 AM – 8:30 AM)



Figure 7.2: Vehicle movements in the interpeak hour (11:46AM – 12:45PM)



Figure 7.3: Vehicle movements in the PM peak hour (4:16 PM – 5:15 PM)



Figure 7.4: Vehicle movements in the Sunday peak hour (11:46AM – 12:45PM)

A summary of the findings in the individual periods surveyed is provided below:

1) **AM peak (7AM – 9AM):**

- This section of Oriental Parade carries an average eastbound flow of around 559 vph and westbound flows of around 584 vph;
- At this time both eastbound and westbound flows are lower compared to afternoon and weekend peak hours;
- Number of vehicles turning in and out of Herd St is small compared to the main street traffic flow;
- Small delays observed for vehicles turning out of Herd St but the delays were not significant.

2) **Interpeak (11AM – 1PM):**

- This section of Oriental Parade carries an average eastbound flow of around 590 vph and westbound flows of around 503 vph;
- At this time flows are moderate in both directions;
- Number of vehicles turning in and out of Herd St is small compared to the main street traffic flow;
- Small delays observed for vehicles turning out of Herd St but the delays were not significant.

3) **PM peak (4PM – 6PM):**

- This section of Oriental Parade carries an average eastbound flow of around 898 vph and westbound flows of around 690 vph;
- At this time traffic flows are high and comparable to the Sunday traffic flows;
- Number of vehicles turning in and out of Herd St is still small compared to the main street traffic flow.
- Small delays observed for vehicles turning out of Herd St but the delays were not significant. Due to slower speed, drivers travelling on Oriental Parade were able to give way to some of the traffic from Herd St.

4) **Weekend peak (11AM – 2PM):**

- This section of Oriental Parade carries an average eastbound flow of around 884 vph and westbound flows of around 720 vph;
- At this time traffic flows are at their highest for the week;
- Number of vehicles turning in and out of Herd St is still small compared to the main street traffic flow.
- Small delays observed for vehicles turning out of Herd St but the delays were not significant. Due to slower speed, drivers travelling on Oriental Parade were able to give way to some of the traffic from Herd St.

7.3 Future Increases in Transport Demand Due to Land Development

It is expected that there will be an increase in transport demand along Oriental Parade in the future due to land development occurring in the eastern suburbs. The Wellington Urban Growth Plan, as described in section 2.3, provides an indication of growth that can be expected⁹. Within the City, the plan expects the population to grow by around 50,000 over the next 30 years. Some of this growth will occur in the eastern suburbs. The suburbs of Miramar and Kilbirnie have been noted as being key centres for growth. As there is no immediate or medium term traffic improvements planned for the Basin Reserve area, many drivers will continue to use Oriental Parade – Evans Bay Parade as an alternative, traffic signal-free route to and from the eastern suburbs and the airport.

7.4 Speed

Vehicle speed data for the study area has been obtained from WCC traffic counts undertaken from 11-18th August 2016. Additional data can be found in Appendix D of this report. The speed data is summarised in Figure 7.5.



Figure 7.5 : Recorded average and 85th percentile vehicle speeds for eastbound and westbound traffic

The data shows speeding occurred on Oriental Parade outside Freyberg Pool. Although the average speed for vehicles traffic in both directions were within the 40km/h speed restriction. The operating speeds for both directions were around 45km/h which was 5km/h over the limit.

General observation has shown that vehicles travelled at a slightly lower speed when they were next to the angle car parks.

⁹ Wellington Urban Growth Plan 2014-2043, WCC

8. On Street Parking

Parking utilisation surveys were undertaken on Wednesday 9th November 2016 and Sunday 13th November 2016 to provide a snapshot of the parking utilisation along this section of Oriental Parade at 30-minute intervals.

The existing parking facilities are shown in Figure 8.1.



Figure 8.1: Existing Parking Facility

The table below summarises the parking utilisation rate for Zones 1 to 5 at 30-minute intervals. Note that the numbers have been rounded to the nearest 5%. Time periods with higher than 85% utilisation rate have been highlighted.

		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Wednesday, 9 November 2016	7:01-7:30	30%	30%	70%	70%	100%
	7:31-8:00	15%	55%	75%	65%	70%
	8:01-8:30	15%	80%	70%	65%	85%
	8:31-9:00	35%	85%	90%	85%	85%
	11:01-11:30	65%	85%	90%	100%	85%
	11:31-12:00	55%	70%	100%	100%	100%
	12:01-12:30	50%	65%	90%	100%	70%
Wednesday,	12:31-13:00	35%	60%	70%	85%	100%

9 November 2016	16:01-16:30	35%	55%	65%	100%	100%
	16:31-17:00	40%	50%	50%	100%	100%
	17:01-17:30	25%	60%	70%	100%	85%
	17:31-18:00	30%	60%	65%	80%	100%
Sunday, 13 November 2016	11:01-11:30	95%	100%	95%	100%	100%
	11:31-12:00	100%	100%	95%	100%	85%
	12:01-12:30	100%	95%	100%	100%	85%
	12:31-13:00	95%	90%	100%	90%	100%
	13:01-13:30	85%	100%	100%	100%	100%
	13:31-14:00	90%	80%	100%	100%	100%

The key observations were:

5) **AM peak hour:**

- Residential parking (Zone 4&5) less occupied compared to other times;
- Low utilisation rate for the 2 hour Pay&Display car parks next to Waitangi Park;
- Low turnover observed.

6) **Interpeak peak hour:**

- Residential parking almost fully utilised during the entire period;
- High utilisation of 10-hour Pay&Display car parks;
- Moderate utilisation of the 2-hour Pay&Display car parks.

7) **PM peak hour:**

- Residential parking almost fully utilised during the entire period;
- Moderate utilisation cross Zone 1, 2 and 3.

8) **Weekend peak hour:**

- High utilisation throughout the study area with high turnover and some overstaying due to the Sunday market.

9. Road Safety

The crashes reported to the police within the study area were extracted from the NZ Transport Agency's Crash Analysis System (CAS) database for the ten year period 2006-2015. There were 46 crashes; none were fatal. The tabulated crash history summary can be found in Appendix E.

As shown in Figure 9.1, the crashes are evenly distributed over the study area in both location and conflict, although most crashes occurred at mid-block locations rather than the T-junction of Herd Street/ Oriental Parade.

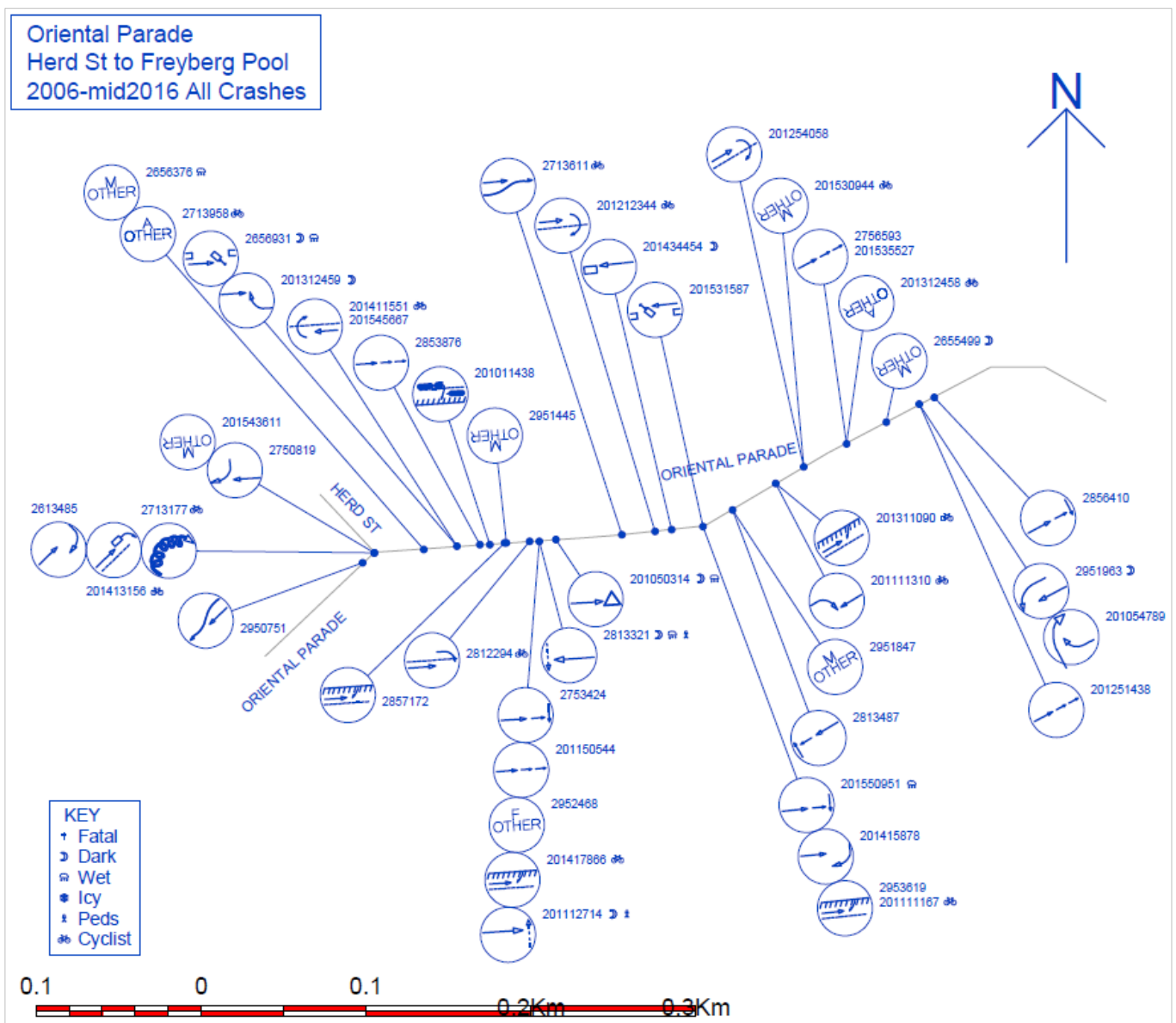


Figure 9.1: Collision diagram of crash history 2006-2015

Of these 46 crashes:

- 19 were injury crashes, including 3 serious and 16 minor injuries.
- 12 crashes (63% of all injury crashes) involved people on bikes. This is an unusually high proportion of all injury crashes. Most cycle crashes involved cars turning in and out of angle car parks, U-turning or overtaking on Oriental Parade.

- 30 crashes (65%) were of “Rear End/Obstruction” type, 7 crashes (15%) involved crossing/turning.
- Poor observation is a main crash factor and contributed to 28 crashes (61%), the other significant contributing factors were “failed giveaway/stop” (20%) and “poor judgement” (17%).
- 2 crashes (9%) involved people walking, one of them involved vehicle failing to give way at the zebra crossing, hitting the pedestrian and resulting in minor injury. The other crash involved a turning vehicle clipping a pedestrian. No injury was recorded.
- 89% of crashes were in dry conditions.
- 83% of crashes were in daylight.

The injury-only crashes are summarised in Figure 9.2 by severity, in Figure 9.3 by modes involved and in Figure 9.5 by driver and vehicle factors.

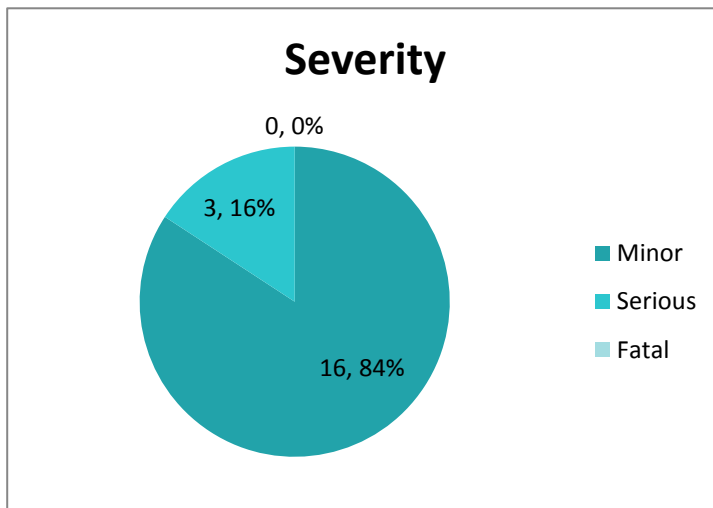


Figure 9.2: 2006-15 crash history by severity (Injury crash only)

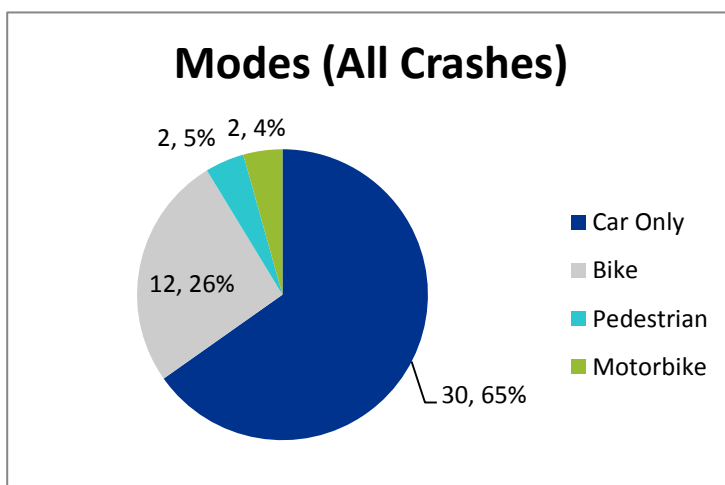


Figure 9.3: 2006-15 crash history by modes involved (All crashes)

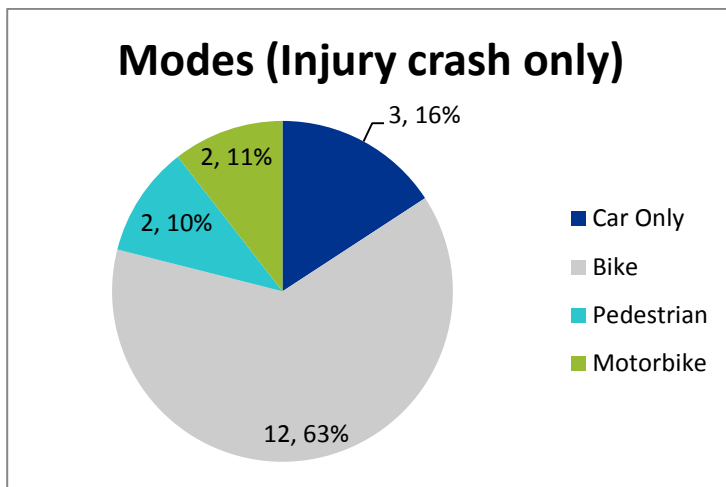


Figure 9.4: 2006-15 crash history by modes involved (All crashes)

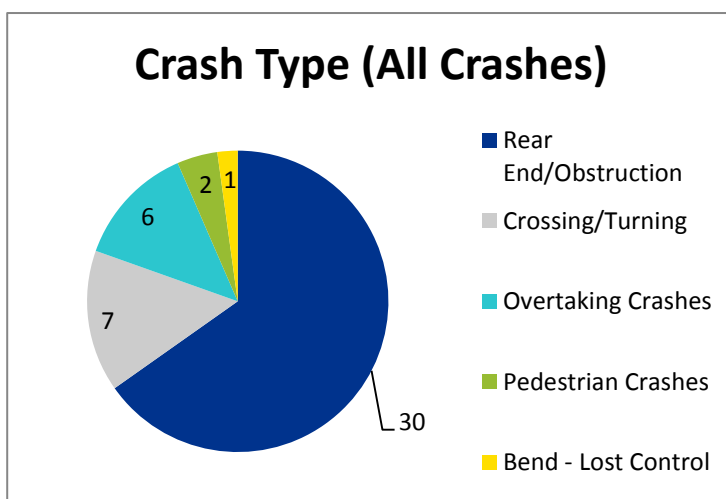


Figure 9.5: 2006-15 crash history by crash type

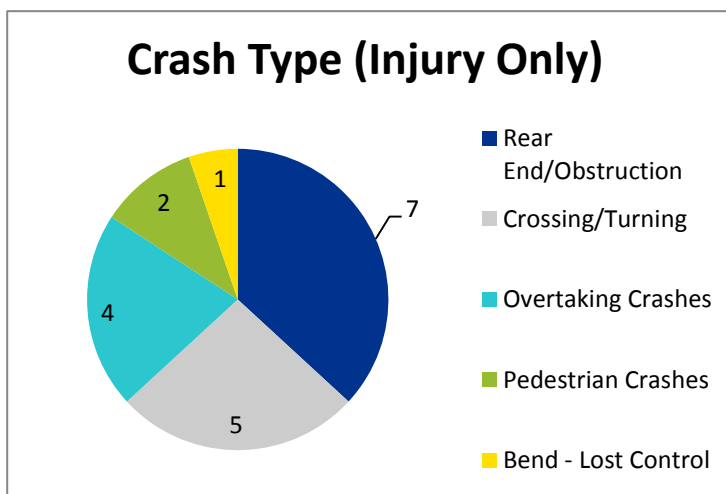


Figure 9.6: 2006-15 crash history by crash type (injury crashes only)

The distribution of injury crashes by location and severity is shown in Figure 9.7.

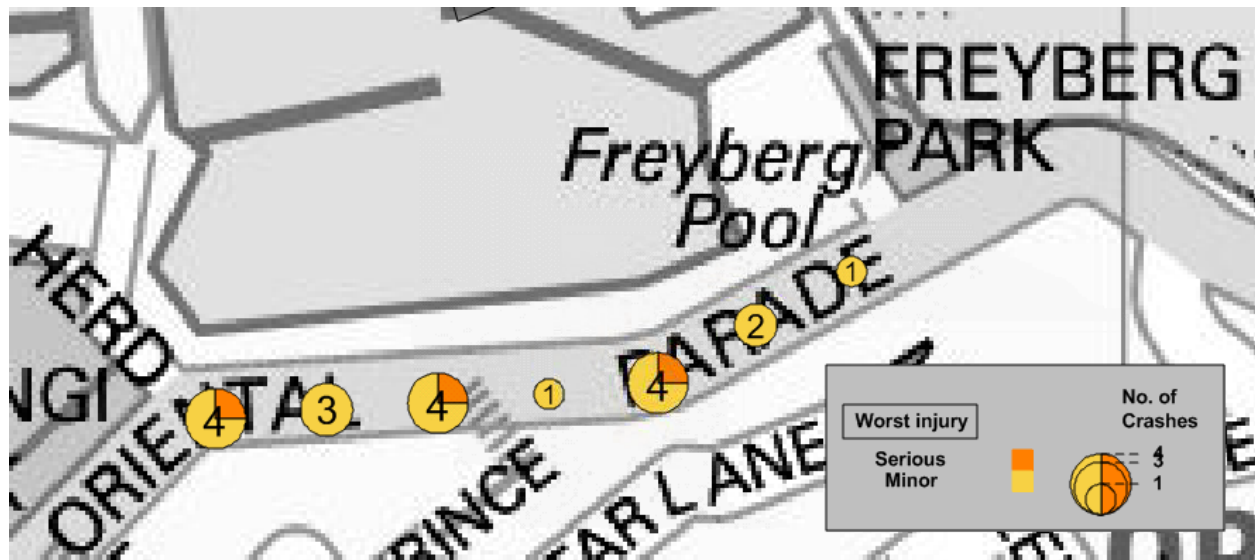


Figure 9.7: Injury crash distribution by location and severity

The western half of the study area has slightly higher numbers of injury crashes and higher severity with three serious crashes recorded. Four crashes were recorded near Herd St including one serious crash. A close examination of the traffic crash reports has revealed that most of these crashes involved vehicle crossing/turning and rear-ending at the angle parking and occasionally at the driveways/garages.

The distribution of crashes involving people on bikes is shown in Figure 9.8. They are distributed evenly across the entire study area. Detailed crash reports suggest that 10 out of all 14 cycle crashes (71%) involved a cyclist travelling on the northern side of the road, which is where the angle car parks are located. Half of the cycle crashes (7) occurred during the weekend and 42% of all cycle crashes were concentrated in the summer months of January and February.

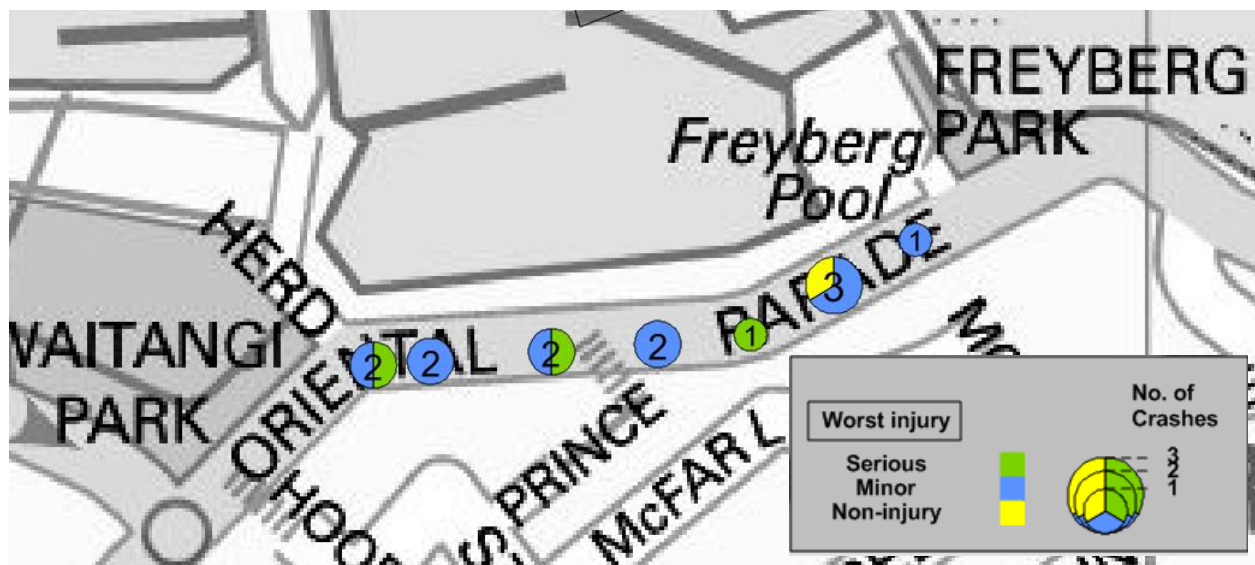


Figure 9.8: Crash distribution involving people on bikes by location

10. Conclusions

Oriental Parade is a popular destination on Wellington's waterfront. The demand for space within the road corridor is high due to the need to provide for access, parking and movement while also providing a streetscape that meets urban design objectives (for example creating a greater sense of place) and attracts people to the waterfront. For this reason any improvements will need to balance a number of competing objectives.

The study has shown transport demands are the highest in the weekend when there is more intense activity in the waterfront area including people walking, jogging and biking along waterfront and visiting the Sunday market near the Te Papa museum.

There is an existing shared path along the northern side of the street which connects with a shared zone at Herd Street and a 10.5 metres wide shared path starting from Freyberg Pool extending along the seaward side of Oriental Parade. The 3.8m wide path is substandard and not adequate for sharing between pedestrians and people on bikes. The 1.5m wide path in front of the angle car parks is currently under-utilised because its narrow width is often compromised by the overhanging vehicles.

Cycle flows are high during peak commuting hours on midweek days and moderate during the weekend. Two groups of cyclists are evident by the patterns of flow. They are commuter cyclists on midweek days and recreational cyclists in the weekend, although recreational riders do use Oriental Parade throughout the week as Oriental Parade is part of the popular coastal cycle route. The annual cycle cordon survey undertaken by WCC recorded approximately 350 peak hour movements passing the study area between 7 AM and 9 AM on an average weekday.

There is no issue identified with the current operation of the bus stops. The bus services passing this site will not be affected by the new 2018 bus network currently developed by the Greater Wellington Regional Council. However, it is recommended that sensible ways of rationalising the bus stops in the area could be explored.

There are no heritage listed trees within the study area. However, the impact on the eleven mature Pohutukawa trees along the shared path need to be considered as they currently contribute positively to the streetscape and the cost of removing or relocating them is likely to exceed \$100,000 per tree.

Crash data from the NZ Transport Agency's Crash Analysis System shows that over the ten year period of 2006 - 2015, 63% of all injury crashes involved people on bikes. Cycle crashes are over represented in crash history. Two crashes (9%) involved people walking, one resulting in minor injury and the other non-injury.

Due to the limited number of garages and driveways located along this section of Oriental Parade, the flush median between Herd Street and Freyberg car park is not well used by turning vehicles. However, the flush median is important as it does provide space to people crossing the road if they choose not to use the zebra crossings. It may also have contributed to a safer speed along this section of Oriental Parade.

Resident parking along the southern side of the road is almost always fully occupied. Angled car parks are generally well utilised during the weekend but the utilisation rate is only around 70% during the week.

In the future, transport demands are expected to increase with increased residential development in the eastern suburbs.

All these competing issues will require consideration in developing options for improving the level of service for people who walk and cycle along this section of Oriental Parade, as well as providing benefit to the greater transport network.

Appendix A. Aerial Photographs of Site¹⁰

¹⁰ Aerial imagery was retrieved from Google Earth Pro, Google 2016. Imagery of the site is dated 3/2/2009. Reproduced on basis of full attribution.

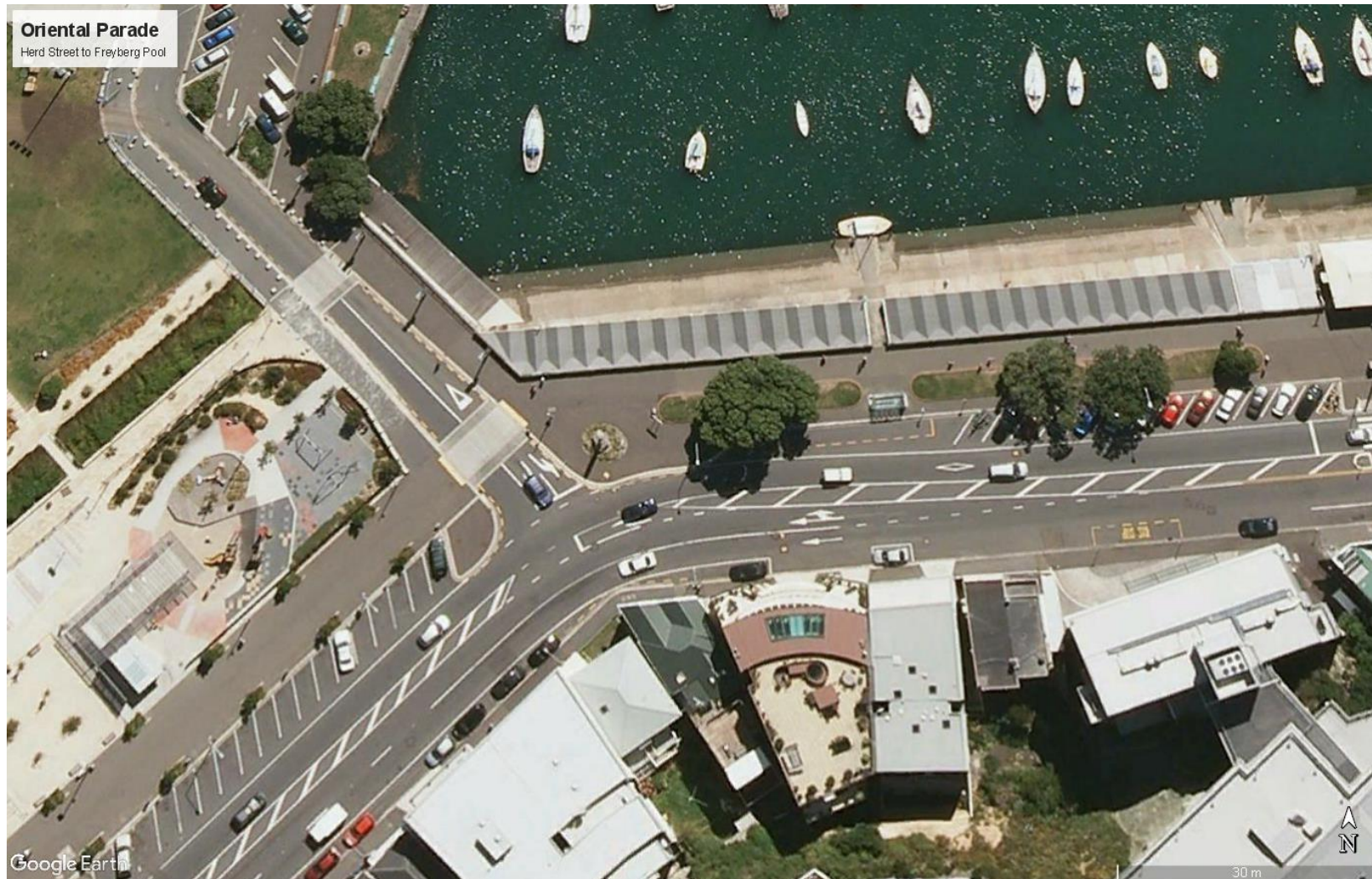
A.1 Aerial 1

Left to right: Herd St/ Oriental Parade intersection; Oriental Parade; Freyberg pool.



A.2 Aerial 2

Left to right: Waitangi Park; Herd Street/Oriental Parade Intersection; Oriental Parade towards Freyberg Pool.

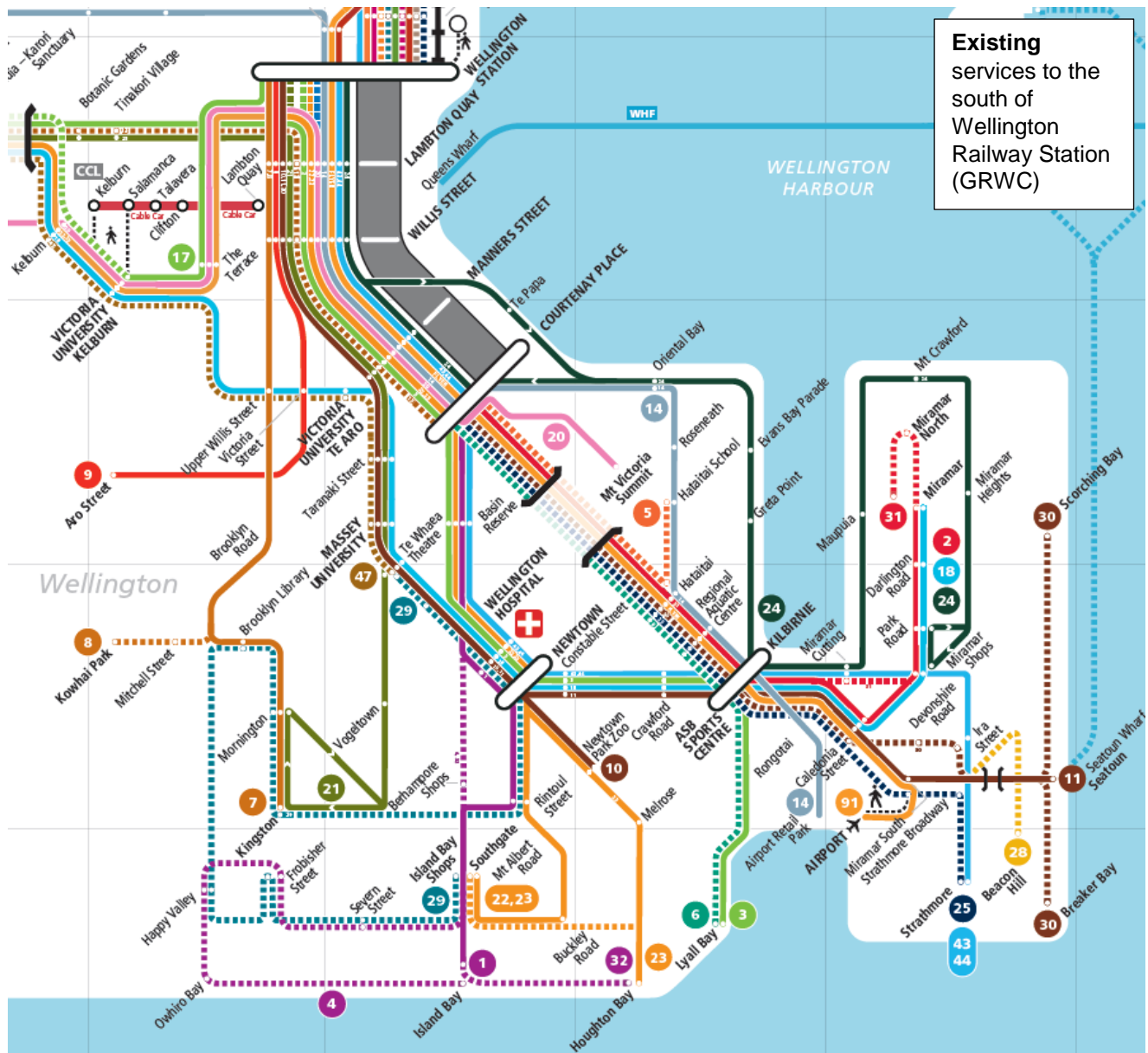


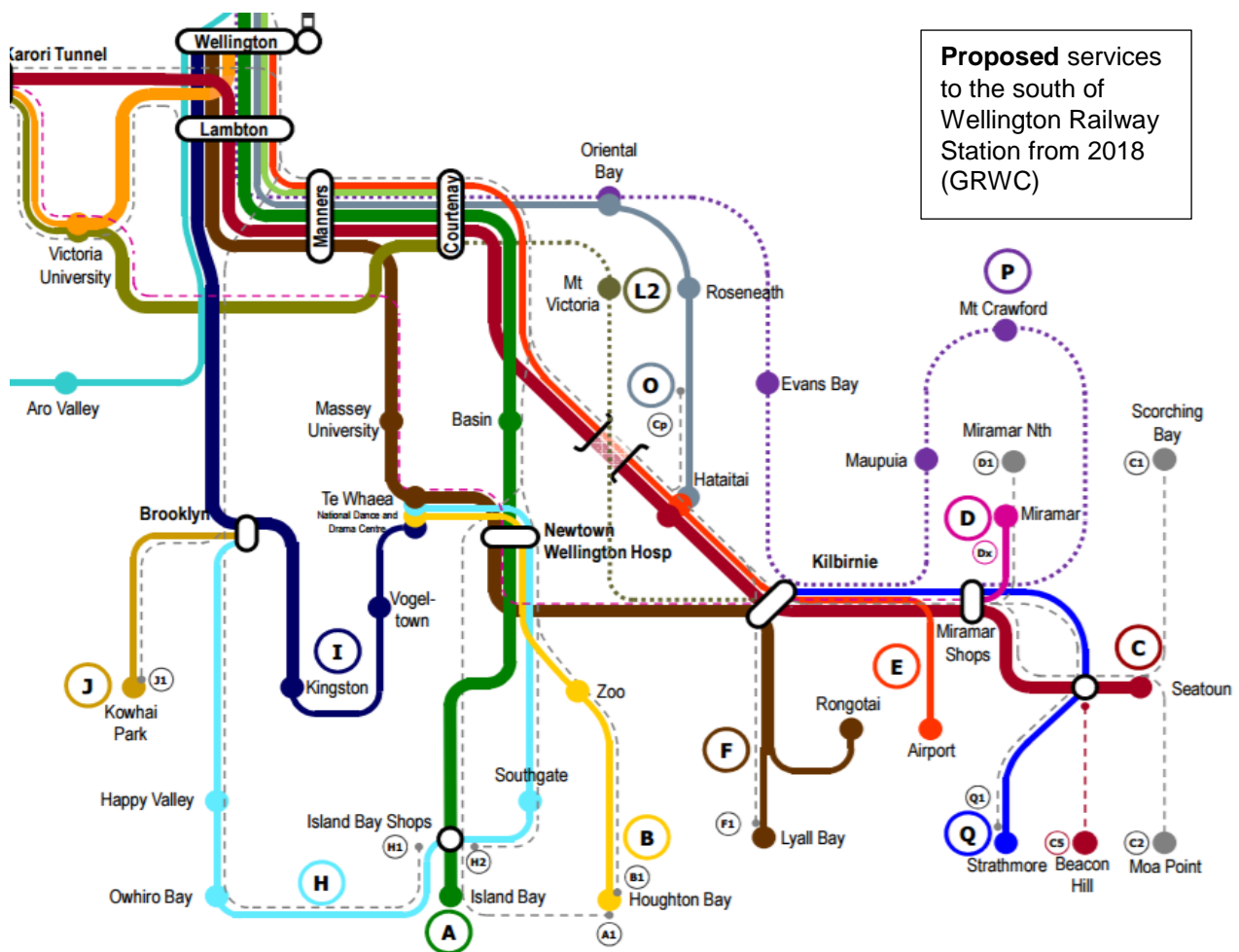
A.3 Aerial 3

Left to right: Oriental Parade towards Waitangi Park; Freyberg Pool; Freyberg carpark; Oriental Parade towards Point Jerningham.



Appendix B. Existing and Proposed Bus Routes





Appendix C. Existing Bus Service Timetables

14

TO KILBIRNIE, RONGOTAI MONDAY TO FRIDAY



* ORIGIN

	AM																	
Wilton – Surrey Street	6.35	6.50	7.05	7.20	–	7.35	–	7.45	7.50	–	8.05	–	8.20	8.35	8.50	9.20	9.50	10.20
Wadestown Shops (near 98)	6.45	7.00	7.15	7.32	7.40	7.47	7.52	7.57	8.02	8.10	8.17	8.25	8.32	8.47	9.02	9.30	10.00	10.30
Molesworth Street – New World	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wellington Station – Stop C	6.52	7.07	7.22	7.39	7.47	7.54	7.59	8.04	8.09	8.17	8.24	8.32	8.39	8.54	9.09	9.37	10.07	10.37
Courtenay Place – Blair Street	7.04	7.19	7.35	7.52	8.00	8.07	8.12	8.17	8.22	8.30	8.37	8.45	8.52	9.07	9.22	9.50	10.20	10.50
Roseneath Shops	–	7.27	–	8.00	–	–	–	–	8.30	–	–	–	9.00	–	9.30	9.58	10.28	10.58
Hataitai Village (near 23)	–	7.32	–	8.05	–	–	–	–	8.35	–	–	–	9.05	–	9.35	10.03	10.33	11.03
Kilbirnie Shops – Stop C	–	7.39	–	8.12	–	–	–	–	8.42	8.50	8.57	–	9.12	–	9.42	10.11	10.41	11.11
Airport Retail Park	–	7.41	–	8.15	–	–	–	–	8.45	–	–	–	9.15	–	9.45	10.14	10.44	11.14
	TC	TC	TC	TC	TC	TC	TC	TC	vBR	vBR	TC	TC						

To Kilbirnie continued	At these minutes past the hour 12pm until 2pm			PM														
Wilton – Surrey Street	–	–	.20	–	.50	2.20	–	2.50	3.20	3.50	–	4.20	–	4.50	–	5.20	–	5.50
Wadestown Shops (near 98)	–	–	.28	–	.58	2.28	–	2.58	3.28	3.58	–	4.28	–	4.58	–	5.28	–	5.58
Molesworth Street – New World	.03	.23	–	.43	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Wellington Station – Stop C	.10	.30	.35	.50	.05	2.35	2.50	3.05	3.35	4.05	4.20	4.35	4.50	5.05	5.20	5.35	5.50	6.05
Courtenay Place – Blair Street	.23	.43	.48	.03	.18	2.48	3.03	3.18	3.48	4.20	4.35	4.50	5.05	5.20	5.35	5.50	6.05	6.16
Roseneath Shops	–	–	.57	–	.27	2.57	3.12	3.27	3.57	4.29	4.44	4.59	5.14	5.29	5.44	5.59	6.14	6.25
Hataitai Village (near 23)	–	–	.02	–	.32	3.02	3.17	3.32	4.02	4.34	4.49	5.04	5.19	5.34	5.49	6.04	6.19	6.30
Kilbirnie Shops – Stop C	–	–	.10	–	.40	3.10	3.25	3.40	4.10	4.42	4.57	5.07	5.26	5.41	5.56	6.11	6.26	6.37
Airport Retail Park	–	–	.13	–	.43	3.13	3.28	3.43	4.13	4.45	–	5.10	–	5.44	–	6.14	–	6.40
	TC	TC	TC	TC	TC	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM

To Kilbirnie continued	At these minutes past the hour 7pm until 11pm			PM
Wilton – Surrey Street	.15	.45	11.15	
Wadestown Shops (near 98)	.23	.53	11.23	
Molesworth Street – New World	–	–	–	
Wellington Station – Stop C	.30	.00	11.30	
Courtenay Place – Blair Street	.37	.07	11.37	
Roseneath Shops	.44	.14	11.44	
Hataitai Village (near 23)	.49	.19	11.49	
Kilbirnie Shops – Stop C	.54	.24	11.54	
Airport Retail Park	–	–	–	



SPECIAL ROUTE INFORMATION

vBR via Basin Reserve, not Roseneath and Hataitai.

TC Terminates at Courtenay Place.

CM Departs Cardinal McKeefry School at 3.15pm on school days.

* A Sunday timetable applies on all public holidays except when Waitangi Day and ANZAC Day fall on a Saturday when a Saturday timetable will operate.

14

TO WILTON MONDAY TO FRIDAY



SPECIAL ROUTE INFORMATION

CK Continues to Cardinal McKeefry School on school days.

MS Molesworth Street Shuttle.

TMS Terminates at Molesworth Street.

LQ Departs from Lambton Quay – Cable Car 5.25pm.

AFTER MIDNIGHT
Departs early Saturday and Sunday mornings.

ROUTE N2:
City to Hataitai – Miramar – Strathmore – Seatoun.

On request to Hataitai (Hataitai Rd, Arawa Rd and Waipapa Rd), Strathmore and Seatoun.

Departs Manners Street (Burger King) at 1am, 2am & 3am then via Courtenay Place.

ROUTE N4:
City to Wadestown – Khandallah.

On request to Wilton, Calcutta St – Waru St – Punjab St and Broadmeadows.

	AM																PM																
Airport Retail Park (Opposite)	–	–	6.48	–	7.18	–	7.48	–	8.18	–	8.48	9.18	9.48	10.18	10.48	11.18	–	11.48	–	12.18	–	–	12.48										
Kilbirnie Shops – Stop B	6.20	–	6.50	–	7.20	7.35	7.50	–	8.20	8.35	8.50	9.20	9.50	10.20	10.50	11.20	–	11.50	–	12.20	–	–	12.50										
Hataitai Village (near 22)	6.25	6.48	6.55	7.15	7.28	7.43	7.58	8.15	8.28	8.43	8.58	9.27	9.57	10.25	10.55	11.27	–	11.57	–	12.27	–	–	12.57										
Roseneath Shops (Opposite)	6.30	6.53	7.00	7.20	7.34	7.49	8.04	8.21	8.34	8.49	9.04	9.32	10.02	10.30	11.00	11.32	–	12.02	–	12.32	–	–	1.02										
Courtenay Place – Paramount	6.40	7.03	7.10	7.30	7.44	7.59	8.14	8.31	8.44	8.59	9.14	9.42	10.12	10.40	11.10	11.43	12.03	12.13	12.23	12.43	12.48	1.08	1.13										
Molesworth Street – New World	6.50	7.13	7.20	7.43	7.57	8.12	8.27	8.44	8.57	9.12	9.27	9.55	10.25	10.53	11.23	11.56	12.16	12.26	12.36	12.56	1.01	1.21	1.26										
Wadestown Shops (near 109)	6.57	7.20	7.27	7.50	8.04	–	8.34	–	9.04	–	9.34	10.02	10.32	11.00	11.30	12.03	–	12.33	–	1.03	–	–	1.33										
Wilton – Surrey Street	7.05	7.28	7.35	7.58	8.12	–	8.42	–	9.12	–	9.42	10.10	10.40	11.08	11.38	12.11	–	12.41	–	1.11	–	–	1.41										
					TMS				CK	TMS				TMS				MS				MS				MS				MS			

To Wilton continued				PM																				
Airport Retail Park (Opposite)	–	1.18	–	–	1.48	2.18	2.48	3.18	–	3.48	–	–	4.18	–	–	–	4.48	–	–	5.18	–	5.58	6.28	
Kilbirnie Shops – Stop B	–	1.20	–	–	1.50	2.20	2.50	3.20	–	3.50	–	–	4.20	–	–	–	4.50	–	–	5.20	–	6.00	6.30	
Hataitai Village (near 22)	–	1.27	–	–	1.57	2.25	2.55	3.25	–	3.56	–	–	4.26	–	–	–	4.56	–	–	5.26	–	6.05	6.35	
Roseneath Shops (Opposite)	–	1.32	–	–	2.02	2.32	3.02	3.32	–	4.03	–	–	4.33	–	–	–	5.03	–	–	5.33	–	6.10	6.40	
Courtenay Place – Paramount	1.28	1.43	1.48	2.08	2.13	2.41	3.11	3.41	3.52	4.12	4.22	4.32	4.42	4.52	4.57	5.02	5.12	–	5.22	5.42	5.52	6.17	6.47	
Molesworth Street – New World	1.41	1.56	2.01	2.21	2.26	2.54	3.24	3.54	4.07	4.27	4.37	4.47	4.57	5.07	5.12	5.17	5.27	5.32	5.37	5.57	6.07	6.32	6.54	
Wadestown Shops (near 109)	–	2.03	–	–	2.33	3.01	3.31	4.01	4.14	4.34	4.45	4.55	5.05	5.15	5.20	5.25	5.35	5.40	5.45	6.05	6.14	6.39	7.01	
Wilton – Surrey Street	–	2.11	–	–	2.41	3.09	3.39	4.09	4.22	4.42	4.53	5.03	5.13	5.23	5.28	5.33	5.43	5.48	5.53	6.13	6.22	6.47	7.09	
	MS				MS				MS				LQ											

To Wilton continued				At these minutes past the hour 8pm until 11pm			
	PM						
Airport Retail Park (Opposite)	–	6.58	–	–	–	–	–
Kilbirnie Shops – Stop B	–	7.00	7.30	.00	.30	11.00	11.30
Hataitai Village (near 22)	–	7.05	7.35	.05	.35	11.05	11.35
Roseneath Shops (Opposite)	–	7.10	7.40	.10	.40	11.10	11.40
Courtenay Place – Paramount	6.37	7.17	7.47	.17	.47	11.17	11.47
Molesworth Street – New World	6.50	7.24	7.54	.24	.54	11.24	11.54
Wadestown Shops (near 109)	6.57	7.31	8.01	.31	.01	11.31	12.01
Wilton – Surrey Street	7.05	7.39	8.09	.39	.09	11.39	12.09

Absolutely Positively Wellington City Council

Me Heke Ki Pōneke

To Wellington

Monday to Friday*

- via Hataitai Village
- Continues to Victoria University arriving at 9.15am
- No service on weekends and Public Holidays

Miramar Avenue – Holy Cross Church
Mt Crawford
Kilbirnie Shops – Rongotai Road
Greta Point (Bella Vista)
Courtenay Place
Wellington Station – Stop D

AM										PM									
6.10	6.40	7.10	7.25	7.40	7.55	8.10	9.10	10.10	11.10	12.10	1.10	2.10	3.10	4.10	4.40	5.10	5.40	6.05	
6.20	6.50	7.20	7.35	7.50	8.05	8.20	9.20	10.20	11.20	12.20	1.20	2.20	3.20	4.20	4.50	5.20	5.50	6.15	
6.30	7.00	7.30	7.45	8.00	8.15	8.30	9.30	10.30	11.30	12.30	1.30	2.30	3.30	4.30	5.00	5.30	6.00	6.25	
6.35	7.05	7.35	–	8.05	–	8.35	9.35	10.35	11.35	12.35	1.35	2.35	3.35	4.35	5.05	5.35	6.05	6.30	
6.44	7.14	7.44	7.55	8.19	8.30	8.49	9.49	10.49	11.49	12.49	1.49	2.49	3.45	4.49	5.19	5.49	6.19	6.44	
6.55	7.25	8.00	8.11	8.35	8.46	9.05	10.01	11.01	12.01	1.01	2.01	3.01	4.01	5.05	5.35	6.05	6.31	6.56	
H										H									
H										V									

To Miramar

Monday to Friday*

- No service on weekends and Public Holidays

Wellington Station – Stop B
Waitangi Park
Greta Point (NIWA)
Kilbirnie Shops – Bay Road
Mt Crawford
Miramar Avenue – Holy Cross Church

AM										PM									
7.40	8.10	8.25	8.40	9.20	10.20	11.20	12.20	1.20	2.20	3.20	4.12	4.42	4.57	5.12	5.27	5.43	6.12	6.42	7.12
7.48	8.18	8.33	8.48	9.28	10.28	11.28	12.28	1.28	2.28	3.28	4.20	4.50	5.07	5.22	5.37	5.53	6.20	6.50	7.20
7.56	8.26	8.41	8.56	9.36	10.36	11.36	12.36	1.36	2.36	3.36	4.28	4.58	5.15	5.30	5.45	6.01	6.28	6.58	7.28
8.03	8.33	8.48	9.03	9.43	10.43	11.43	12.43	1.43	2.43	3.43	4.35	5.05	5.20	5.35	5.50	6.06	6.35	7.05	7.35
–	8.42	–	9.12	9.52	10.52	11.52	12.52	1.52	2.52	3.52	4.44	5.14	5.29	5.44	5.59	6.15	6.44	7.14	7.44
–	8.53	–	9.23	10.03	11.03	12.03	1.03	2.03	3.03	4.03	4.55	5.25	5.40	5.55	6.10	6.26	6.55	7.25	7.55

For information on fares see the Metlink Fares leaflet or contact Metlink

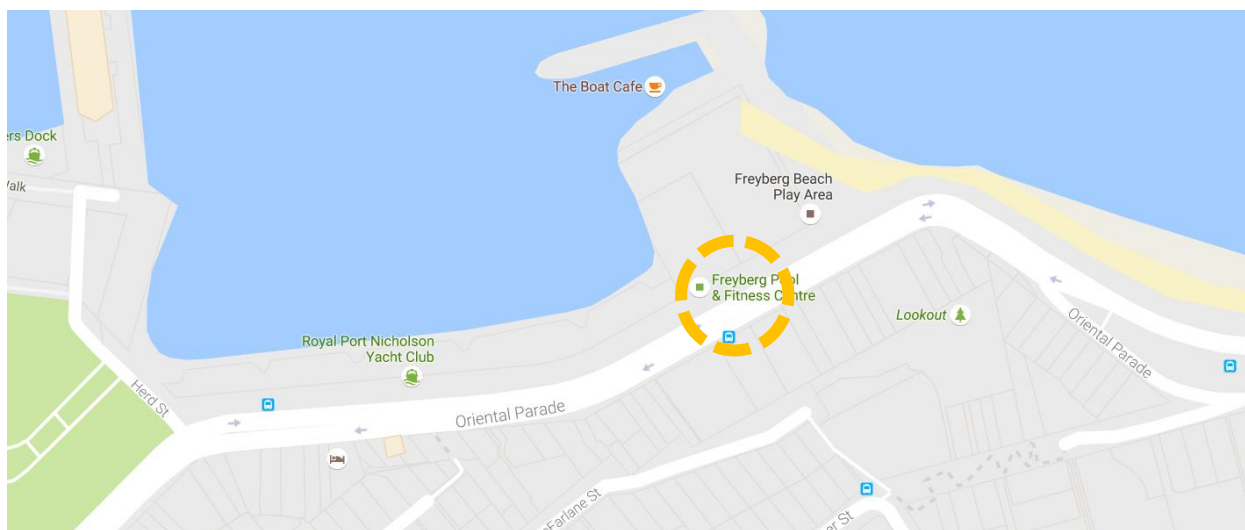


24 Miramar Heights via Evans Bay

Miramar, Mt Crawford, Maupuia,
Kilbirnie, Evans Bay, Greta Point,
Courtenay Place, Wellington Station

Appendix D. Vehicle Speed and Classification Data

Location: 250M East of Herd St, Outside #144 Oriental Parade. Survey period: 11/08/2016 – 18/08/2016.



Street Name:		Oriental Pde	
Site ID:		1147	
Location:		250M East of Herd St, Outside #144 .	
East Bound		bound traffic, travelling towards:	Oriental Tce
West Bound		bound traffic, travelling towards:	Herd St
Start Date:		11/08/2016	End Date: 18/08/2016
Speed		Summary	
		Eastbound	Westbound Both Directions
5 day 85th Percentile Speed		45	46 45
7 day 85th Percentile Speed		44	45 45
5 day Mean Speed		37	39 38
7 day Mean Speed		36	38 37
5 day 3 - 4pm 85th Percentile Speed		43	42 43

5 Day Eastbound Speed Count Summary

Hour End	Speed Bin												Total
	0 - 15	15 - 30	30 - 40	40 - 50	50 - 60	60 - 70	70 - 80	80 - 90	90 - 100	100 - 110	110 - 120	120 - 999	
0 - 1	0	1	7	24	12	2	0	0	0	0	0	0	
1 - 2	0	1	2	5	4	1	0	0	0	0	0	0	
2 - 3	0	0	1	5	2	1	0	0	0	0	0	0	
3 - 4	1	1	2	12	8	1	0	0	0	0	0	0	
4 - 5	0	2	2	23	16	1	0	0	0	0	0	0	
5 - 6	0	3	8	29	20	1	0	0	0	0	0	0	
6 - 7	1	11	44	114	21	1	0	0	0	0	0	0	
7 - 8	4	51	162	275	21	0	0	0	0	0	0	0	
8 - 9	8	101	257	232	12	0	0	1	0	0	0	0	
9 - 10	4	54	228	234	14	0	0	0	0	0	0	0	
10 - 11	2	37	212	216	19	0	0	0	0	0	0	0	
11 - 12	5	59	217	219	13	1	0	0	0	0	0	0	
12 - 13	6	96	293	206	6	0	0	0	0	0	0	0	
13 - 14	5	108	295	188	8	1	0	0	0	0	0	0	
14 - 15	4	76	295	243	9	0	0	0	0	0	0	0	
15 - 16	9	121	320	209	8	0	0	0	0	0	0	0	
16 - 17	21	203	378	223	6	0	0	0	0	0	0	0	
17 - 18	28	372	458	130	2	0	0	0	0	0	0	0	
18 - 19	8	141	320	138	4	0	0	0	0	0	0	0	
19 - 20	1	41	171	132	9	0	0	0	0	0	0	0	
20 - 21	1	16	100	129	19	1	0	0	0	0	0	0	
21 - 22	1	10	66	146	31	2	0	0	0	0	0	0	
22 - 23	0	5	32	97	27	1	0	0	0	0	0	0	
23 - 24	0	2	16	60	19	2	0	0	0	0	0	0	
Speed To	111	1514	3884	3288	310	18	3	2	0	0	1	1	9131
	1.22%	16.58%	42.53%	36.01%	3.40%	0.19%	0.03%	0.02%	0.00%	0.00%	0.01%	0.01%	100%

5 Day Westbound Speed Count Summary

Hour End	Speed Bin												Total
	0 - 15	15 - 30	30 - 40	40 - 50	50 - 60	60 - 70	70 - 80	80 - 90	90 - 100	100 - 110	110 - 120	120 - 999	
0 - 1	0	2	7	40	15	0	0	0	0	0	0	0	
1 - 2	0	1	4	19	7	1	0	0	0	0	0	0	
2 - 3	0	0	2	7	2	0	0	0	0	0	0	0	
3 - 4	1	0	1	3	3	0	0	0	0	0	0	0	
4 - 5	0	0	2	10	6	1	0	0	0	0	0	0	
5 - 6	0	3	4	25	9	1	0	0	0	0	0	0	
6 - 7	0	14	25	77	17	2	0	0	0	0	0	0	
7 - 8	0	42	199	301	22	0	0	0	0	0	0	0	
8 - 9	57	256	490	238	7	0	0	0	0	0	0	0	
9 - 10	1	23	185	305	10	0	0	0	0	0	0	0	
10 - 11	1	17	155	220	10	1	0	0	0	0	0	0	
11 - 12	2	27	177	260	10	0	0	0	0	0	0	0	
12 - 13	1	35	220	234	9	0	0	0	0	0	0	0	
13 - 14	2	31	236	230	6	0	0	0	0	0	0	0	
14 - 15	0	27	225	248	12	0	0	0	0	0	0	0	
15 - 16	50	55	270	271	5	0	0	0	0	0	0	0	
16 - 17	96	103	253	241	6	0	0	0	0	0	0	0	
17 - 18	163	99	197	147	4	1	0	0	0	0	0	0	
18 - 19	1	30	236	193	5	0	0	0	0	0	0	0	
19 - 20	1	11	117	155	7	0	0	0	0	0	0	0	
20 - 21	0	5	79	114	18	0	0	0	0	0	0	0	
21 - 22	1	5	42	150	27	0	0	0	0	0	0	0	
22 - 23	0	4	33	82	19	1	0	0	0	0	0	0	
23 - 24	0	3	19	42	11	2	0	0	0	0	0	0	
Speed To	377	793	3180	3614	246	12	2	1	0	0	0	1	8226
	4.59%	9.64%	38.66%	43.93%	3.00%	0.15%	0.02%	0.01%	0.00%	0.00%	0.00%	0.01%	100%

West Bound bound traffic, travelling t Herd St

Start Date: 11/08/2016

End Date: 18/08/2016

Recorded data East

Vehicle Class 1 to 14 bins as per NZTA 2011 Vehicle Classification Scheme															Un	24 Hour
Date	Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
08/11/16	Thu	207	8584	17	575	61	13	12	5	10	7	0	2	2	15	9510
08/12/16	Fri	95	8195	12	512	48	16	7	8	8	0	0	2	0	12	8915
08/13/16	Sat	25	6337	7	778	16	4	3	1	8	1	0	1	1	9	7191
08/14/16	Sun	148	8437	9	238	19	14	6	5	3	2	0	0	1	30	8912
08/15/16	Mon	196	7438	16	497	40	18	14	5	12	0	1	5	0	21	8263
08/16/16	Tue	248	8482	14	487	53	32	18	5	12	4	1	4	2	27	9389
08/17/16	Wed	239	8745	12	443	55	15	10	12	13	6	0	0	4	24	9578
TOTAL		1158	56218	87	3530	292	112	70	41	66	20	2	14	10	138	61758
SUMMARY																
5 Day Ave		197	8289	14	503	51	19	12	7	11	3	0	3	2	20	9131
7 Day Ave		165	8031	12	504	42	16	10	6	9	3	0	2	1	20	8823
% of Total		1.88%	91.03%	0.14%	5.72%	0.47%	0.18%	0.11%	0.07%	0.11%	0.03%	0.00%	0.02%	0.02%	0.22%	100.00%

Recorded data West

Vehicle Class 1 to 14 bins as per NZTA 2011 Vehicle Classification Scheme															Un	24 Hour
Date	Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
08/11/16	Thu	253	7844	11	524	57	64	12	10	9	6	0	1	4	68	8863
08/12/16	Fri	163	7432	16	428	50	26	10	6	6	0	2	3	2	26	8170
08/13/16	Sat	35	5270	7	1156	33	21	2	0	4	2	0	0	4	27	6561
08/14/16	Sun	148	7470	11	228	22	23	13	5	5	0	1	0	2	46	7974
08/15/16	Mon	211	6306	6	442	49	16	16	4	9	3	0	5	1	36	7104
08/16/16	Tue	284	7523	10	408	43	15	22	6	12	1	1	3	3	30	8361
08/17/16	Wed	277	7799	20	364	65	26	19	14	12	4	1	1	2	30	8634
TOTAL		1371	49644	81	3550	319	191	94	45	57	16	5	13	18	263	55667
SUMMARY																
5 Day Ave		238	7381	13	433	53	29	16	8	10	3	1	3	2	38	8226
7 Day Ave		196	7092	12	507	46	27	13	6	8	2	1	2	3	38	7952
% of Total		2.46%	89.18%	0.15%	6.38%	0.57%	0.34%	0.17%	0.08%	0.10%	0.03%	0.01%	0.02%	0.03%	0.47%	100.00%

Appendix E. Road Safety Data

Combined Crash List Detail report - Run on: 7 Nov 2016

Injury and non-injury crashes

Page 1 of 2

Crash List: Oriental Parade (Herd St to Freyberg)2006-mid 2016

Overall Crash Statistics

Crash Severity	Number	%	Social cost (\$m)
Fatal	0	0	0
Serious	3	7	2.5
Minor Injury	16	35	1.4
Non-injury	27	59	0.63
	46	100	4.53

Crash Numbers

Year	Fatal	Serious	Minor	Non-inj
2011	0	1	2	1
2012	0	0	1	2
2013	0	0	3	0
2014	0	1	3	1
2015	0	0	0	6
TOTAL	0	2	9	10
Percent	0	10	43	48

Note: Last 5 years of crashes shown

Overall Casualty Statistics

Injury Severity	Number	% all casualties
Death	0	0
Serious Injury	3	16
Minor Injury	16	84
	19	100

Casualty Numbers

Year	Fatal	Serious	Minor
2011	0	1	2
2012	0	0	1
2013	0	0	3
2014	0	1	3
2015	0	0	0
TOTAL	0	2	9
Percent	0	18	82

Note: Last 5 years of casualties shown

Crash Type and Cause Statistics

Crash Type	All crashes	% All crashes
Overtaking Crashes	6	13
Straight Road Lost Control/Head On	0	0
Bend - Lost Control/Head On	1	2
Rear End/Obstruction	30	65
Crossing/Turning	7	15
Pedestrian Crashes	2	4
Miscellaneous Crashes	0	0
TOTAL	46	100

Crash factors (*)	All crashes	% All crashes
Alcohol	2	4
Too fast	1	2
Failed Give way/Stop	9	20
Failed Keep Left	2	4
Overtaking	6	13
Incorrect Lane/posn	6	13
Poor handling	2	4
Poor Observation	28	61
Poor judgement	8	17
Fatigue	2	4
Disabled/old/ill	1	2
Vehicle factors	2	4
Road factors	2	4
Other	4	9
TOTAL	75	161

Crashes with a:

Driver factor	67	144
Environmental factor	2	4

(*) factors are counted once against a crash - ie two fatigued drivers count as one fatigue crash factor.

Note: Driver/vehicle factors are not available for non-injury crashes for Northland, Auckland, Waikato and Bay of Plenty before 2007.

This will influence numbers and percentages.

Note: % represents the % of crashes in which the cause factor appears

Number of parties in crash	All crashes	% All crashes
Single party	1	2
Multiple party	45	98
..... TOTAL	46	100

Driver and Vehicle Statistics

Note: Driver information is not computerised for non-injury crashes

Drivers at fault or part fault in injury crashes

Age	Male	%	Female	%	Total	%
15-19	0	0	0	0	0	0
20-24	1	8	3	75	4	25
25-29	2	17	0	0	2	13
30-39	2	17	0	0	2	13
40-49	2	17	0	0	2	13
50-59	4	33	1	25	5	31
60-69	0	0	0	0	0	0
70+	1	8	0	0	1	6
TOTAL	12	100	4	100	16	100

Drivers at fault or part fault in injury crashes

Licence	Male	Female	Total	%
Full	12	2	14	78
Learner	0	0	0	0
Restricted	0	0	0	0
Never licensed	0	0	0	0
Disqualified	0	0	0	0
Overseas	0	0	0	0
Expired	0	0	0	0
Other/Unknown	1	3	4	22
TOTAL	13	5	18	100

Vehicles involved in injury crashes

	No. of vehicles	% Injury crashes
SUV	3	16
Bus	1	5
Car/Stn Wagon	16	88
Motor Cycle	1	5
Moped	1	5
Bicycle	12	63
Van Or Utility	2	11
TOTAL	36	173

Note: % represents the % of injury crashes in which the vehicle appears

Combined Crash List Detail report - Run on: 7 Nov 2016

Injury and non-injury crashes

Page 2 of 2

Crash List: Oriental Parade (Herd St to Freyberg)2006-mid 2016

Road Environment Statistics

Road Type	Local road	%	State highway	%	Total	%
Urban	46	100	0	0	46	100
Open Road	0	0	0	0	0	0
TOTAL	46	100	0	0	46	100

Conditions	Injury	Non-injury	Total	%
Light/overcast	16	22	38	83
Dark/twilight	3	5	8	17
TOTAL	19	27	46	100

Conditions	Injury	Non-injury	Total	%
Dry	18	23	41	89
Wet	1	4	5	11
Ice/snow	0	0	0	0
TOTAL	19	27	46	100

Intersection/mid-block	All crashes	% All crashes
Intersection	6	13
Mdblock	40	87
TOTAL	46	100

Objects Struck	Injury crashes	%	Non-injury crashes	%
Crashes w/obj.struck	0	0	3	11
Object Struck	Injury crashes	%	Non-injury crashes	%
Fence	0	0	1	4
Traffic Island	0	0	1	4
Parked Vehicle	0	0	2	7

TOTAL 0 4

Note: % represents the % of crashes in which the object is struck

Time Period Statistics

Day/Period	All crashes	% All crashes
Weekday	28	61
Weekend	18	39
TOTAL	46	100

Day/Period	0000-0259	0300-0559	0600-0859	0900-1159	1200-1459	1500-1759	1800-2059	2100-2400	Total
Weekday	0	0	7	3	9	3	4	2	28
Weekend	2	0	3	3	5	3	2	0	18
TOTAL	2	0	10	6	14	6	6	2	46

Note: Weekend runs from 6 pm on Friday to 6 am on Monday

Day/Period	0000-0259	0300-0559	0600-0859	0900-1159	1200-1459	1500-1759	1800-2059	2100-2400	Total
Mon	0	0	1	0	0	1	1	0	3
Tue	0	0	1	0	4	1	0	1	7
Wed	0	0	3	2	1	0	2	0	8
Thu	0	0	1	1	0	1	0	0	3
Fri	0	0	1	0	4	0	1	1	7
Sat	1	0	3	2	1	3	0	0	10
Sun	1	0	0	1	4	0	2	0	8
TOTAL	2	0	10	6	14	6	6	2	46

Month	Injury	%	Non-injury	%	Total	%
Jan	2	11	1	4	3	7
Feb	2	11	4	15	6	13
Mar	2	11	4	15	6	13
Apr	1	5	5	19	6	13
May	0	0	1	4	1	2
Jun	2	11	2	7	4	9
Jul	1	5	3	11	4	9
Aug	3	16	1	4	4	9
Sep	3	16	0	0	3	7
Oct	0	0	2	7	2	4
Nov	3	16	0	0	3	7
Dec	0	0	4	15	4	9
TOTAL	19	100	27	100	46	100

Oriental Parade (Herd St to Freyberg) 2006-mid 2016
Plain English report, run on 07-Nov-2016 Page 1

First Street	Second street or landmark	Crash Number	Date DD/MM/YYYY	Day	Time DDD HHMM	Description of Events	Crash Factors (ENV = Environmental factors)	Road	Natural Light	Weather	Junction	Cntrl	Tot Inj F S M A E I T R N
Oriental Parade	I Herd St	2613485	11/11/2006	Sat	1645	CAR1 EBD on ORIENTAL PARADE hit CAR2 turning right onto ORIENTAL PARADE from the left	CAR2 Failed to give way At a priority traffic control, misjudged speed of own vehicle	Dry	Bright	Fine	T Type Junction	Give Way Sign	1
Oriental Parade	300W Oriental Terrace	2655499	18/06/2006	Sun	0004	CAR1 WBD on ORIENTAL PARADE hit Parked Vehicle while manoeuvring	CAR1 alcohol suspected, Did not check / notice another party behind	Dry	Dark	Fine	Unknown	Nil	
Oriental Parade	30E Herd St	2656376	19/07/2006	Wed	1430	CAR1 EBD on ORIENTAL PARADE hit CAR2 manoeuvring	CAR1 misjudged intentions of another party CAR2 Did not check / notice another party behind	Wet	Overcast	Light Rain	Unknown	Nil	
Oriental Parade	50N Herd St	2656931	31/12/2006	Sun	2020	CAR1 NBD on ORIENTAL PARADE hit CAR2 parking/unparking	CAR1 Did not check / notice another party behind	Wet	Twilight	Light Rain	Unknown	Nil	
Oriental Parade	I Herd St	2713177	04/03/2007	Sun	1200	CYCLIST1 (Age 57) NBD on ORIENTAL PARADE lost control turning right on right hand bend	CYCLIST1 failed to keep left	Dry	Bright	Fine	T Type Junction	Give Way Sign	1
Oriental Parade	150E Herd St	2713611	28/08/2007	Tue	1340	CAR1 EBD on ORIENTAL PARADE changing lanes to left hit CYCLIST2 (Age 37)	CAR1 misjudged speed of own vehicle ENV: road surface under construction or maintenance	Dry	Overcast	Fine	Unknown	Nil	1
Oriental Parade	30E Herd St	2713958	06/09/2007	Thu	1645	SUV1 EBD on ORIENTAL PARADE overtaking CYCLIST2 (Age 42)	SUV1 intimidating driving, intentional collision	Dry	Bright	Fine	Unknown	Nil	1
Oriental Parade	I Herd St	2750819	14/02/2007	Wed	0845	CAR1 WBD on ORIENTAL PARADE hit TAXI2 merging from the right	TAXI2 failed to give way when waved through by other driver, didnt see/look when visibility obstructed by other vehicles ENV: visibility limited by curve	Dry	Bright	Fine	T Type Junction	Give Way Sign	
Oriental Parade	100E Herd St	2753424	23/04/2007	Mon	0808	CAR1 EBD on ORIENTAL PARADE hit rear end of CAR2 stop/slow for PEDESTRIAN	CAR1 following too closely, attention diverted	Dry	Overcast	Fine	Unknown	Nil	
Oriental Parade	300E Herd St	2756593	12/05/2007	Sat	1630	CAR1 EBD on ORIENTAL PARADE hit rear end of CAR2 stop/slow for queue	CAR1 failed to notice car slowing	Dry	Bright	Fine	Unknown	Nil	
Oriental Parade	230E Cable St	2812294	15/06/2008	Sun	1059	CYCLIST1 (Age 43) EBD on ORIENTAL PARADE overtaking hit CAR2 turning right	CYCLIST1 overtaking vehicle signaling right turn ENV: entering or leaving land use	Dry	Overcast	Fine	Driveway	Nil	1
Oriental Parade	100E Herd St	2813321	25/08/2008	Mon	1915	CAR1 WBD on ORIENTAL PARADE hit PEDESTRIAN2 (Age 24) crossing road from right side	CAR1 failed to give way to a pedestrian, vehicle windows/helmet visors/goggles/glasses/misted dirty/windscreen wipers	Wet	Dark	Light Rain	Unknown	Nil	1
Oriental Parade	220E Herd St	2813487	11/11/2008	Tue	1412	CAR1 WBD on ORIENTAL PARADE hit rear end of CAR2 stop/slow for PEDESTRIAN	CAR1 following too closely CAR2 Suddenly Braked	Dry	Overcast	Fine	Unknown	Nil	1
Oriental Parade	200E Cable St	2853876	15/07/2008	Tue	1321	CAR1 EBD on ORIENTAL PARADE hit rear end of CAR2 stop/slow for queue	CAR1 following too closely, fatigue (drowsy, tired, fell asleep)	Dry	Bright	Fine	Unknown	Nil	
Oriental Parade	360E Herd St	2856410	03/12/2008	Wed	0816	CAR1 NBD on ORIENTAL PARADE hit rear end of CAR2 stop/slow for PEDESTRIAN	CAR1 failed to notice car slowing, attention diverted by cigarette etc, misjudged intentions of another party	Dry	Overcast	Fine	Unknown	Nil	

Oriental Parade (Herd St to Freyberg) 2006-mid 2016

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First Street	Second street or landmark	Crash Number	Date	Day	Time	Description of Events	Crash Factors	Road	Natural Light	Weather	Junction	Cntrl	Tot Inj F S M A E I T P N
Distance			DD/MM/YYYY	DDD	HHMM		(ENV = Environmental factors)						
ORIENTAL PARADE	300E WAKEFIELD ST	2857172	14/12/2008	Sun	1830	CAR1 EBD on ORIENTAL PARADE hit CAR2 angle parking	CAR1 Inappropriate speed, failed to notice car slowing	Dry	Bright	Fine	Unknown	Nil	
ORIENTAL PARADE	10W HERD ST	2950751	19/02/2009	Thu	0901	CAR1 WBD on ORIENTAL PARADE changing lanes to left hit CAR2	CAR1 Did not check / notice another party behind, misjudged speed of own vehicle	Dry	Bright	Fine	T Type Junction	Nil	
ORIENTAL PARADE	80E HERD ST	2951445	11/03/2009	Wed	0915	TAXI1 WBD on ORIENTAL PARADE hit CAR2 manoeuvring	TAXI1 failed to notice car slowing, attention diverted by other traffic	Dry	Overcast	Fine	Unknown	Nil	
ORIENTAL PARADE	220E HERD ST	2951847	18/03/2009	Wed	0842	CAR1 EBD on ORIENTAL PARADE hit VAN2 manoeuvring	CAR1 overtaking on left VAN2 Did not check / notice another party behind	Dry	Bright	Fine	Unknown	Nil	
ORIENTAL PARADE	350E HERD ST	2951963	22/04/2009	Wed	1815	SUV1 WBD on ORIENTAL PARADE sideswiped by CAR2 turning left	SUV1 overtaking on left ENV: entering or leaving private house / farm	Dry	Twilight	Fine	Driveway	Nil	
ORIENTAL PARADE	100E HERD ST	2952468	18/04/2009	Sat	1432	CAR1 EBD on ORIENTAL PARADE hit rear end of CAR2 stop/slow for obstruction	CAR1 following too closely	Dry	Bright	Fine	Unknown	Nil	
ORIENTAL PARADE	200E HERD ST	2953619	20/06/2009	Sat	0803	CAR1 EBD on ORIENTAL PARADE hit CAR2 angle parking	CAR2 Did not check / notice another party behind	Dry	Overcast	Light Rain	Unknown	Nil	
ORIENTAL PARADE	70E HERD ST	201011438	04/03/2010	Thu	0840	MOPED1 WBD on ORIENTAL PARADE hit CAR2 turning into angle park	MOPED1 overtaking on left CAR2 failed to give way when turning to non-turning traffic, failed to give way when waved through by other driver	Dry	Bright	Fine	Unknown	Nil	1
ORIENTAL PARADE	110E HERD ST	201050314	16/01/2010	Sat	0030	CAR1 EBD on ORIENTAL PARADE hit obstruction, CAR1 hit Fence, Traffic Island	CAR1 alcohol test above limit or test refused	Wet	Dark	Heavy Rain	Unknown	Nil	
ORIENTAL PARADE	350E HERD ST	201054789	01/10/2010	Fri	1405	CAR1 SBD on ORIENTAL PARADE turning right hit CAR2 turning right into ORIENTAL PARADE	CAR1 failed to give way at driveway ENV: entering or leaving car parking building / area	Dry	Bright	Fine	Driveway	Nil	
ORIENTAL PARADE	200E HERD ST	201111167	11/01/2011	Tue	1633	CYCLIST1 (Age 27) EBD on ORIENTAL PARADE hit SUV2 angle parking	CYCLIST1 overtaking on left SUV2 Suddenly turned, attention diverted by scenery or persons outside vehicle, Did not check / notice another party behind	Dry	Bright	Fine	Unknown	Nil	1
ORIENTAL PARADE	250E HERD ST	201111310	11/02/2011	Fri	1822	SUV2 turning right hit by oncoming CYCLIST1 (Age 51) SBD on ORIENTAL PARADE	CYCLIST1 Lost control Under Braking, overtaking on left SUV2 failed to give way when waved through by other driver, didnt see/look when visibility obstructed by other vehicles ENV: entering or leaving private house / farm	Dry	Bright	Fine	Driveway	Nil	1
ORIENTAL PARADE	100E HERD ST	201112714	06/09/2011	Tue	2244	CAR1 EBD on ORIENTAL PARADE hit PEDESTRIAN2 (Age 32) crossing road from right side	CAR1 failed to give way to a pedestrian, misjudged intentions of another party, fatigue due to lack of sleep	Dry	Dark	Fine	Unknown	Nil	1
ORIENTAL PARADE	100E HERD ST	201150544	21/02/2011	Mon	1615	CAR1 EBD on ORIENTAL PARADE hit rear end of SUV2 stop/slow for queue	CAR1 misjudged speed of own vehicle, impaired ability due to old age	Dry	Bright	Fine	Unknown	Nil	

Oriental Parade (Herd St to Freyberg) 2006-mid 2016
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First Street	Second street or landmark	Crash Number	Date DD/MM/YYYY	Day	Time HHMM	Description of Events	Crash Factors (ENV = Environmental factors)	Road	Natural Light	Weather	Junction	Cntrl	Tot Inj F S M A E I T R N
	Distance [F]												
ORIENTAL PARADE	170E HERD ST	201212344	29/07/2012	Sun	1420	CYCLIST1 (Age 55) EBD on ORIENTAL PARADE hit CAR2 U-turning from same direction of travel	CAR2 Did not check / notice another party behind	Dry	Bright	Fine	Unknown	Nil	1
ORIENTAL PARADE	350E HERD ST	201251438	20/04/2012	Fri	1315	CAR1 EBD on ORIENTAL PARADE hit rear end of CAR2 stop/slow for queue	CAR1 failed to notice car slowing, attention diverted by scenery or persons outside vehicle	Dry	Bright	Fine	Unknown	Nil	
ORIENTAL PARADE	270E HERD ST	201254058	26/10/2012	Fri	1449	VAN1 EBD on ORIENTAL PARADE hit SUV2 U-turning from same direction of travel	SUV2 Did not check / notice another party behind	Dry	Bright	Fine	Unknown	Nil	
ORIENTAL PARADE	250E HERD ST	201311090	05/01/2013	Sat	1127	CYCLIST1 (Age 51) EBD on ORIENTAL PARADE hit CAR2 angle parking	CAR2 Did not check / notice another party behind, another vehicle	Dry	Bright	Fine	Unknown	Nil	1
ORIENTAL PARADE	300E HERD ST	201312458	08/06/2013	Sat	0820	VAN1 WBD on ORIENTAL PARADE overtaking CYCLIST2 (Age 52)	VAN1 failed to keep left	Dry	Bright	Fine	Unknown	Nil	1
ORIENTAL PARADE	50E HERD ST	201312459	16/08/2013	Fri	0630	CAR2 turning right hit by oncoming PEDESTRIAN1 EBD on ORIENTAL PARADE	CAR2 failed to give way when turning to non-turning traffic ENV: entering or leaving other commercial	Dry	Dark	Fine	Driveway	Nil	1
ORIENTAL PARADE	50E HERD ST	201411551	25/02/2014	Tue	0859	CYCLIST1 (Age 30) WBD on ORIENTAL PARADE hit CAR2 U-turning from same direction of travel	CAR2 Did not check / notice another party behind	Dry	Bright	Fine	Unknown	Nil	1
ORIENTAL PARADE	I HERD ST	201413156	12/04/2014	Sat	0814	BUS1 NBD on ORIENTAL PARADE hit rear of CYCLIST2 (Age 27) turning right from left side	CYCLIST2 Turned from incorrect position on road, Did not check / notice another party behind ENV: entering or leaving private house / farm	Dry	Overcast	Fine	Driveway	Give Way Sign	1
ORIENTAL PARADE	200E HERD ST	201415878	17/09/2014	Wed	1114	MOTOR CYCLE1 EBD on ORIENTAL PARADE hit CAR2 turning right onto ORIENTAL PARADE from the left	CAR2 Failed to give way At a priority traffic control ENV: entering or leaving other commercial	Dry	Bright	Fine	Driveway	Stop Sign	1
ORIENTAL PARADE	100E HERD ST	201417866	26/11/2014	Wed	1804	CYCLIST1 (Age 33) EBD on ORIENTAL PARADE hit VAN2 angle parking	VAN2 inattentive	Dry	Bright	Fine	Unknown	N/A	1
ORIENTAL PARADE	180E HERD ST	201434454	11/04/2014	Fri	2320	CAR1 WBD on ORIENTAL PARADE hit parked veh, CAR1 hit Parked Vehicle	CAR1 alcohol test below limit, attention diverted by cigarette etc	Dry	Dark	Fine	Unknown	N/A	
ORIENTAL PARADE	270E HERD ST	201530944	14/02/2015	Sat	1145	CAR1 WBD on ORIENTAL PARADE hit CYCLIST2 manoeuvring	CYCLIST2 Driving or Riding in pedestrian space, inattentive ENV: entering or leaving other commercial	Dry	Overcast	Fine	Driveway	Nil	
ORIENTAL PARADE	200E HERD ST	201531587	14/03/2015	Sat	1720	CAR1 WBD on ORIENTAL PARADE hit CAR2 parking/unparking	CAR2 Did not check / notice another party behind, blind spot	Dry	Overcast	Fine	Unknown	Nil	
ORIENTAL PARADE	300E HERD ST	201535527	08/03/2015	Sun	1255	CAR1 EBD on ORIENTAL PARADE hit rear end of CAR2 stop/slow for queue	CAR1 failed to notice car slowing, attention diverted by other traffic	Dry	Bright	Fine	Unknown	Nil	
ORIENTAL PARADE	I HERD ST	201543611	21/07/2015	Tue	1300	CAR1 WBD on ORIENTAL PARADE hit CAR2 manoeuvring	CAR1 emotionally upset/road rage, intentional collision	Dry	Bright	Fine	T Type Junction	Nil	
ORIENTAL PARADE	50E HERD ST	201545667	30/08/2015	Sun	1405	CAR1 WBD on ORIENTAL PARADE hit SUV2 U-turning from same direction of travel	SUV2 Failed to signal in time, Did not check / notice another party behind	Dry	Bright	Fine	Unknown	N/A	
ORIENTAL PARADE	200E HERD ST	201550951	18/12/2015	Fri	1240	VAN1 EBD on ORIENTAL PARADE hit rear end of CAR2 stop/slow for PEDESTRIAN	VAN1 inattentive	Wet	Overcast	Light Rain	Unknown	N/A	

