Parking Management Plan: The Parade, Island Bay

Absolutely Positively
Wellington City Council
Me Heke Ki Pōneke

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Parking Management Plan: The Parade, Island Bay

Quality Assurance Information

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1. Introduction

The purpose of this report is to develop a Parking Management Plan (PMP) as part of the Island Bay transitional cycleway project which based on the current design plans will require the removal of 80 vehicle parks from The Parade. This analysis involves a survey along The Parade and the surrounding streets. For each section, the report:

- Examines current parking demand and the main drivers of on-street parking demand;
- Considers the impact of the upgrades to the Island Bay cycleway with regards to the impact on car park availability and the ability of users to park and access local destinations; and
- Proposes options for mitigating the impacts of parking loss such as changing parking restrictions, introducing new parking restrictions, or directing motorists to alternative parking locations nearby.

Island Bay is a residential suburb on the south coast of Wellington City which has on-street parking on most streets, along with a major cycleway along The Parade. The Parade is classified as an Arterial Road and hosts the Island Bay town centre including retail activities, a supermarket, a cinema and cafes. Traffic volumes along The Parade are typically 11,000 vehicles per day. The speed limit throughout the central area of The Parade is 30 km/h, and the surrounding streets all have a 50 km/h speed limit.

The study area for the PMP is shown in Figure 3-1 of this report.

1.1 Wellington Parking Policy 2020

Wellington adopted an updated Parking Policy in August 2020. The parking policy sets the objectives and principles for the management of Council-controlled on-street and off-street parking, and how parking supports achieving the vision for Wellington.

The Council's vision for Wellington is built around people and communities. The future city will be a place where people and goods can easily move to and through the city, based on a transport system that can accommodate moving more people using fewer vehicles. The city has also set a goal to be a zero-carbon capital by 2050 and transport will play a key role in achieving this goal.

The policy acknowledges that Wellington needs a more efficient transport system that makes better use of limited road space. This means moving more people using fewer vehicles; using public transport more; more people walking and on bikes, and fewer people driving and parking in busy areas. Achieving this will mean removing some on-street parking spaces on key transport routes, reallocating on-street road space to support active and public transport, and re-prioritising the remaining on-street space.

The policy establishes a parking space hierarchy for different parts of the city to ensure that limited parking supply is prioritised appropriately. The parking space hierarchy describes which types of parking have the highest and lowest priorities in different areas. It also sets out the priority level for that type of parking space, not the number of spaces. The hierarchy for the central city and key transport routes is applied in the Parking Policy is shown in Table 1-1. This hierarchy is used to prioritise the allocation of remaining on-street space available for parking on the Island Bay cycleway route to be upgraded.

Table 1-1 Parking space hierarchy for central city and key transport routes

Priority	Key transport routes	Central city
Highest priority	Safe and efficient movement of people and goods	Safe and efficient movement of people and goods
High priority	Bus stops	Bus stops Mobility parking Urban design features Bicycle/micromobility parking Loading zone Short-stay (car and motorcycle) Car share
Medium priority		Taxi stands, Small Public Service Vehicle (SPSV) Electric vehicle charging
Low priority	Urban design features Mobility Loading zones Bicycle/micro-mobility Car share Electric-vehicle charging Short-stay (car & motorcycle) Taxi stands, Small Public Service Vehicle (SPSV) parking Coach and bus (short stay)	Coach and bus (short stay) Coach and bus (long stay)
Lower priority	Residents Commuter (car & motorcycle) Coach and bus (long stay)	Residents Commuter (car & motorcycle)
Lowest priority	Long stay parking of private non-motorised vehicles	Long stay parking of private non-motorised vehicles

1.2 Measuring parking impact

This report considers the impact of the proposed cycleway upgrades on the number of car parks available and the ability of users to access local destinations using these parks, both before and after mitigation.

A six-point scale is used to assess the level of impact, as outlined in Table 1-2

Table 1-2 Level of impact scales for parking removal

Level of Impact	Definition
Very High	Removal of parking spaces has a very high impact on the ability of users to find a parking space and visit the area. Alternative parking spaces of the same type are not available within walking distance.
High	Removal of parking spaces has a high impact on the ability of users to find a parking space and visit the area. Alternative parking spaces of the same type are available within a 10-minute walking distance.
Moderate	Removal of parking spaces has a moderate impact on the ability of users to find a parking space and visit the area. Alternative parking spaces of the same type are available within a 5-minute walking distance.
Low	Removal of parking spaces has a low impact on the ability of users to find a parking space and visit the area. Alternative parking spaces of the same type are available within a 3-minute walking distance.
Very low	Removal of parking spaces has a very low impact on the ability of users to find a parking space and visit the area. Alternative parking spaces of the same type are available within a 1-minute walking distance.
None or N/A	No impact on the ability of users to park and access local destinations or not applicable because this type of parking is not present.

1.3 Parking Occupancy Thresholds

The Wellington City Parking Policy has multiple references to restrict parking occupancy to no more than 85%, citing this as an upper limit on desirable occupancy levels. Abley agrees that 85% is a target parking occupancy above which traffic circulation will be high as motorists 'hunt' for an available car park and motorists may not be able to find an available car park space at all. Non-compliant parking may also be widespread and illegal parking common. The occupancy of 85% is considered an optimal 'peak' parking occupancy from "Parking Management Strategies, Evaluation and Planning" T. Litman, Victoria Transport Policy Institute, (2012). It is further noted that if peak parking occupancies are well below this target there is inefficient use of the road space allocated exclusively for parking. In these instances it may be appropriate to allocate road space used for parking to other travel modes/ activities.

This PMP applies the 85% occupancy level as a threshold above which mitigation is required to address adverse effects associated with a lack of available public parking.

2. Parking Survey

2.1 Methodology

The survey focused on on-street parking only within the study area shown in Figure 3-1 and was undertaken from 9am-5pm on two days: Thursday the 24th of February 2022 and Saturday the 26th of February 2022. The survey involved surveyors walking loops of The Parade and adjacent streets in Island Bay and recording the first 4 digits of every licence plate, enabling both occupancy and duration of stay data to be captured. On the Saturday survey, the survey extent was reduced due to a lack of surveyors. This can largely be attributed to the ongoing COVID-19 pandemic, as two of the five pulled out in the morning as they had symptoms. Therefore, the less demanded outer residential areas of the survey were not considered, only the busier commercial areas.

During the survey, Humber Street was closed as part of the Severn Street water main upgrade. Therefore, no parking data was collected on Humber Street.

2.2 Impacts of COVID-19

During the time of the survey occurring, New Zealand was in the red traffic light setting of the COVID-19 protection framework. The largest impact this setting has on the surveys is encouraging staff to work from home where possible. Therefore, a traffic survey undertaken by TDG (now Stantec) in 2017 has been used to validate the accuracy of the survey undertaken. The results of this comparison are presented in Section 7 of this report.

3. Island Bay

3.1 About the area

Island Bay is a residential suburb on the south coast of Wellington which has on-street parking on most streets, along with a major cycleway along The Parade. The different parking restrictions throughout the entire study area are shown in Appendix A with unrestricted parking available elsewhere within the study area.

The Parade is classified as an Arterial Road and hosts the Island Bay town centre including retail activities, a supermarket, a cinema and cafes. Traffic volumes along The Parade are typically 11,000 vehicles per day. The speed limit throughout the central area of The Parade is 30 km/h, and the surrounding streets all have a 50 km/h speed limit.

The PMP study area has been broken down into three sections based on the mix of land use activities and likely parking demands for each as shown in Figure 3-1. Parking sections 1 and 3 are predominantly residential and parking section 2 is predominantly commercial.

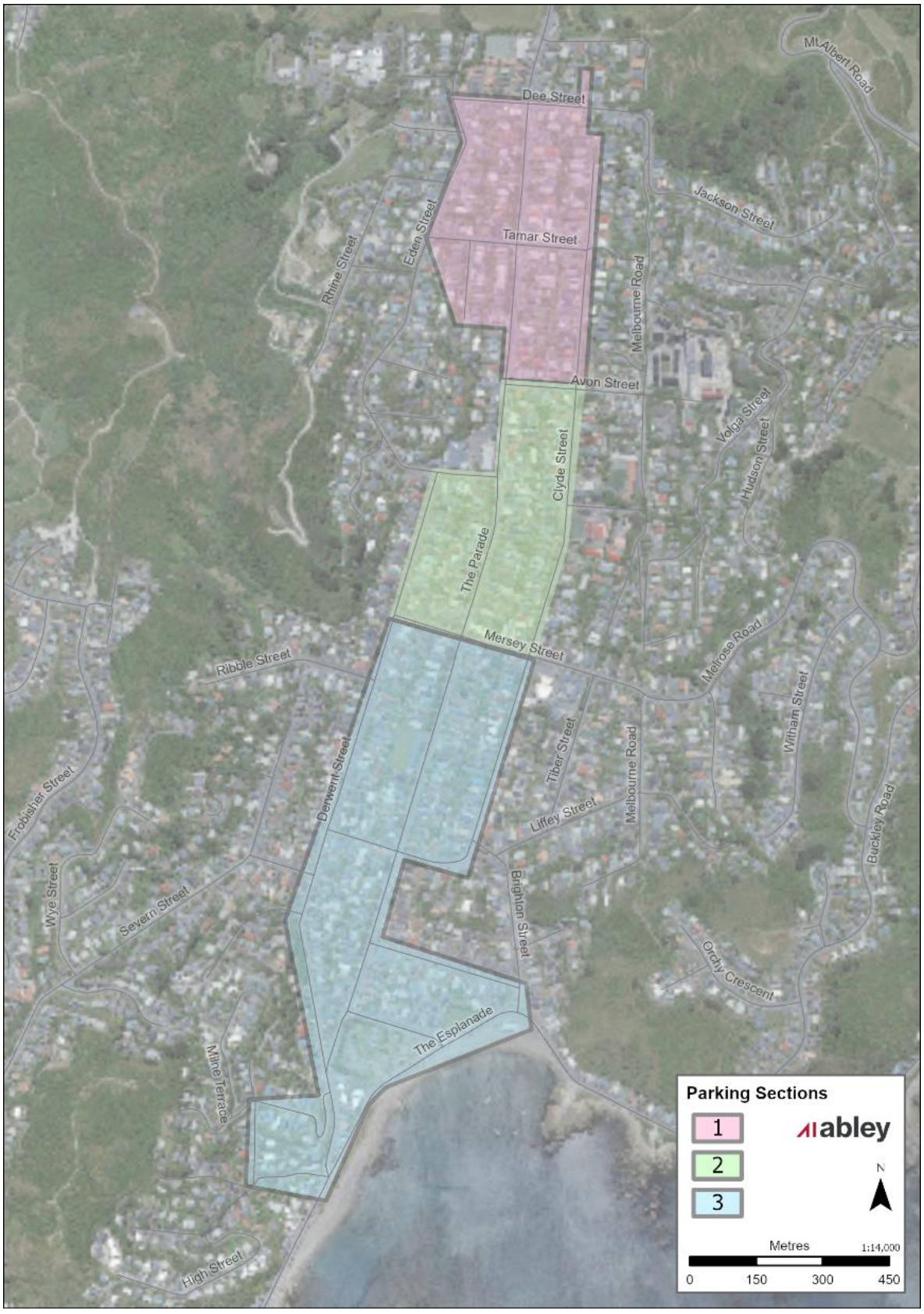


Figure 3-1 Stude area and three subareas included in this assessment

4. North of Avon Street (section one)

4.1 About the area

Section one is located to the north of Avon Street and includes the following streets: Dee St, Tamar St, Eden St, Clyde St, Don St, Waikato St and The Parade (see Figure 4-1). This area is predominantly residential with a small amount of retail activity. On the survey days, there were no roadworks/parking closures affecting the parking supply in this area.

Figure 4-1 Section One

4.2 Current parking and usage

Most of the parking in this area is unrestricted parallel parking. There is a small section of P20 restrictions around local shops (ie. a dairy and takeaway) on Tamar St. The parking inventory in this area is detailed in Table 4-1.

Table 4-1 Zone one parking inventory

Parking type	Current inventory (parks)
Unrestricted	296
P20	3
Mobility	1

Occupancy

Figure 4-2 shows the surveyed occupancy for this area on Thursday and Saturday. The occupancy is relatively consistent throughout the day peaking at 9am in the morning. The average occupancy on the Thursday and Saturday is 55% and 58% respectively. This is significantly lower than the 85% occupancy threshold at which adverse effects such as parking circulation, non-compliant parking behaviour and associated congestion can occur. The 85% threshold has not been exceeded at any point throughout the survey period. The highest occupancy was at 8am on Saturday (67%).

To assess the number of parks used by residents, the parking in this area was surveyed on a Tuesday and Saturday morning at approximately 7am. The resultant surveyed 'overnight' occupancy was 69% on both days and is consistent with the occupancy at 9am on both days. It is noted that the 9am weekday occupancy is approximately 10% lower than the weekend as some residents will have driven to work.

The parking occupancy varies by parking restriction, as shown in Figure 4-3 and Figure 4-4. The three time restricted parks are less consistently busy, but typically more occupied than the unrestricted parks. The unrestricted parks in this area are typically unoccupied, as often there are adjacent unrestricted parks.

The upgrades in Island Bay centre around the Parade corridor. The average occupancy of the car parks on The Parade in section one on both Thursday and Saturday is 77% and 80% respectively which is slightly less than the target 85% occupancy.

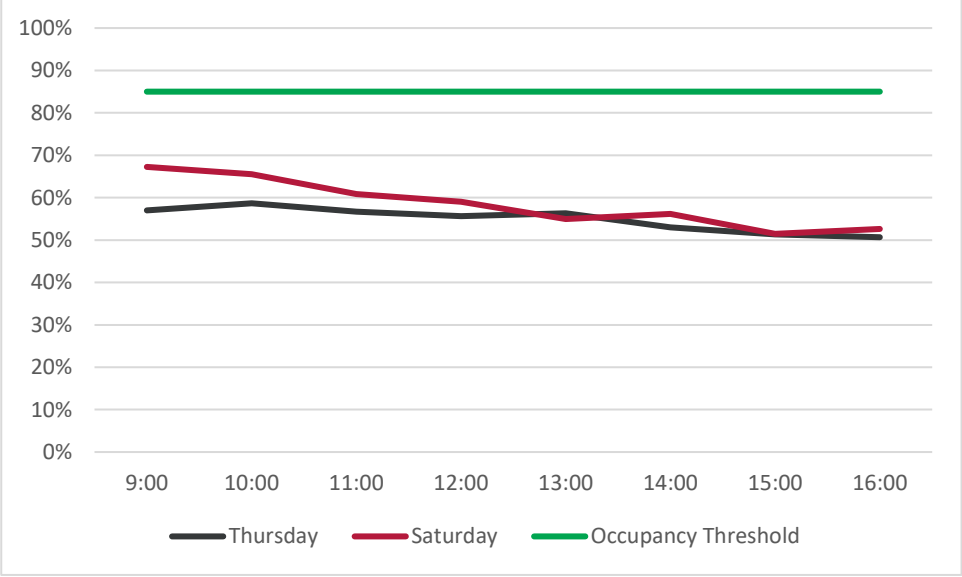


Figure 4-2 Parking occupancy by time of day (section one)

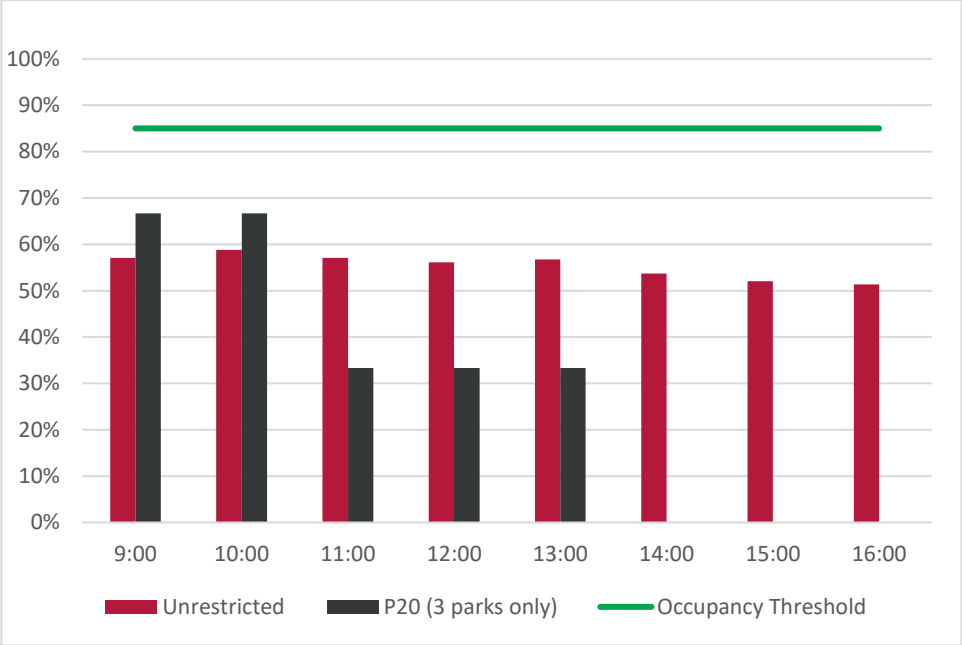


Figure 4-3 Thursday parking occupancy by parking type by time of day (section one)

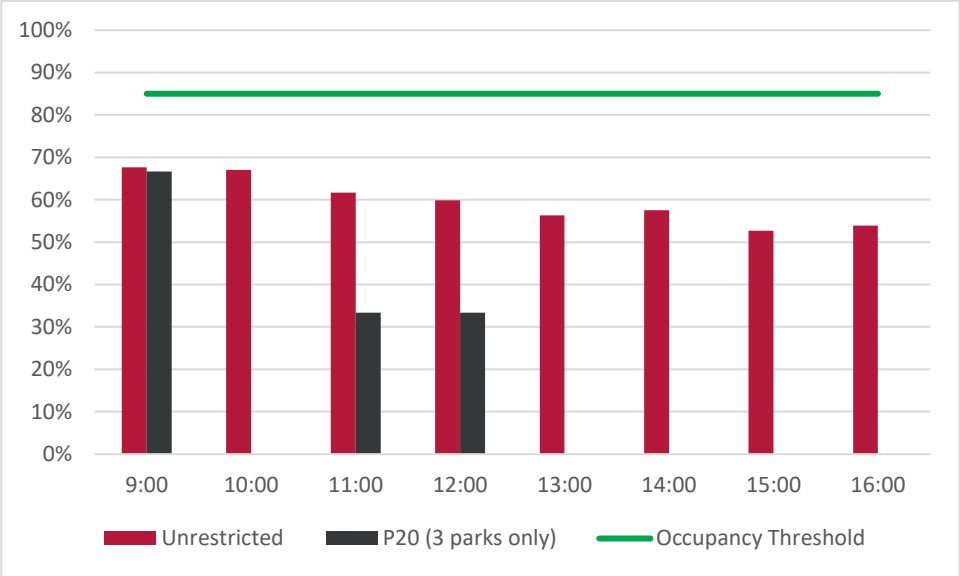


Figure 4-4 Saturday parking occupancy by parking type by time of day (section one)

Duration of stay

Duration of stay data has been collected across the study area and full survey period with results shown in Figure 4-5. The duration of stay characteristics are similar on both survey days, with two defined peaks for the 0-1 hour stay and the 8+ hour stays. This corresponds to 25-32% being visitors parking for short periods whilst visiting shops in the section one or adjacent section two town centre activities, and 23-35% being predominantly resident's vehicles parked for the full duration of the survey. The remainder are relatively evenly spread across 2-7 hours of duration.

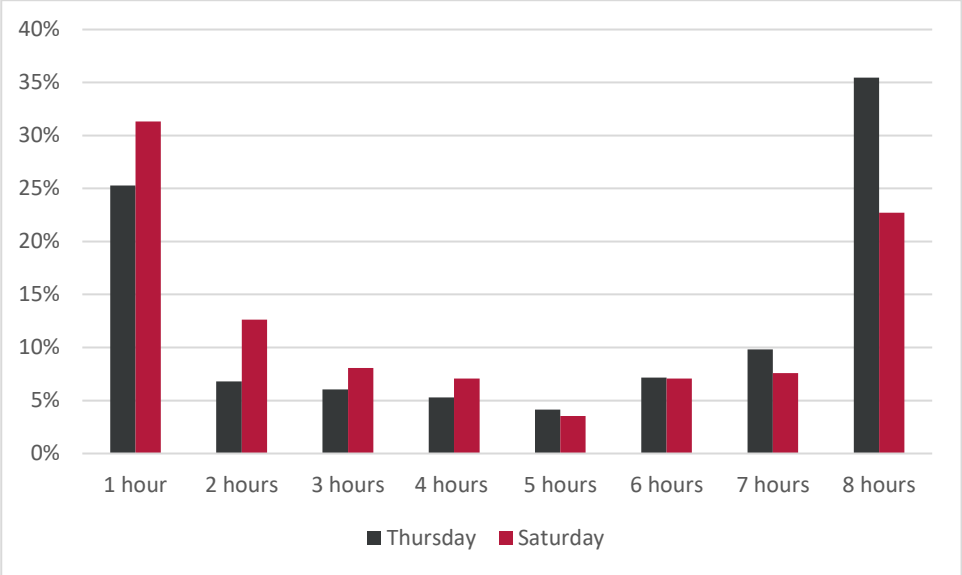


Figure 4-5 Proportion of vehicles by duration of stay (section one)

4.3 Impacts of Island Bay cycleway improvements on parking

There is a net loss of 16 spaces on The Parade in this section one because of the cycleway upgrades (There are parks being added and removed). This is approximately 37% of the available parking supply on The Parade (16 of 41 spaces). The location of parking removed in this area is shown in Appendix B.

The overall occupancy of parking in this section is 58%, however, it is approximately 80% on The Parade (Saturday survey). Therefore, removing the 16 parks on The Parade will have measurable impacts. After the removal of the parking, overall occupancy is expected to be 65% across the section one study area and on The Parade it is expected to be oversubscribed (more demand than supply currently). 12 vehicles will need to park in the alternative locations to bring the parking occupancy back under the 85% occupancy threshold.

The parking removed is all unrestricted parking predominantly used for residential purposes. This parking is classified as lower priority according to Wellington City's Parking Policy as specified in Table 1-1. Given the occupancy of the surrounding area is under subscribed typically (approximately 50%) the impacts of the removal of these parks on residential parking is expected to be moderate. The parks in the side streets are typically within a 3-minute walk from The Parade. The people who typically parked in these parks on The Parade are expected to park in these side streets, as there are ample spaces available.

There is no high priority parking being affected by these upgrades (e.g. short-stay parking for shoppers, taxi stands, etc.). There is no change to the bus stops in this section, the only potential upgrades are to improve the kerb and ramp layouts that currently exist to better improve safety for cyclists/pedestrians.

4.4 Mitigation of parking impacts

In this area, 99% of parks currently available are all-day parks that are generally used by residents. The average occupancy of these parks is 58% at worst. Therefore, there is little mitigation required to offset the impacts associated with the parking removal. The parking along The Parade being removed is residential parking, therefore, the most suitable alternative parking is for these vehicles to be parked on the surrounding streets (Tamar Street, Dee Street). Tamar Street has an average occupancy of around 30%, and is therefore well placed to receive the extra demand from The Parade. There is no further

mitigation measure (e.g. changing restrictions) proposed to account for this parking removal in this area.

It is recommended that WCC engages with residents to understand any issues and concerns associated with the removal of the unrestricted parking along The Parade. From the residents surveys taken, the occupancy of The Parade is approximately 80% at 7am. This is similar to the occupancy of The Parade during the survey. Approximately 50% of parks on The Parade in this section have an 8+ hour duration of stay. These two factors imply heavy residents use in this section, encouraging a need for consultation.

For commuters who use this section (workers in the central area/local shops) there is no specific mitigation proposed. However, it is recommended alternative travel mode options are communicated to these users. This helps ease parking congestion and aligns with the overall strategic objectives of WCC.

Figure 4-6 shows the area within a 3-minute walk from the middle of the centre portion of The Parade. The areas where there is currently available unrestricted parking are highlighted. There is ample alternative parking within a 3-minute walk from The Parade within section one.

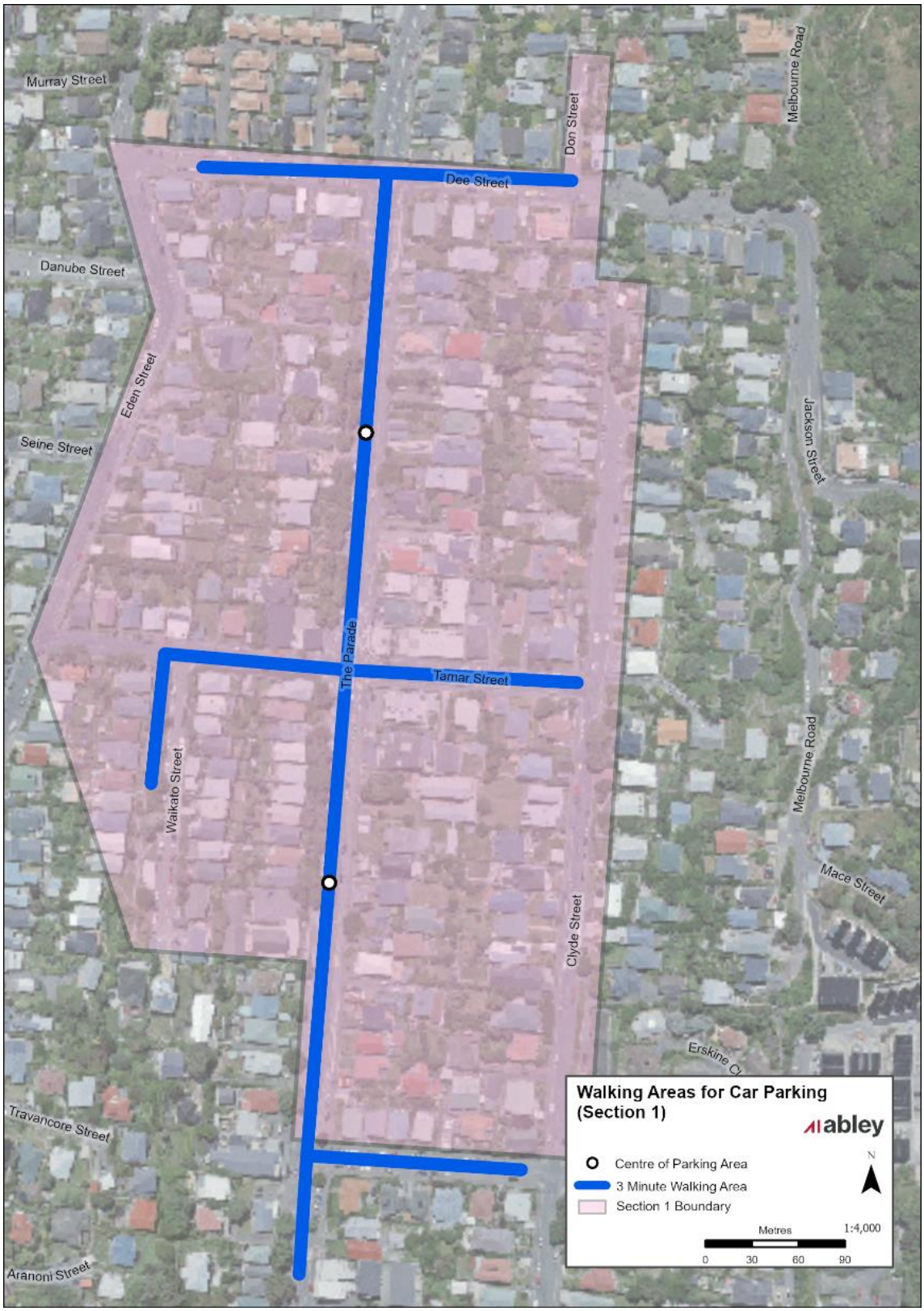


Figure 4-6 Area with available parking within a three minute walk of The Parade (section one)

5. Central area (section two)

5.1 About the area

Section two corresponds to the central area of The Parade including the Island Bay town centre and surrounds. This area is dominated by the shopping centre, with areas of residential on the outskirts of the area (Derwent St, Clyde St, south section of The Parade) and is bounded by Avon Street & Mersey Street (see Figure 5-1).

Figure 5-1 Section Two

5.2 Current parking and usage

The current parking in this area is a mix of P60 time restricted parking and long-term unrestricted parking. Outside the main shopping centre, the parking is angled P60, with three mobility parks. The parking adjacent to residential areas is typically unrestricted parallel parking. Table 5-1 shows the available parking supply for the zone at its current level and the location of restricted and special parking bays is included in Appendix A.

Table 5-1 Section two parking inventory

Parking type	Current inventory (parks)
Unrestricted	119
P60	46
Mobility	3
Taxi	2

Occupancy

Figure 5-2 shows the parking occupancy of the area from both the Thursday and Saturday surveys. The occupancy is relatively consistent throughout the day on both days with a peak at 3pm on Thursday and noon on Saturday. During the Thursday survey, the occupancy was at or near the 85% occupancy threshold throughout the day, with occupancy on Saturday fluctuating between 50-60%.

Parking occupancy broken down by parking type is presented in Figure 5-3 and Figure 5-4 for Thursday and Saturday respectively. On both days the P60 parks typically exceed the 85% optimal threshold in the middle of the day (often reaching 100%). There are unrestricted parks available in the surrounding areas, which are within an approximately 5-minute walk to the town centre and may be attractive for short stay parking.

The parking on The Parade has been assessed separately. The average occupancy along The Parade in this section is 91% on Thursday and 74% on Saturday. Therefore, the parking on The Parade is over the target threshold of 85% during the weekday, however, the occupancy of unrestricted parking on side streets is below the 85% threshold.

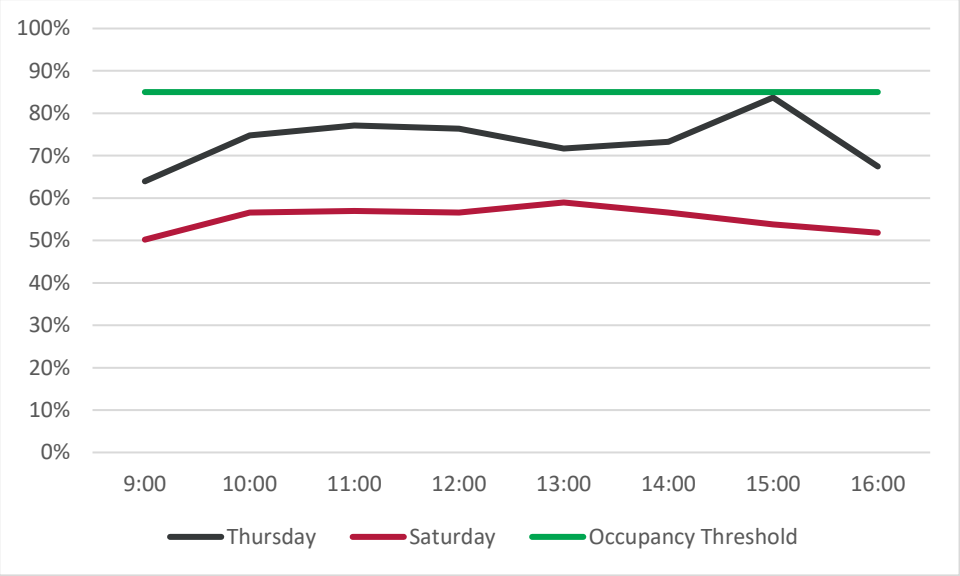


Figure 5-2 Parking occupancy by time of day (section two)

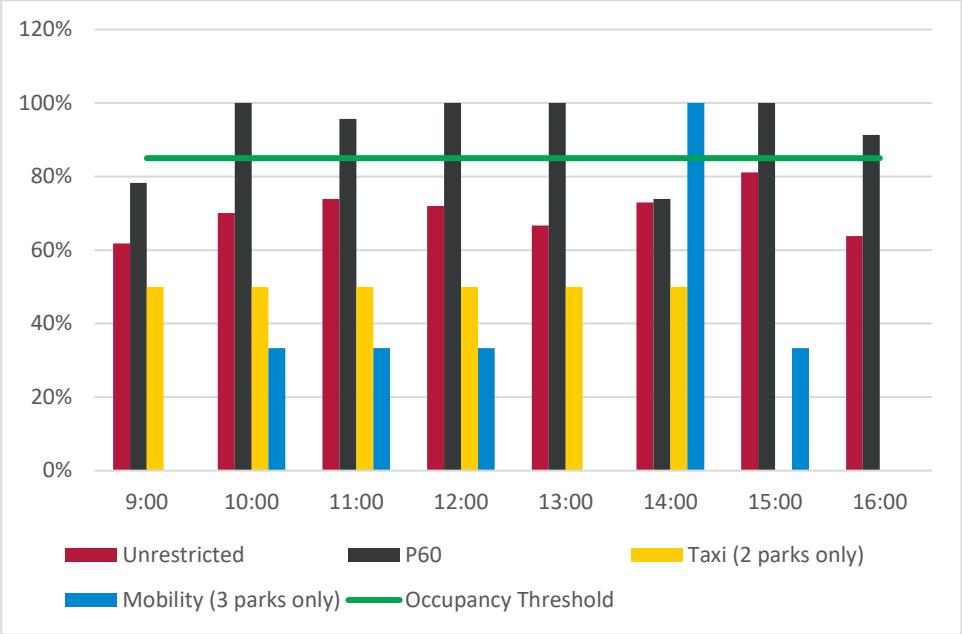


Figure 5-3 Thursday parking occupancy by parking type by time of day (section two)

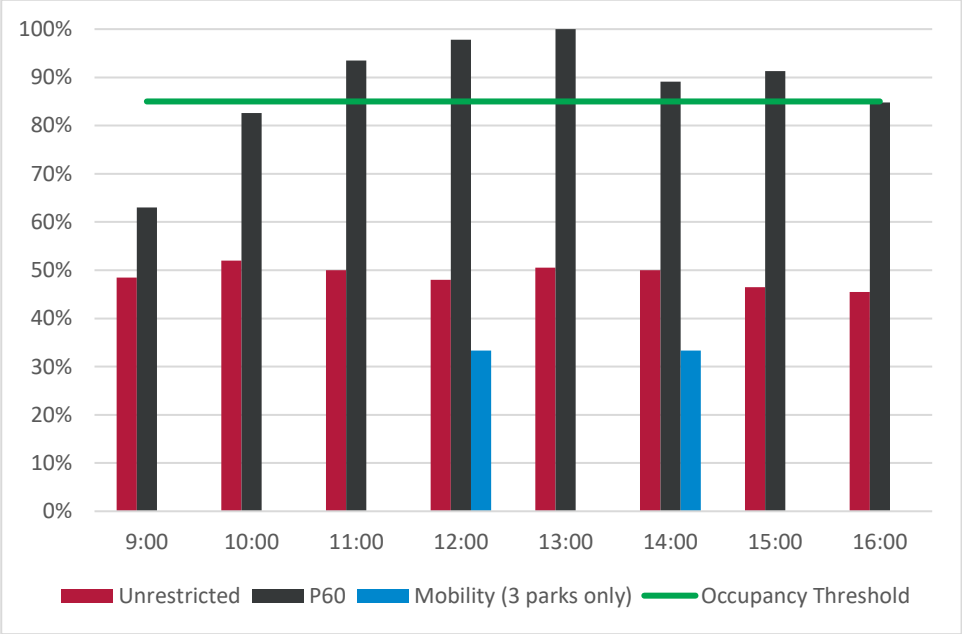


Figure 5-4 Saturday parking occupancy by parking type by time of day (section two)

Duration of stay

Figure 5-5 shows the portion of vehicles parked by duration of stay data for the section two study area on both Thursday and Saturday. Approximately 60% of vehicles park for up to an hour, and the second highest length of stay on both days is 8+ hours relating to a portion of unrestricted residential parking at the northern and southern ends of the section two study area (The Parade, Derwent Street, Avon Street).

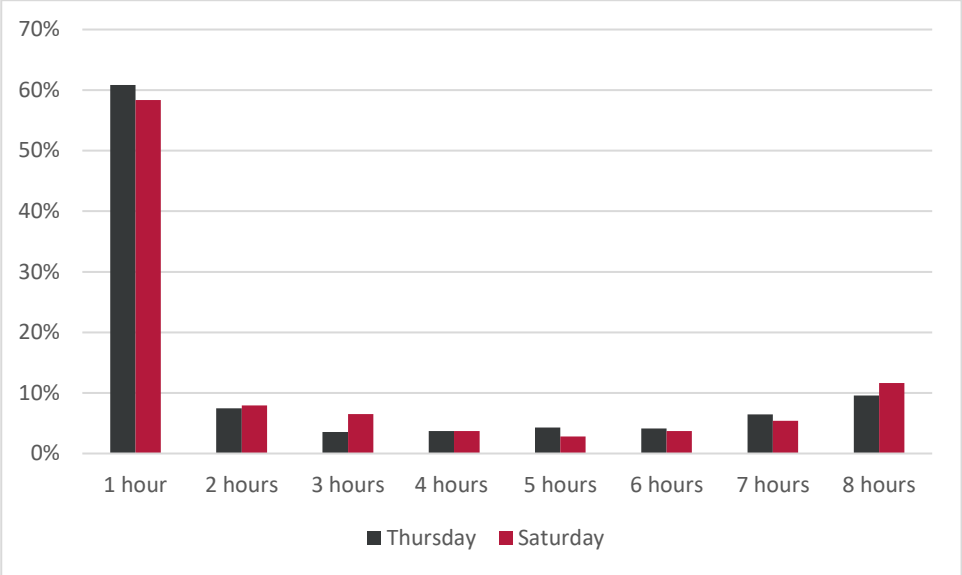


Figure 5-5 Proportion of vehicles by duration of stay (section two)

When only the P60 duration of stay data is considered, the survey data skews further towards a very high proportion of short-term stays. Table 5-2 compares the duration of stay data for the two survey periods. Most vehicles are parked for less than 1 hour, as is compliant with the parking restrictions. However, approximately 13% of users each day are exceeding the parking restriction.

Table 5-2 Duration of stay data for P60 parks

	0-1 hour	1-2 hour	2-4 hour	4+ hour
Thursday	87%	8%	3%	2%
Saturday	87%	4%	6%	3%

5.3 Impacts of Island Bay cycleway improvements on parking

In section two there is a net loss 23 spaces because of the Island Bay cycleway improvements (There is parking removed and added). Of these 23, 12 are P60 (nothing that there are also 2 more parks being added on The Parade, with restrictions undefined). and the remainder are unrestricted. Appendix B shows the locations of each parking type being removed for The Parade. There are no high priority parking types (Taxi, Mobility, loading zone) being removed in these upgrades. One mobility space is being relocated, however, only by approximately 10 metres which will have no material impact on users.

Currently the parking in this section is 74% occupied overall, and 91% occupied on The Parade on Thursday. With the parking removal proposed and no relocation of vehicles from The Parade, the overall occupancy is expected to be 81% and The Parade is expected to be over subscribed. The unrestricted parkers on The Parade are expected to use the unrestricted parks available on Derwent and Clyde Street. 24 parkers on The Parade (both unrestricted and P60) are needed to park on the other available spaces to bring the parking occupancy on The Parade under the 85% occupancy threshold

The P60 parks being removed are classified in the Wellington City Parking Policy as low priority and the unrestricted parking removed is lower priority, according to Table 1-1. The removal of these parks

results in the overall occupancy of the area being close to 100%, meaning there will not be sufficient P60 car parks available within walking distance of the town centre to meet demand. These vehicles will be able to use unrestricted parking that are not full, however, there will also be fewer of these available.

5.4 Mitigation of parking impact

The parking being removed in this section is a combination of time restricted and unrestricted parking. Table 5-3 shows the proposed measures to mitigate the impact of parking loss.

Table 5-3 Mitigation measures for section two

Parking type	Proposed mitigation	Level of impact after
Short stay	Convert 11 angle and 6 parallel parks on Medway Street from unrestricted all-day parking to P60 parking (See Figure 5-6**Error! Reference source not found.**). This will avoid these spaces being filled by residents/commuters. There will still be sufficient residents/commuter parking on Derwent Street. This includes wayfinding to these parks.	Low
	Convert 9 parallel parks on Avon Street (closest to The Parade) to P60 parks (see Figure 5-6). This will avoid these spaces being filled by residents/commuters. There will still be unrestricted parking available for residents/commuters on Avon Street and Clyde Street. This includes wayfinding to these parks.	
Commuter	Encourage commuters to use other modes where possible. Direct commuters to the all-day parking on Derwent and Avon Street.	Low
Resident	There is little mitigation occurring for residents. There is still ample parking supply on Derwent, Avon and Clyde Street for residents.	Moderate

Figure 5-6 P60 parking changes in the central area of The Parade

Table 5-4 shows the inventory for the area currently, after the upgrades and after the mitigation measures are implemented. This also shows the expected occupancy of each parking type after mitigation (based on the busier Thursday survey). The P60 parking falls below the 85% occupancy threshold with the mitigation options, whereas currently the average occupancy of these parks is 92%. The unrestricted parking in this section is 87% - only slightly over the target occupancy of 85%. However, vehicles can be parked in the adjacent streets in sections 1 and 2 if required. The following shows the number and type of parks available in the wider study area:

- The Parade: 12 unrestricted spaces, 22 P60 spaces, 2 mobility spaces
- Medway Street: 22 P60 spaces, 2 taxi spaces
- Derwent Street: 54 unrestricted spaces
- Avon Street: 9 P60 spaces, 16 unrestricted spaces
- Clyde Street: 88 unrestricted spaces

Table 5-4 Comparison of section two parking inventory

Parking type	Current inventory	Inventory After upgrades	Inventory After mitigation	Net change	Current Occupancy	Average expected occupancy
Unrestricted	207	196	176	-31	70%	83%
P60	46	34	54	+8	92%	79%
Mobility	3	3	3	No change	38%	38%
Taxi	2	2	2	No change	29%	29%

The impact on each parking user is outlined in the following:

- Residents: There is a moderate impact on residents parking. The red line on Figure 5-7 shows the all-day parking available within a five minute walk of the current all-day parking which is removed. There is ample all-day parking available further out from the central area along The Parade, Derwent Street and Clyde Street. This may result in residents of section 2 parking at the northern end of section 3, as the unrestricted parking in section 2 will slightly exceed the optimal occupancy threshold.
- Commuter: There is a low impact on commuter parking. Assuming the commuters are accessing the commercial centre, there is ample all-day parking available within a three minute walk from the current parks, as shown by the blue line on Figure 5-7.
- Short-stay parkers: There is a very low impact on short stay parking and an overall improvement over the current situation. After mitigation there are more P60 parks available within a 1-minute walking area. The locations selected to convert unrestricted parking to P60 are Medway Street which already has time restricted parking, and Avon Street which is the nearest Street to capture the displaced P60 parking on the north end of the shopping centre. The green line on Figure 5-7 shows the available P60 parking within a one minute walk of the existing parking.

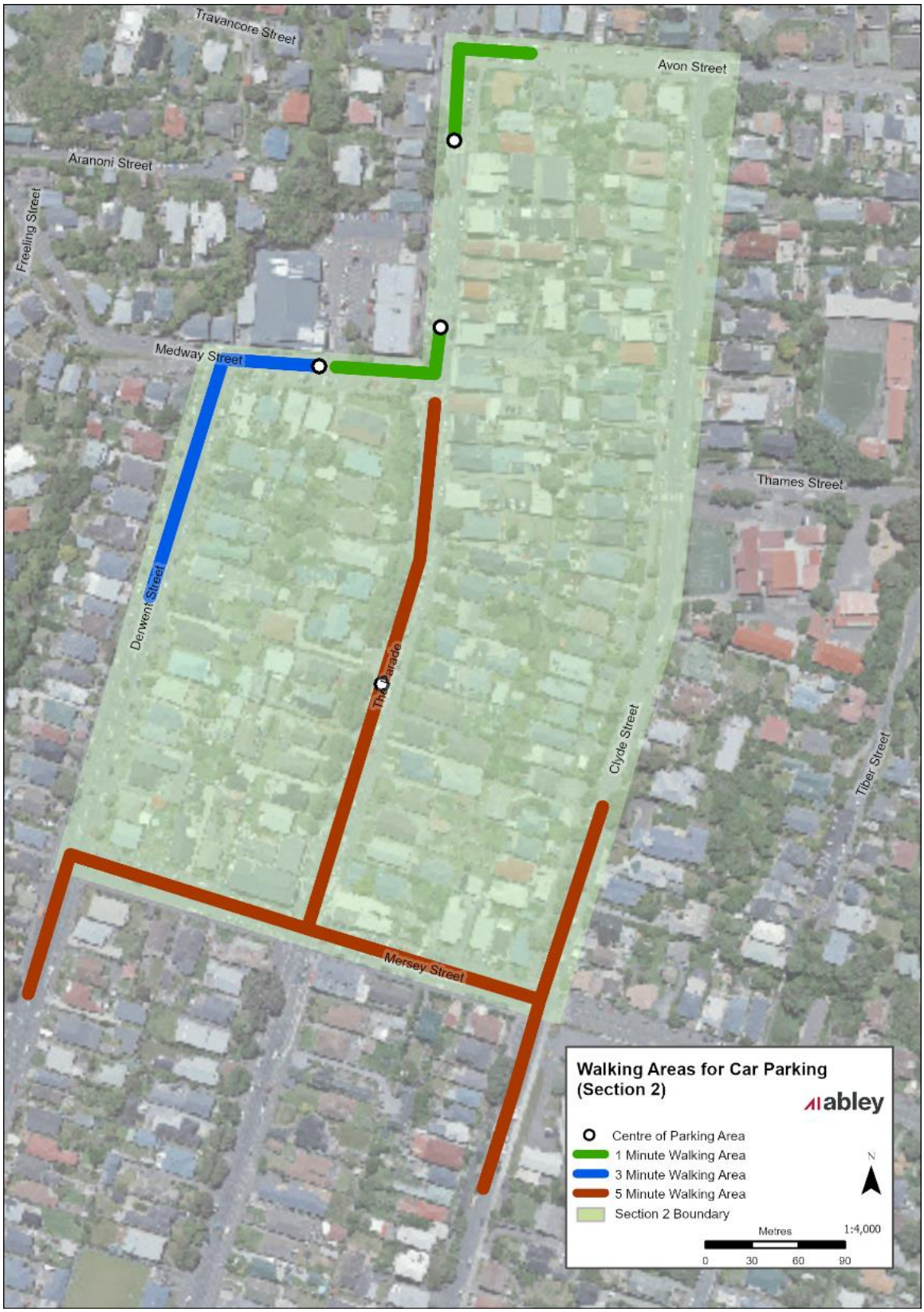


Figure 5-7 Section two distance to walk from removed parking to alternative parking

6. South of Mersey Street (section three)

6.1 About the area

The area south of Mersey Street is a primarily residential area. There are a few shops around the corner of The Parade and Reef Street. This area includes the following streets: Mersey St, Clyde St, Derwent St, Humber St, Trent St, Reef St, The Esplanade, Beach St, Knoll St, and Milne Tce (See Figure 6-1).

Figure 6-1 Section Three

6.2 Current parking and usage

The parking in this area is primarily unrestricted parallel parking. This is due to the largely residential activity in this area. There is a small section of P20 (one park) and P120 (three parks) outside the shops at the southern end of The Parade. There are 12 P10 parks around the Mersey Street shops. Table 6-1 shows the current parking supply for the southern section.

Table 6-1 Section three parking inventory

Parking type	Current inventory (parks)
Unrestricted	719
P10	12
P20	1
P60	9
P120	3
Mobility	4

Occupancy

Figure 6-2 shows the parking occupancy throughout the day on both Thursday and Saturday. The parking follows a similar trend both days, however, is typically higher on the Saturday. This may be influence by the weather on the day of the survey. Saturday was a sunny day, and the parking closer to the beach (Reef Street, The Esplanade) was notably busier than the weekday survey. The occupancy in this area did not exceed the 85% threshold at all throughout the day, with the highest occupancy being on the Saturday in the afternoon (69%).

The overnight occupancy of parks by residents has been assessed on both a Saturday and Tuesday. This survey did not capture duration of stay data. The occupancy of these parks as observed at 7am on the weekday was 50%, whilst it was only 46% in the weekend.

When the occupancy is broken down by paring restriction, similar trends to the other two areas are observed. The time restricted parks typically have higher occupancy levels as shown in Figure 6-3 and Figure 6-4 for Thursday and Saturday respectively. For this analysis, all the time restrictions have been combined given the low number of time restricted spaces in total. The occupancy of time restricted parks were approximately 10% higher than the unrestricted parks. However, during the first survey period (9am on the Thursday) the time restricted parks were 91% occupied. This is likely due to residential parkers using these parks overnight as there is no enforcement. This did not occur during the Saturday survey; however, the time restricted parks were still typically busier than the unrestricted parks.

The parking along The Parade (in isolation from the wider section three study area) was 65% occupied on Thursday and 78% on Saturday.

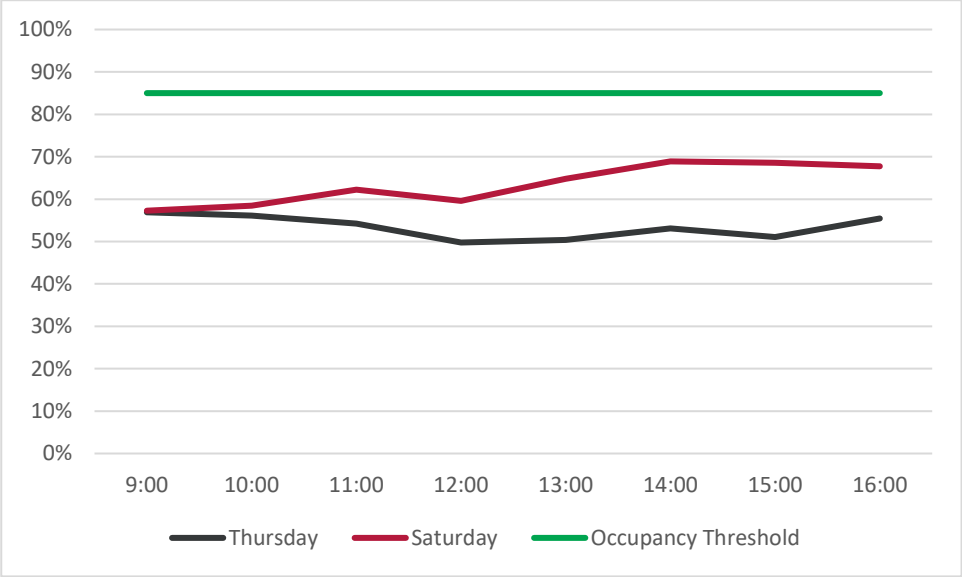


Figure 6-2 Parking occupancy by time of day (section three)

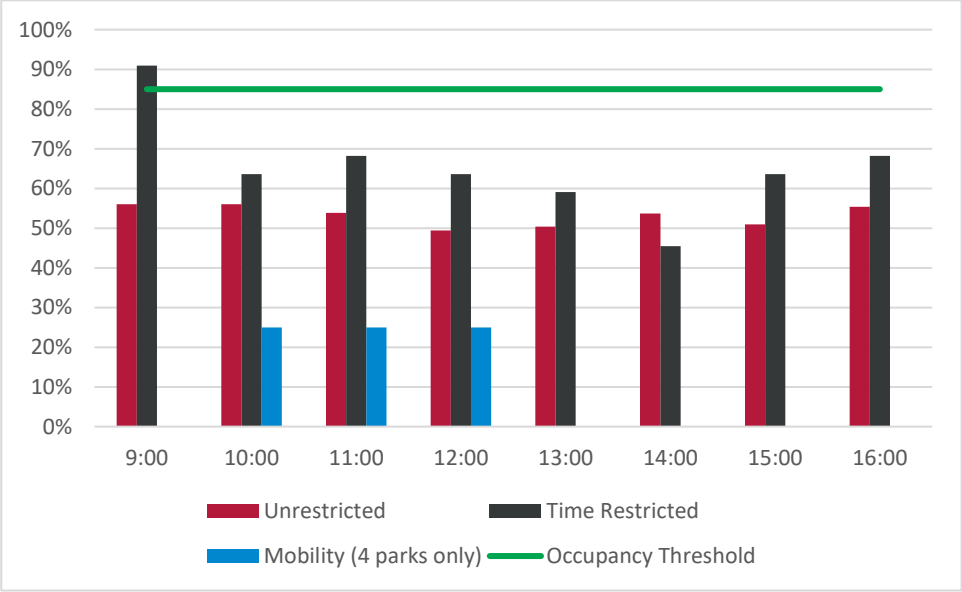


Figure 6-3 Thursday parking occupancy by parking type by time of day (section three)

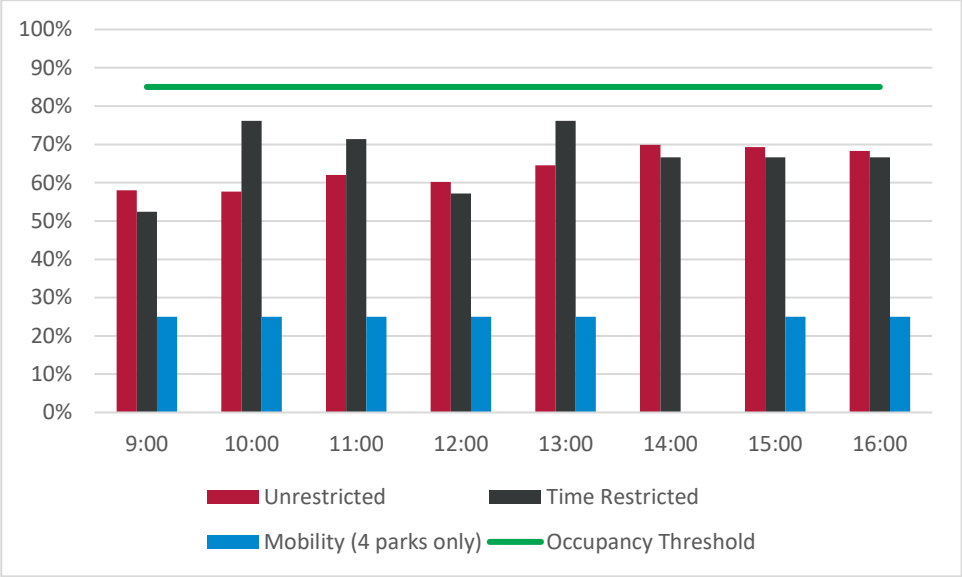


Figure 6-4 Saturday parking occupancy by parking type by time of day (section three)

Duration of stay

The duration of stay survey for the southern section demonstrated 45-60% of vehicles park for up to one hour which is consistent with section two as shown in Figure 6-5. The Saturday survey was undertaken on a day where the beach was very busy. Therefore, what would typically be unrestricted residential parking towards the southern end of the section was very busy, with typically 1–2-hour stays. Further analysis of the survey data showed a similar profile irrespective of parking type.

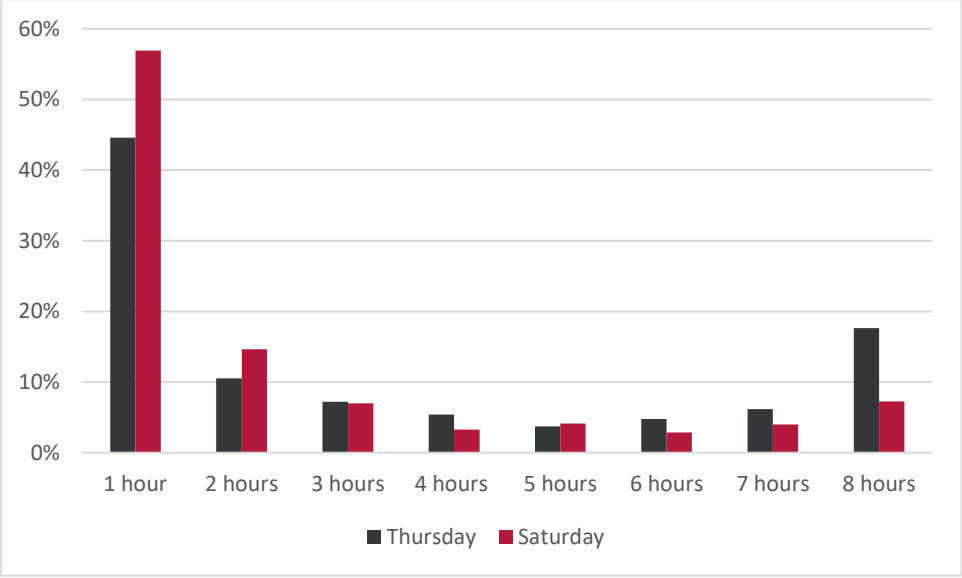


Figure 6-5 Proportion of vehicles by duration of stay (section three)

6.3 Impacts of Island Bay cycleway improvements on parking

Of the 80 car parks removed across the full study area there is a net loss of 42 parks in section three along The Parade. This is approximately 47% of the available parking supply in this section along The Parade (91 parks). Appendix B shows the location of parking being removed.

This section of The Parade has an average occupancy of 63% (taken from the higher Saturday survey). After the removal of the 42 parks, the occupancy of the full section three study area is only 72%, whilst in isolation the occupancy on The Parade would be insufficient to meet demand. 49 vehicles who typically park on The Parade would need to park in the alternative locations to bring the occupancy below the 85% occupancy threshold.

The parking proposed to be removed is all unrestricted parking which is typically available for residents but does get extensively used for short-term parking especially in the southern end. This parking is classified as lower priority, from the 2020 Wellington City Parking Policy. Given the occupancy of the entire section three study area is surveyed as 58%, the impact of this removal is expected to be moderate – high. There are alternative unrestricted parks available in section three within a five minute walk. The parkers who typically use The Parade are expected to use the surrounding streets as alternative locations for unrestricted parking. There is ample parking in this section (currently 63% occupied) so finding a space is not expected to be an issue. There is no removal of high priority parking (mobility parks, short term shopper parking) or bus stops/loading zones.

6.4 Mitigation of parking impact

Overall, the occupancy of the entire area is well below the 85% threshold when the 43 parks on The Parade are removed. The current level of demand for The Parade outweighs the supply after the parking is removed, however, it is expected that most users will find alternative parking on the surrounding streets. These users are typically residents. No mitigation is proposed to account for the impacts of this parking removal. It is recommended that WCC engages with residents to understand any issues and concerns associated with the removal of the unrestricted parking along The Parade

Figure 6-6 shows all the all-day parking within a 5-minute walking distance from the parking which is being removed. There is sufficient parking available and the impact on all-day parkers is low.

It is recommended that WCC engages with residents to understand the issues and opinions associated with the removal of the residents parking. From the residents' surveys taken, the occupancy of The Parade is approximately 50% at 7am. This is like the occupancy of The Parade during the survey. Approximately 30% of parks on The Parade in this section have an 8+ hour duration of stay. These two factors imply moderate residents use in this section, encouraging a need for consultation

For commuters who use this section (workers in the central area/local shops) there is no specific mitigation proposed. However, it is recommended alternative travel mode options are communicated to these users. This helps ease parking congestion and aligns with the overall strategic objectives of WCC.

Figure 6-6 Section three distance to walk from removed parking to alternative parking

7. Comparison to 2017 data

To assess the validity of the survey results as a result of the 2022 red light COVID-19 restrictions at the time of survey, the 2022 data has been compared to similar data from a 2017 TDG survey. Table 7-1 compares overall occupancy and duration of stay data for section two with the 2017 TDG survey.

The study areas are relatively similar with no significant changes in land use activity in the past five years. It is further noted that the 2017 survey did not capture section one and section three parking data.

Table 7-1 Comparison of 2022 and 2017 survey data for section two

	2017 Weekday	2022 Weekday	2017 Weekend	2022 Weekend
Average Occupancy	59%	71%	54%	55%
<1 hour park	62%	64%	65%	64%
1-2 hour park	10%	12%	10%	14%
2-4 hour park	6%	7%	8%	5%
4+ hour park	21%	17%	16%	17%

From these results the two survey periods are relatively similar especially for weekends. The key difference is that the average occupancy is higher during the 2022 weekday compared with the 2017 weekday which may reflect increased activity and/or car ownership within the study area. These results show that the current COVID-19 restrictions are not resulting in a reduction in parking demand overall. The duration of stay data shows a similar proportion of up to one hour parking which implies that a similar number of people are visiting the local cafes, shops and other short-stay activities relative to five years ago.

This demonstrates that the 2022 parking survey results can be relied upon to form the basis of the 2022 PMP for The Parade.

8. Discussion and Conclusion

This report has been developed to analyse the effects of the proposed upgrades to the Island Bay Cycleway on parking in Island Bay. The removal of the 80 parks associated with The Parade cycleway upgrade project will results in some vehicles that currently use unrestricted parking on The Parade seeking available parking on side streets in residential areas. Within the Island Bay town centre, the removal of P60 parking along The Parade will result in a shortfall of available parking for shoppers. Mitigation is proposed through the transformation of 25 unrestricted parks around the town centre from unrestricted parks to P60 parks.

Table 8-1 shows the summary of parking changes in each section after mitigation, and demonstrates that all three zones have expected peak parking occupancies of well below the critical 85% threshold above which adverse parking effects and behaviours occur.

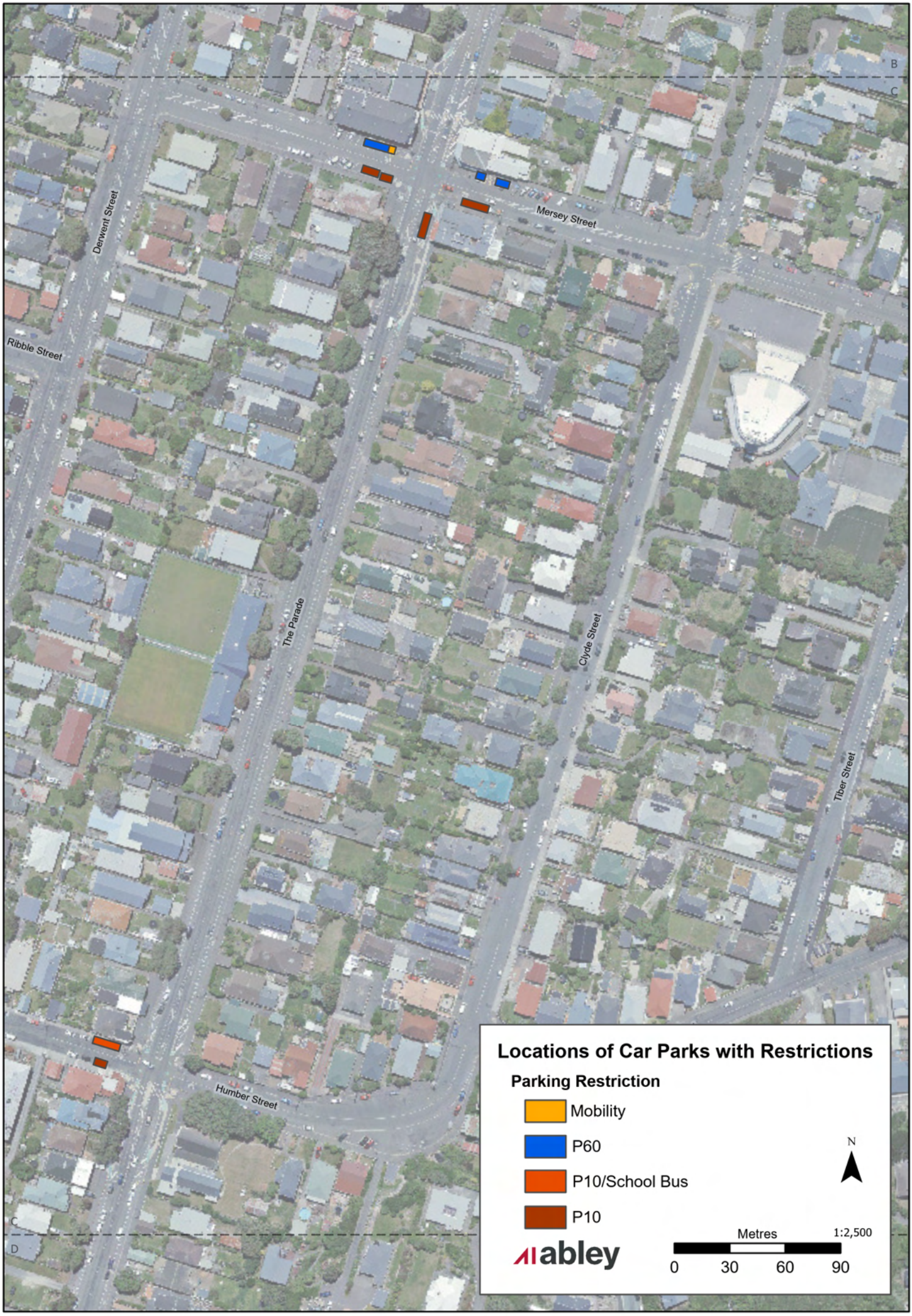
Table 8-1 Occupancy of the three sections before and after the proposed changes

Subarea	Current Peak Occupancy	Expected Peak Occupancy	Proposed Changes
Section One	58%	65%	Net loss of 16 unrestricted spaces on The Parade as part of the cycleway upgrade. Sufficient available unrestricted parking on adjacent streets to meet parking demand and retain good level of service without mitigation.
Section Two	74%	81%	Net loss of 23 spaces on The Parade as part of the cycleway upgrade. Convert 25 unrestricted parks to P60 parks. Encourage long term parkers and commuters to park further from the town centre. Encourage a mode shift for commuters.
Section Three	63%	72%	Net loss of 42 spaces on The Parade as part of the cycleway upgrade. Sufficient available unrestricted parking on adjacent streets to meet parking demand and retain good level of service without mitigation.

Appendix A.
Maps of parking restrictions


Murray Street
Don Street
Dee Street
Danube Street
The Parade
Seine Street
Eden Street
Tamar Street
Cam Street
Waikato Street
Clyde Street
A
B
Erskine Close
Locations of Car Parks with Restrictions
Parking Restriction
Mobility
P20
N
Metres
1:2,500
0
30
60
90
ableY


Eden Street
Travancore Street
Avon Street
Aranoni Street
Clyde Street
Medway Street
The Parade
Thames Street
Derwent Street
Mersey Street
A
B
B
C
Locations of Car Parks with Restrictions
Parking Restriction
Mobility
P60
Taxi Stand
N
Metres
1:2,500
0
30
60
90


Derwent Street
Mersey Street
Ribble Street
The Parade
Clyde Street
Tiber Street
Humber Street
B
C
C
D
Locations of Car Parks with Restrictions
Parking Restriction
Mobility
P60
P10/School Bus
P10
N
Metres
1:2,500
0
30
60
90
ably


C
D
Kellsmere Crescent
Trent Street
The Parade
Derwent Street
Reef Street
The Esplanade
Milne Terrace
Beach Street
Locations of Car Parks with Restrictions
Parking Restriction
Mobility
P120
P20
N
Metres
1:2,500
0
30
60
90

Appendix B.
Maps of parking removals


Murray Street
Don Street
Dee Street
Danube Street
The Parade
Seine Street
Eden Street
Tamar Street
Cam Street
Waikato Street
Clyde Street
Erskine Close
A
B
1
1
2
1
1
1
1
1
1
1
2
2
1
1
1
Number and Locations of Car Parks Lost due to Cycleway
ableyUnrestricted
N
Metres
1:2,500
0
30
60
90


Eden Street
Travancore Street
Avon Street
Aranoni Street
Medway Street
The Parade
Clyde Street
Thames Street
Derwent Street
Mersey Street
A
B
C
1
1
1
2
4
9
0
3
1
2
1
1
1
2
1
1
1
1
4
Number and Locations of Car Parks Lost due to Cycleway
Parking Restriction
Mobility
Unrestricted
P60
ableyN
Metres
1:2,500
0
30
60
90


Derwent Street
Mersey Street
Ribble Street
The Parade
Clyde Street
Tiber Street
Liffey Street
Humber Street
4
1
1
3
1
1
1
1
2
1
2
1
1
1
1
1
2
1
2
1
1
1
1
1
2
1
B
C
C
D
Number and Locations of Car Parks Lost due to Cycleway
ableyUnrestricted
N
Metres
1:2,500
0
30
60
90


1
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2
1
1
1
1
1
1
1
1
1
1
C
D
Kellsmere Crescent
Trent Street
The Parade
Derwent Street
Reef Street
The Esplanade
Milne Terrace
Beach Street
Number and Locations of Car Parks Lost due to Cycleway
Parking Restriction
P120
P60
N
Metres
1:2,500
0
30
60
90

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