



HIGHPOINT MAJOR ACTIVITY CENTRE CAR PARKING PLAN

OPTIONS AND STRATEGY ANALYSIS REPORT

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HIGHPOINT MAJOR ACTIVITY CENTRE CAR PARKING PLAN – OPTIONS AND STRATEGY ANALYSIS REPORT

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1 INTRODUCTION

O'Brien Traffic has been engaged by Maribyrnong City Council to prepare a Car Parking Plan and associated planning scheme controls (such as a Parking Overlay) for the Highpoint Major Activity Centre (HMAC) and the surrounding area.

The aim is to provide guidance on the management of both existing and future car parking resources in the HMAC including, the minimum and/or maximum amount of parking that should be provided for different land uses.

The study area and precinct map are shown in **Figure 1**.

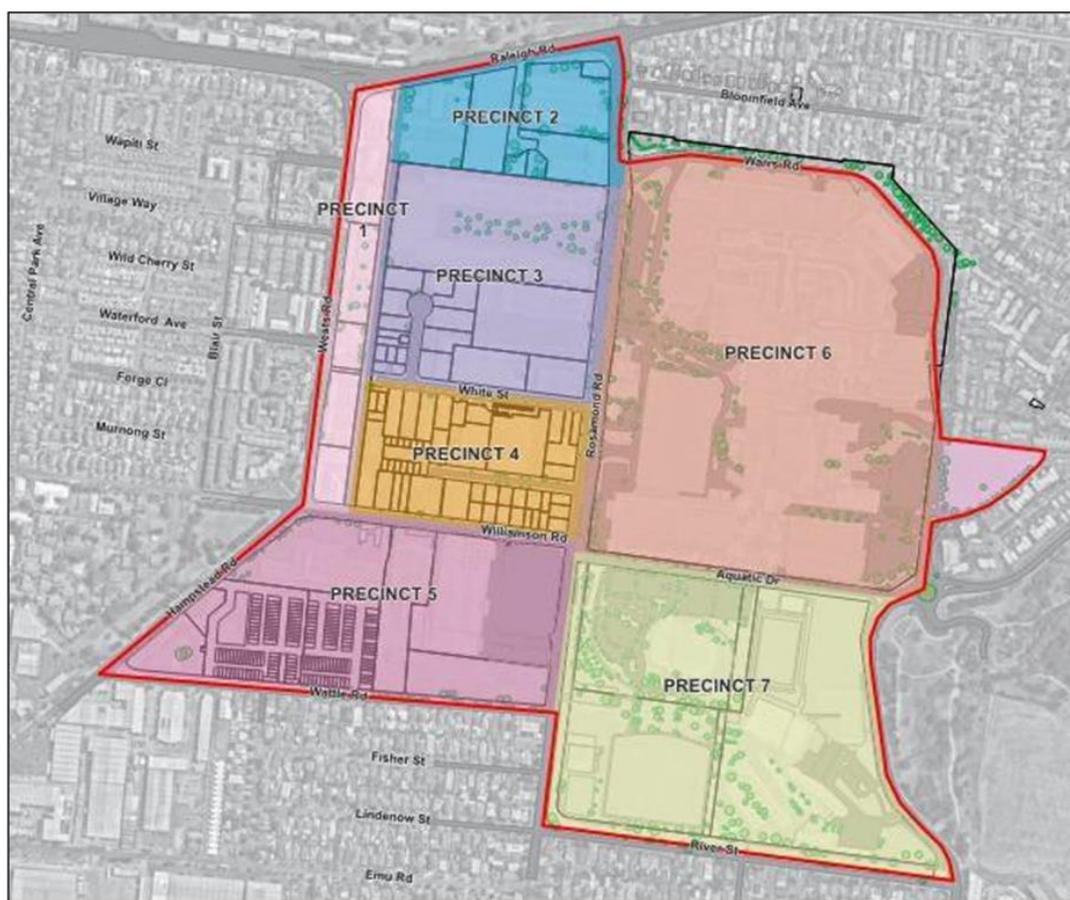


FIGURE 1: HIGHPOINT MAJOR ACTIVITY CENTRE STUDY AREA AND PRECINCTS

This report will:

- consider issues/opportunities identified from the background report (which has been prepared and summarised below),
- develop an objective(s) for each of the identified issues, and
- develop strategies to achieve each of the objectives.

2 BACKGROUND REPORT

As discussed above a background report has been prepared for the study area which includes:

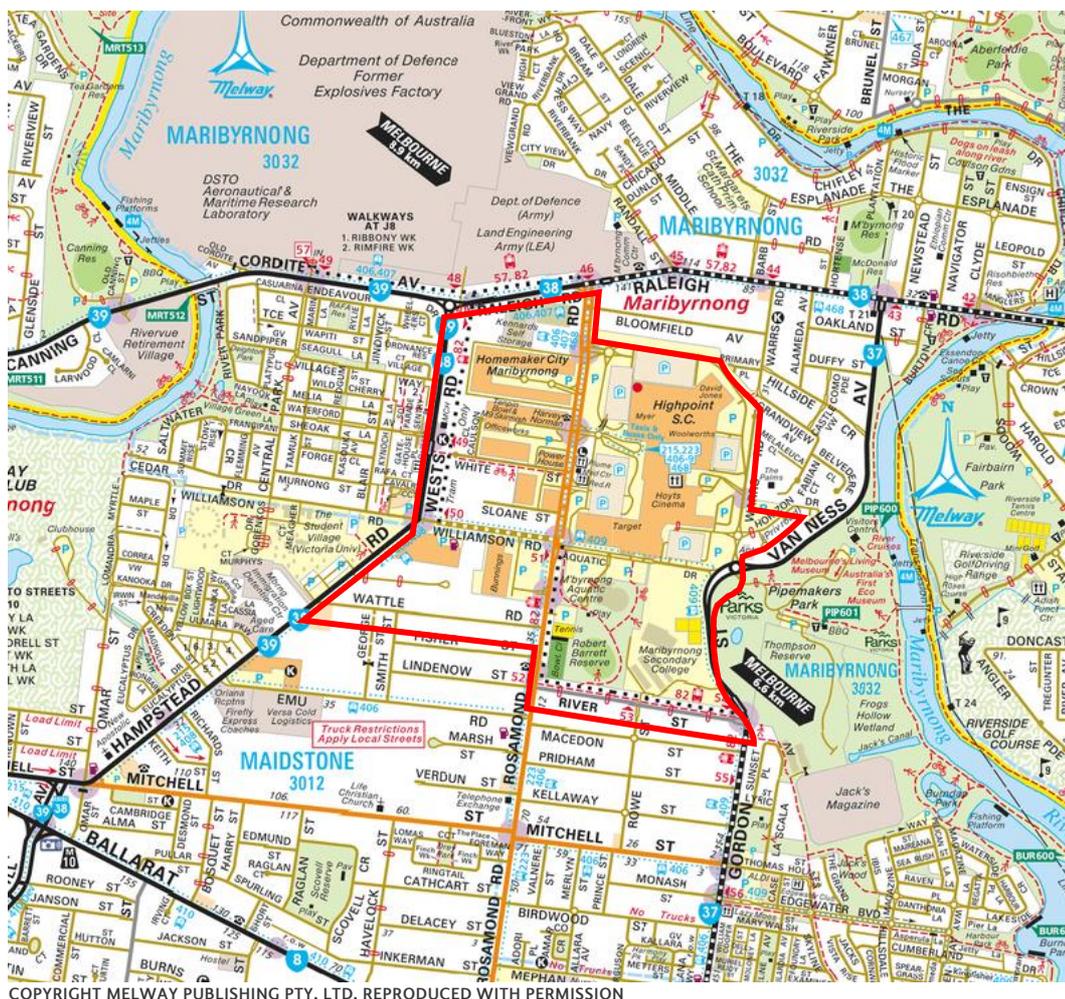
- review of existing conditions (public transport facilities servicing the study area, crash history for the last 5 years, etc.);
- review of strategic documents relevant to the study area;
- review of existing parking issues/concerns;
- analysis of existing residential car ownership of dwellings within, and in the immediate vicinity of, the HMAC;
- parking surveys of existing parking demands within each of the 7 precincts and analysis of same; and
- a parking demand assessment of the potential growth in existing and new uses.

The above is discussed in more detail below.

2.1 EXISTING CONDITIONS

2.1.1 Location and Land use

The HMAC is located in the suburb of Maribyrnong. The location of the subject site and surrounding area is shown in **Figure 2**. A recent aerial photograph is shown in **Figure 3**.



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FIGURE 2: LOCATION OF STUDY AREA



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FIGURE 3: AERIAL PHOTO OF STUDY AREA

2.1.2 Surrounding Land use

The surrounding land uses predominantly consist of residential development particularly to the northeast, south and west of the study area. The main exceptions are:

- the former Department of Defence facility to the north which is anticipated to be developed to provide 6,000 new dwellings and 2,500 new jobs.
- the public open space/recreational area to the east of the southeast corner (Pipemakers Park and Thomas Reserve),
- the industrial area to the southwest,
- Waterford Green to the west, a mature residential subdivision consisting mainly of single family homes.
- Maribyrnong residential neighbourhood to the northeast which consists mostly of single family homes,
- 'Horizon drive' development on C1Z land to the east consisting mainly of apartments, and
- Special Use Zone to the west of the southwest corner of the study area. This was a former Victoria University student hostel of which a significant portion is currently being redeveloped as a tram depot by the Department of Transport and Planning.

2.1.3 Casualty Crash History

A review of the Department of Transport and Planning (DTP) Crash Stats – Data Extract database was undertaken to ascertain the casualty crash history within the study area across the most recent 5 years of available data (July 2015 to June 2020).

The locations of recorded casualty crashes are summarised in **Figure 4**.

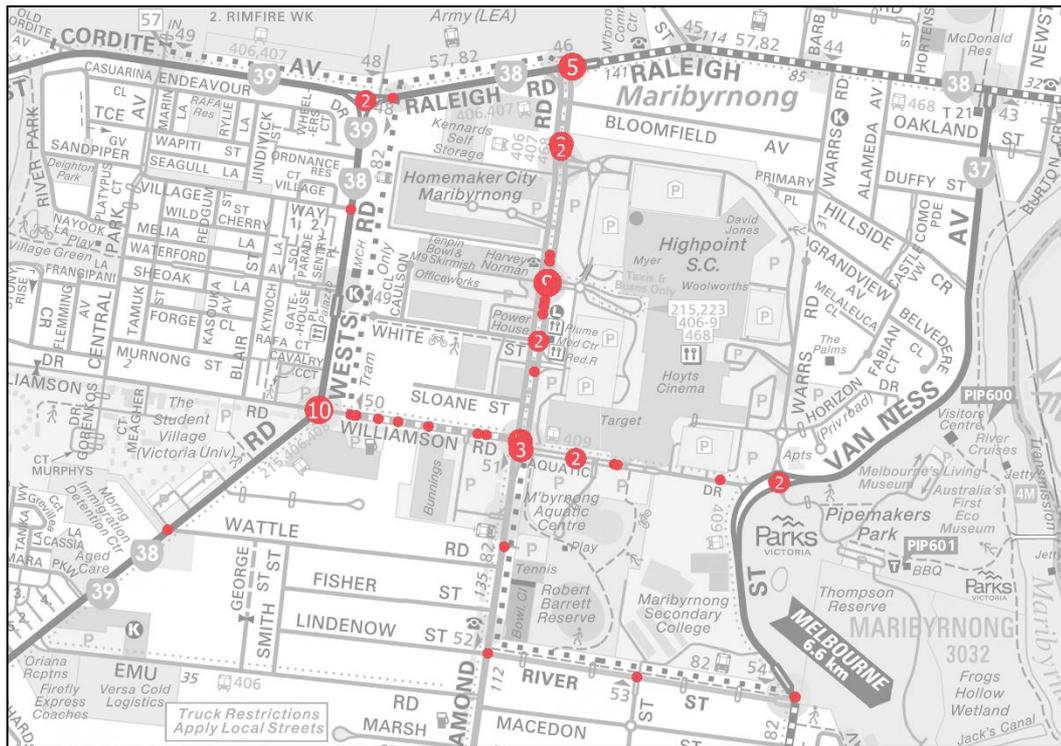


FIGURE 4: CASUALTY CRASH HISTORY MAP

Crash hotspots were observed at the following locations:

- Wests Road/Hampstead Road intersection;
- Rosamond Road/Williamson Road and Aquatic Drive intersection;
- Mid-block along Williamson Road between Wests Road and Rosamond Road; and
- Rosamond Road/Highpoint Shopping Centre access intersection (located approximately 100m north of White Street).

The locations of recorded fatal, serious injury and other injury crashes involving cyclists and pedestrians are summarised in **Figure 5**.

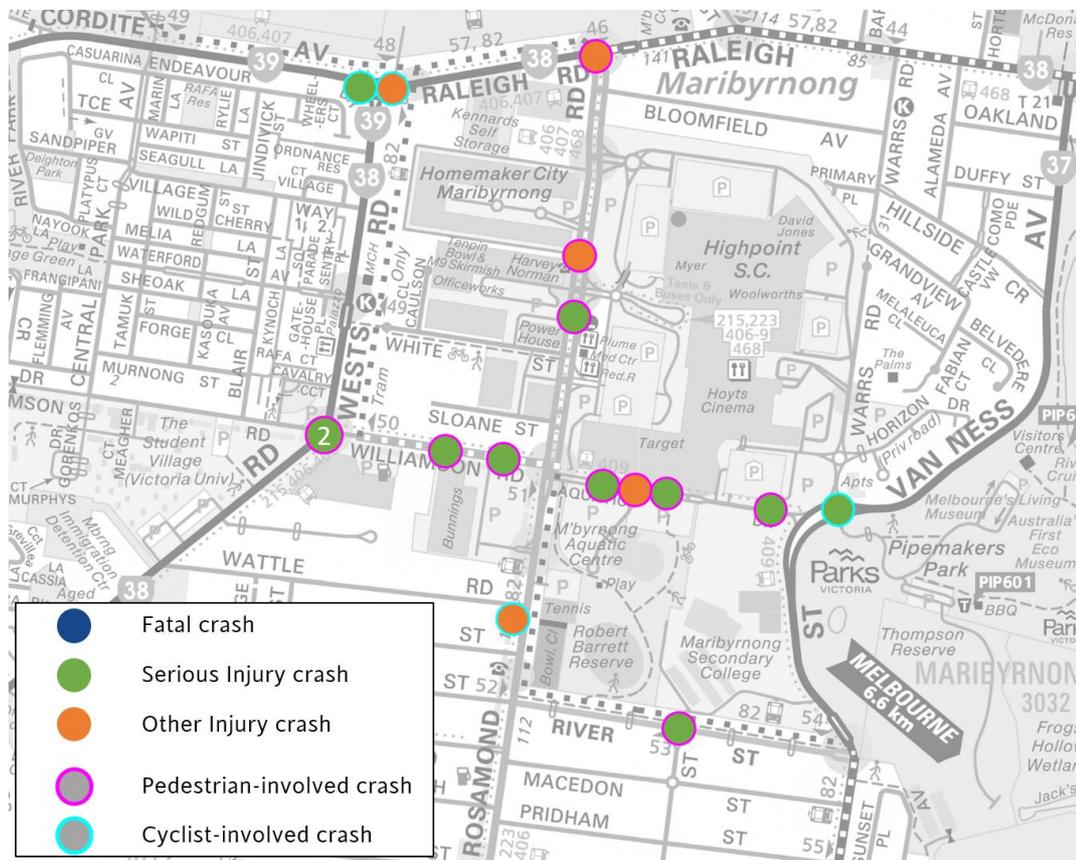


FIGURE 5: CASUALTY CRASH HISTORY MAP - PEDESTRIAN AND CYCLIST CRASHES ONLY

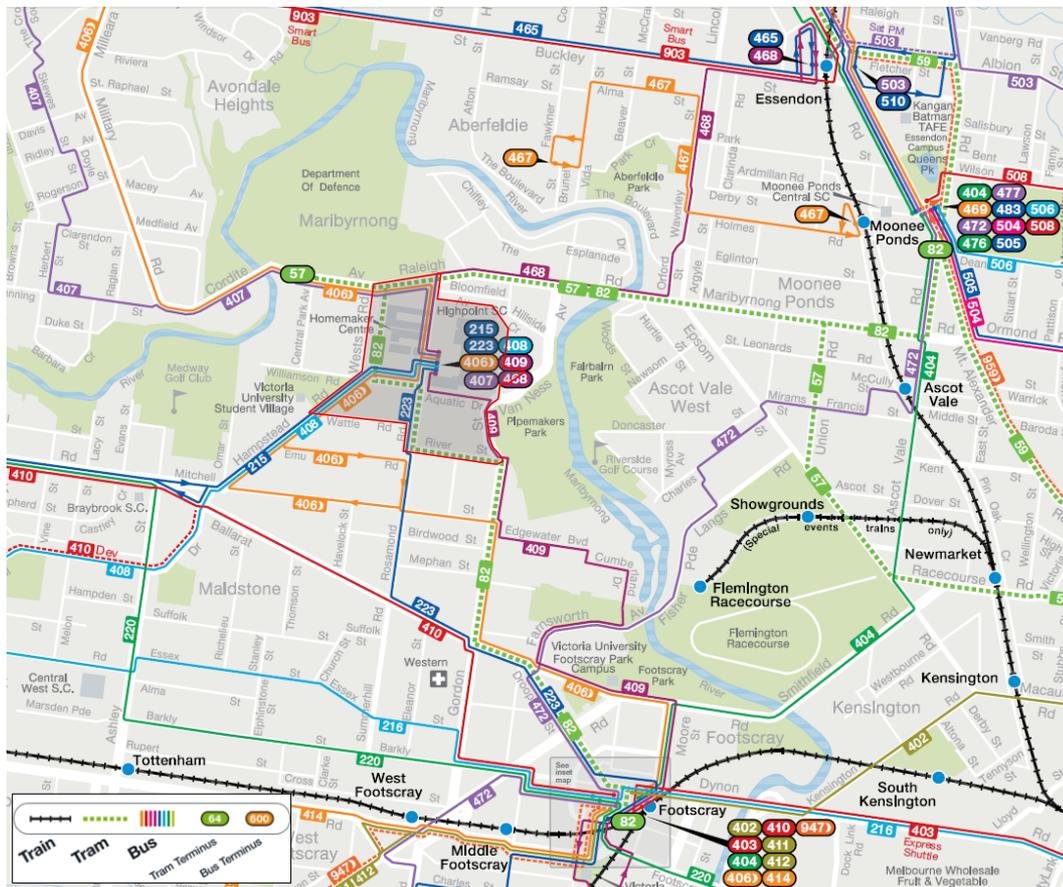
A significant number of pedestrian crashes were observed along Williamson Road between Wests Road and Rosamond Road, and along Aquatic Drive between Rosamond Road and Van Ness Avenue.

Two cyclist crashes were observed at the Raleigh Road / Wests Road intersection.

2.1.4 Sustainable Transport

Public Transport

The public transport services in the vicinity of the subject site are shown in **Figure 6**. It is apparent that the study area has very good access to public transport services and that the Highpoint Shopping Centre already provides a bus terminal and transfer station function for the many bus routes servicing the region.



SOURCE: PUBLIC TRANSPORT VICTORIA (PTV) WEBSITE

FIGURE 6: PUBLIC TRANSPORT SERVICES

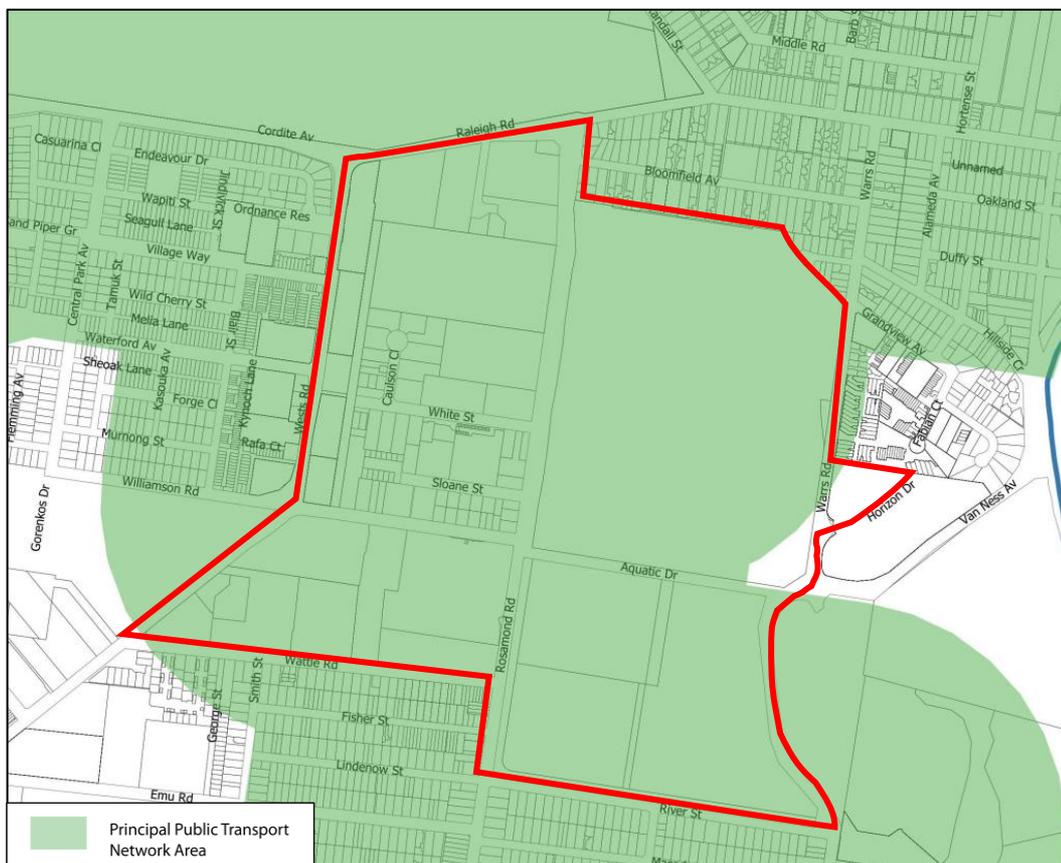
Two tram routes and seven bus routes operate adjacent to and/or within the study area.

The tram and bus services provide connectivity to various other bus routes and railway stations in the vicinity of the site including Essendon, Ascot Vale, Footscray, Moonee Ponds and Sunshine stations.

The frequency of most of these public transport services is good during the peak periods but significantly less frequent during off-peak times. It is also noted that some services do not operate after 10pm on weekdays and/or Saturday or after 7pm on Sunday. Train services operate almost 24 hours on the weekend but tram and bus services connecting the area to the train do not.

Improved frequency and operating hours would be required to improve reliance of these services and encourage mode shift away from private vehicle use.

As shown in **Figure 7** the Principal Public Transport Network applies to all properties within HMAC. Therefore, the Column B parking rates in Table 1 of Clause 52.06-5 of the Planning Scheme apply to new uses (listed in the table).



SOURCE: PLANNING.VIC.GOV.AU

FIGURE 7: PRINCIPAL PUBLIC TRANSPORT NETWORK WITHIN THE ACTIVITY CENTRE

Bicycle Network

The bicycle network in the vicinity of the subject site is shown in **Figure 8**.

There are various existing on and off-road paths within and in the vicinity of the site, the most notable being the Maribyrnong River Trail to the east. The Maribyrnong Bicycle Strategy 2020 – 2030 proposes future bicycle routes including;

- to the south along Gordon Street and through Robert Barrett Reserve, and
- an east west route along Williamson Road and Aquatic Drive.

In addition to the above the Draft Highpoint Infrastructure Masterplan anticipates various additional paths within existing and proposed street reservations within the HMAc. These include the western tram corridor, Rosamond Road, and Warrs Road ring road to the north and east of the Highpoint shopping centre.

Improved bicycle infrastructure will be important to facilitate a modal shift to reduce car parking demand/reliance.

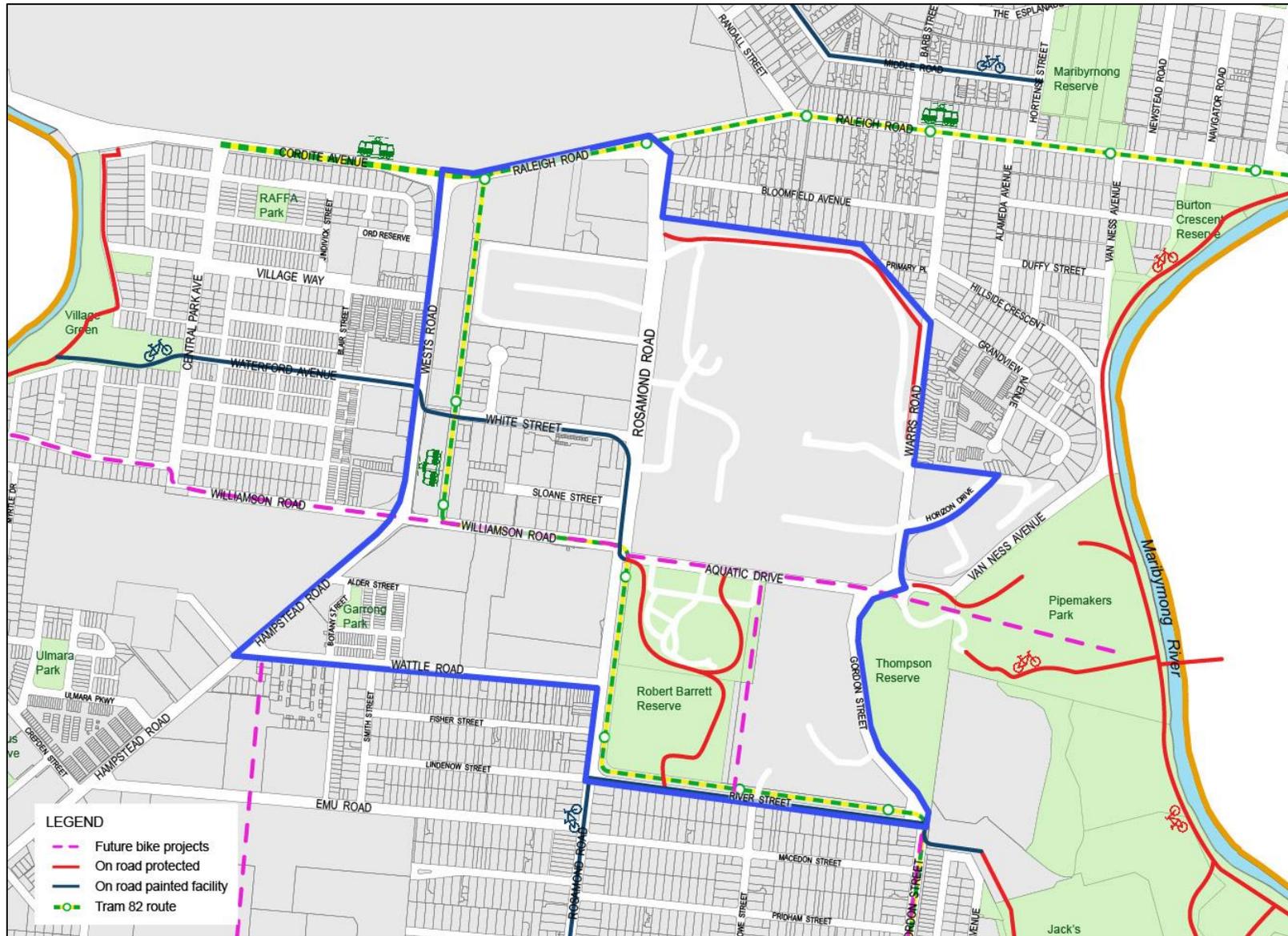


FIGURE 8: BICYCLE NETWORK

2.2 SUPPORTING STRATEGIC DOCUMENTS

The HMAc is anticipated to have significant population and commercial growth over the next 20 years. Council has undertaken strategic work for the HMAc, including:

- Highpoint Activity Centre Structure Plan 2008;
- Highpoint Planning and Urban Design Framework 2016; and
- Draft Highpoint Infrastructure Masterplan Detailed Plan Report (August 2020), Issues and Opportunities Report (February 2020), and Traffic Modelling – Technical Memo (September 2020).

The **Highpoint Activity Centre Structure Plan 2008** objectives include providing for growth and change in the HMAc long term – over the next 20 years. This includes encouraging and facilitating higher density commercial and residential development supported by improved public realm, pedestrian and cycling connections and public transport facilities to allow people to live and work in the HMAc, and increase the use of sustainable transport modes (discouraging travel outside and through the activity centre).

The commercial development would provide employment opportunities in the area to compensate for the declining manufacturing jobs.

The Highpoint Activity Centre Structure Plan 2008, and subsequent analysis, identified reliance on car access, with poor links through the area and widely dispersed locations discouraging walking and cycling.

One of the Strategic Objectives of the Structure Plan is to *Increase the use of sustainable travel modes for access to and circulation around the activity centre by improving walking, cycling and public transport provision and diversifying land use*. The Structure Plan indicates that the ability to ‘unlock’ substantial development in the centre will rely on significantly increasing the share of trips undertaken by sustainable modes. This will include enhancing public transport service levels, and improved/additional facilities to support active transport.

The **Highpoint Planning and Urban Design Framework 2015** (PUDF) sets out the design vision for the future development of the HMAc. This includes objectives and guidelines for the built form, access and movement, and open space. It also includes predicted future demands for residential, commercial and retail growth within various precincts of the HMAc.

Key directions of the PUDF include:

- A vibrant, mixed-use centre with diverse and intensive activities to support a better transport system with more sustainable travel options.
- Great streets for people which includes better connections into and around the activity centre to promote sustainable transport options, especially walking and cycling.

The PUDF indicates the locational advantages of HMAc presents an opportunity to reduce the dominance of traffic and parking on main streets and to prioritise pedestrians, cycling and public transport (i.e. an emphasis on sustainable transport).

The Access and Movement Objectives include:

- *To facilitate a transport mode shift towards walking, cycling and public transport and away from private vehicle travel.*
- *To reduce the impact of traffic congestion.*
- *To minimise impacts of parking on the safety and comfort of pedestrians and cyclists.*
- *To provide sufficient parking to reflect the intensification of activity at the Highpoint Shopping Centre and to maximise opportunities for sharing of parking.* The Parking Design Guidelines of the Access and Movement Guidelines expand further on this stating that consideration should be given to reducing standard parking requirements when parking spaces can reasonably be shared by different uses at different times of the day (i.e. to facilitate sharing of parking between complementary uses where land is in associated ownership, e.g. office during the day and entertainment in the evening, or between retail and residential uses).

The **Draft Highpoint Infrastructure Master Plan** includes traffic modelling of major intersections in the HMAC based on the anticipated future growth/development. The modelling indicates intersections will operate within capacity during typical commuter AM and PM peaks. (It is noted the traffic modelling takes into consideration the modelling undertaken for the nearby Defence Site Maribyrnong.)

However, all intersections would meet or exceed capacity during the Saturday peak. The draft Master Plan recommends that trip suppression measures, such as reduced car parking rates for new development, be explored to contain trip generation to a level that allows the road network to operate within capacity.

Furthermore, the draft Master Plan indicates that parking survey data and analysis shows that, both on a weekday and on a weekend, there is a significant underutilisation of public and private car parks open to the public indicating that lower parking rates may be appropriate for future development.

The draft Master Plan also provides proposed Street Sections. These would result in the reduction of on-street parking along existing streets such as White Street and Sloane Street. However, new on-street parking is proposed along one-side of new streets within private development sites. The overall provision of on-street parking would need to be appropriately managed to discourage long-term parking if reduced car ownership by residential uses and reduced car dependence is to be encouraged.

The Economic Assessment of the draft Master Plan forecasts that future development of the HMAC area (including Highpoint shopping centre) would result in at least 3,110 new apartments by 2041, 40,000 sqm of commercial floor space by 2045 (2,000 sqm of office space per year from 2025 to 2045), and 25,000 sqm of retail space by 2036. The extent of parking provided for these uses particularly, the commercial and retail spaces, would have an impact on the traffic conditions and amenity of the area.

In addition to the above documents, the following relevant strategic documents have been reviewed.

The **Maribyrnong Integrated Transport Strategy 2012 (MITS)** outlines Council's long-term plan to guide development of Maribyrnong's transport network. The Strategy seeks to relieve traffic congestion, reduce transport related greenhouse gas emissions and improve air quality.

A key focus is to minimise the need for vehicle travel and prioritise sustainable travel.

Actions include:

- consider increased on-site bicycle parking requirements for residential uses in multi-unit developments and provision of adequate on-street bicycle parking for visitors,
- consider Planning Scheme amendments to allow reduced parking requirements for non-residential uses subject to the provision of bicycle parking and associated facilities that are in excess of the existing Planning Scheme requirements,
- work with DOT to improve public transport service levels, and
- support harmonisation of service frequencies on different routes (without diminishing existing frequencies).

Policy 3 of the MITS indicates Council supports walking as the mode of choice for the community. One of the issues identified is that more pedestrian-priority space is required in key centres such as Highpoint to improve the walking environment and its connections. Actions include encouraging increased road space allocation for pedestrians, encouraging mixed land use with active street frontages and a walkable scale, and improving the amenity of the walking environment within activity centres. This could be achieved with reduced parking provisions to reduce traffic generation which reduces the potential conflict with traffic and improves the amenity of the area.

Policy 9 of the MTIS indicates that Council Planning Policy will require the provision of secure, undercover bike storage. Lockers and showers in homes workplaces and institutions. One of the actions, 8.5, is to *Amend the Planning Scheme to allow a reduction in the number of car parking spaces required for all non-residential uses, subject to the provision of bicycle parking and associated facilities that are in excess of the existing planning scheme requirements.*

The MITS also recognises that parking supply and demand can be managed to promote access to destinations, while influencing travel modes choices that promote sustainable outcomes. This includes strategies that discourage long-term commuter parking, and provide short-term parking in support of delivery vehicles, service vehicles and customers/shoppers.

Policy 26 of the MTIS indicates that Council will support the expansion of car sharing in Maribyrnong. Actions include supporting the provision of at least one car sharing space being installed on-street adjacent to all new high density residential and commercial developments. The use of car share has increased since this policy was prepared in 2012. There is opportunity to significantly increase the number of car share vehicles provided per development, particularly on-site, to justify reduced on-site parking provision/requirements for residential developments.

The preparation of an Integrated Transport Strategy for North Maribyrnong was recommended by the Highpoint Activity Structure Plan as part of an objective of fostering the use of sustainable travel modes for access to and circulation around the Activity Centre (by improving walking, cycling and public transport provision and diversifying land use). The **Northern Maribyrnong Integrated Transport Strategy 2012 (NMITS)** identifies the likely transport requirements associated with the staged development of HMAc. It recognises the future role of active travel modes servicing HMAc as a means of reducing private vehicle travel.

Medium term recommendations of the NTIS include:

- Introducing real-time parking guidance systems which directs motorists to car parks and hence reduces avoidable vehicle circulation within the centre;
- Continuing to promote car sharing in the centre through car share operators; and
- Preparation of a Parking Precinct Plan which includes car parking maximums for the HMAc rather than minimums.

It is however noted that the NTIS indicates that parking maximums would be dependent on improvements to public transport services and therefore recommended *that a parking precinct plan is introduced either in tandem or following the completion of the public transport works.*

The **Maribyrnong Climate Emergency Strategy 2020-25** is a guiding document providing a framework for Council to address climate emergency. With one of the key priority areas being transport in order to prioritise zero emission and sustainable transport, support transition to electric vehicles and phase out fossil fuel powered vehicles, which include:

- Discouraging unnecessary travel (e.g. reduced car use, encourage working from home, and shopping locally);
- Encouraging zero emission and sustainable transport; increase electrical vehicle fleet;
- Requiring new developments to support zero greenhouse gas emissions transport including bikes, to discourage car dependency and private car use;
- Considering Plan Melbourne principles in urban planning and projects to transition existing neighbourhoods to neighbourhoods where residents live, work and play locally, which supports sustainable and active transport options; and
- Improving cycling infrastructure and pedestrian pathways, including safety and connectivity to provide alternatives to private car use and fossil fuelled public transport.

The **Maribyrnong 2040: Community Plan** is an overarching strategic document that will be used to inform future strategic directions of Council and can be used by the wider community to guide civic participation and engagement. The Community Plan is guided by five themes which include:

Theme 2 – Living Well which includes improving air quality by measures such as:

- *encouraging active transport such as walking, cycling, and public transport, and*
- *encouraging low emissions transport*

Theme 5 – Linking People and Places which includes improving how the community gets around, such as:

- *providing plenty of safe walking and cycling options, combined with public transport system to enable residents to access most of their daily needs within twenty minutes walking distance,*
- *strengthen transport connections into the city, including ensuring quick rail links and improved cycling routes,*
- *ensuring public transport options are accessible and affordable for all,*
- *ensure access to car sharing arrangements, and*
- *consider the liveability of the local setting in the design of transport infrastructure, including pedestrian-centric lights and reduced traffic speed limit within built up areas.*

The community indicated that the way they move around the municipality - in cars, on foot, or by bicycle - is an important consideration for the future.

The community is keen to see investment in the provision and maintenance of active transport infrastructure, including wider footpaths, safer cycling lanes and a commitment to ongoing maintenance of infrastructure, to help get around the city and to and from public transport.

Reliability, cost and safety of public transport are also important to the community.

The **Council Plan – 2021-2025** continues the same community sentiments as the Maribyrnong 2040: Community Plan. That is, that the community's key priorities include:

- *managing trucks on the road network and cleaning up the air,*
- *encouraging active transport through the provision of safe, well-connected wider and greener walking and cycling paths, and*
- *improved transport connections – better bus routes and more frequent trams.*

The community has also indicated having less trucks and traffic on the roads is a priority, with the resulting improved air quality outcomes.

Clause 21.09 – Transport of the Maribyrnong Planning Scheme sets out various strategies to support and promote public transport, cycling and walking, and sustainable transport, and to develop a safe, efficient and accessible transport network. Strategies include:

- *Encourage the use of public transport in new developments.*
- *Provide better transit facilities within and connecting the activity centre network.*
- *Support additions to the public transport network.*
- *Provide for public transport to connect with the planned new activity centres, including to potentially extend the tram route to the future activity centre within the Maribyrnong Defence Site.*
- *Encourage walking and cycling access to new developments.*
- *Encourage end of trip facilities, such as bike racks and signage, to be provided in new developments.*
- *Improve access into activity centres from surrounding areas particularly in relation to pedestrian and cycling routes and links with public transport.*
- *Support car parking dispensations for developments well served by the Principal Public Transport Network and that prepare and implement Green Travel Plans.*
- *Support car park dispensations for developments under 100sqm in floor area.*
- *Support provision of shared car parking in new development.*

Clause 21.11-2 – Local Areas, Highpoint Activity Centre of the Maribyrnong Planning Scheme sets out the vision for the activity centre which will feature sustainable transport options, including a well-connected network of pedestrian and cycle paths and a more useable and accessible public transport network, to decrease the current reliance on car access.

- *A safe, welcoming and legible network of green open spaces and streets that fosters healthy lifestyles and improved environmental performance*

While the area will retain and upgrade its role as a regional destination shopping centre and bulky goods centre, the light industrial areas of the centre will gradually be replaced with more intensive land uses including residential, professional services and offices, as well as enhanced retail, entertainment, community and recreational premises.

This Clause sets out the overall objectives and strategies for the Centre and specific strategies that apply in each precinct. The Framework Plan for the Highpoint Activity Centre illustrated in this Clause shows the seven precincts within the Centre.

Strategies and objectives include:

- *Facilitate sharing of parking between complementary uses on land in associated ownership and locate parking to minimise its impact on streets and public spaces.*
- *Reduce the visual impact and heat island effects of parking areas.*
- *Support wrapping of parking structures with other active uses on street frontages, where practicable.*

- *To create a well-connected, safe and attractive road, pedestrian and cycle network that promotes a mode shift to sustainable transport modes and is part of a high quality public realm.*
- *To facilitate a transport mode shift towards walking, cycling and public transport and away from private vehicle travel.*
- *To minimise impacts of parking access on safety and comfort of pedestrians and cyclists.*
- *Minimise traffic congestion through measures including traffic calming, intersection upgrades and public transport priority treatments.*
- *Provide adequate parking and maximise opportunities for sharing of parking between complementary uses on land in associated ownerships.*
- *To ensure that the seven precincts within the Highpoint Activity Centre are designed and managed to contribute to its evolution as a vibrant mixed use centre enjoying access to sustainable transport options, high quality streets, open spaces and community infrastructure, and excellent environmental performance.*

The **Maribyrnong Bicycle Strategy 2020-30** establishes the City's vision to increase cycling within the municipality as one means to alleviate some of the challenges of the currently stressed transport system (heavy dependence on motor vehicle travel, long queues, unpredictable journey times and difficulty finding convenient parking). It envisions its residents (regardless of age, gender and ability) regularly using bicycles as a safe means of transport, especially to access schools, shops, train stations and community facilities. The Council is investing in an ongoing change transformation of the city's roads and public spaces to achieve the following outcomes:

- Safe and improved conditions for bicycle riding, including routes and areas separated from vehicles;
- Safer vehicle speeds – 30km/h; and
- Fewer vehicles on the roads.

The above would assist in encouraging a mode shift from the private vehicle.

The Strategy considers changes to Planning Scheme requirements to establish positive outcomes for public transport, walking and cycling. This includes higher bicycle parking rates for developments e.g. 2 spaces per dwelling rather than 1 space for every 5 dwellings for residents (i.e. greater bicycle storage and end of trip facilities).

The **Maribyrnong Street Tree Planting Strategy 2013** establishes the framework for the coordinated long term planning management of the City's Street tree population, and aims to help residents, local businesses and developers understand the value of the street tree network and Council's vision for a greener more liveable Maribyrnong.

The strategy indicates trees are to be planted in cut outs in the road where nature strips are too narrow or where there are no nature strips. This could have an impact on the supply, availability and/or retention of public on-street parking should trees be provided within the parking lanes of the street sections proposed within the Draft Highpoint Infrastructure Master Plan.

The **Maribyrnong Housing Strategy 2011** identifies what types of housing should be provided to support the Maribyrnong's growing and changing population, and seeks to ensure that dwellings meet the needs of future residents and that future housing is appropriately located throughout the City. The strategy identifies HMAc as a *Substantial Change* area suitable for housing growth as it is an activity centre close to public transport, community and public facilities, employment opportunities and public open space.

It also identifies the need for affordable housing. The cost of housing could be reduced if a parking space is not bought with a dwelling.

The **Parking Management Policy 2017** provides principles to guide parking attractiveness in the city for residents, businesses, workers and visitors. Appropriate parking management will guide people's choices in travel mode and travel behaviour.

The **Residential Parking Permit Policy 2014** aims to ensure that residents have a reasonable opportunity to a car parking space in proximity to their premises whilst balancing increased parking demands and community expectations.

The Policy acknowledges that demand on parking availability in local residential streets across the municipality continues to increase due to a number of key factors, including:

- Higher density residential development;
- Greater commuter numbers seeking all day parking to use the public transport system, particularly rail.
- More affordable and increasing car ownership;
- Higher on street parking demands from Western Hospital and Victoria University patrons, staff and students; and
- Increasing parking demands in residential streets adjacent to shopping and activity centres.

The policy currently allows residents of multi-unit residential developments in the HMAc to obtain 2 residential parking permits per dwelling. If this continues to be the case reduced car ownership, and use, may not to be achieved.

However, it is noted that Conditions 11 and 13 of the Policy's *Conditions of Permit Issue* indicate that permits are not valid in designated shopping strips areas (activity/commercial areas) which are those streets with shops, business and other commercial premises located on them. Therefore, the use of residential parking permits within the mixed use and commercial areas of the HMAc will depend on the uses along the existing and new streets. If all street frontages are to have a commercial/retail use the policy would ideally be updated to simply exclude all new residential development within the HMAc from the residential parking permit policy and also existing dwellings when change in ownership or tenancy occurs. This would make sure that there is no miss-interpretation of where the permits could be used.

2.3 EXISTING PARKING ISSUES / CONCERNS

A review of Council's records for parking related matters within the study area for the last 24 months indicates that concerns typically relate to illegal parking and the availability of parking in some areas.

Illegal parking concerns typically relate to illegal parking within disabled spaces and overstaying of short-term parking restrictions particularly within the Highpoint shopping centre and the Maribyrnong Aquatic Centre (MAC) car parks.

Council parking infringement data indicates that approximately 80 percent of violations relate to motorists overstaying in parking spaces to which time-based restrictions apply (i.e. parking for longer than permitted).

The next highest violation (approximately 10 percent) was issued for drivers parking in disabled parking spaces without a disabled parking permit.

Concerns also relate to the availability of parking at the MAC at peak times. Cycling to the centre is encouraged however the level of lighting along paths surrounding MAC is an issue for people attending the centre, particularly early in the morning and in the evenings. The theft of bikes from the front of the centre is also a concern. A secure bicycle storage area would ideally be provided.

A number of traders in the area have complained about lack of all-day parking forcing them to move cars mid-shift and have requested to consider the supply of more permit parking for workers.

2.4 EXISTING CAR OWNERSHIP – ABS CENSUS DATA

2.4.1 Highpoint Major Activity Centre Car Ownership Data

To ascertain existing car ownership characteristics within the study area, a review of Australian Bureau of Statistics (ABS) Census data was undertaken.

The 2021 data indicates the occupants of most 1 and 2-bedroom apartments within the activity centre own 1 car, and that 25 to 27 percent of 2-bedroom apartments own 2 cars. Only a very small percentage do not own a car.

The data also shows that in 2016 the occupants of all 3-bedroom apartments owned 2 cars and that this reduced by 33 percent in 2021 with 8% owning no car, 48% owning 1 car and 11% owning 3 cars.

It is noted that the above data only includes those dwellings within the HMAc which were constructed and occupied prior to the census being undertaken. At the time it would have consisted of residential and mixed-use developments along the east side of Wests Road.

2.4.2 Car ownership of surrounding residential development

Given the relatively small sample size of dwellings in the HMAC additional car ownership data was extracted for various residential areas adjacent to the study area. This includes the Edgewater precinct, Hampstead Road precinct and west of Wests Road.

The 2021 Census data for the surrounding areas is similar with that of the study area. That is:

- the occupants of most 1 and 2-bedroom apartments own 1 car and about 25 percent of 2-bedroom apartments own 2 cars. Only a very small percentage do not own a car; and
- the occupants of approximately 35 – 45 percent of 3-bedroom apartments own 1 car and 40 to 60% own 2 cars (with the exception of the West Road area where 73% own 2 cars).

The data indicates a reduction in car ownership by occupants of 3-bedroom apartments has occurred but the same has not occurred for car ownership rates associated with 1 and 2-bedroom apartments in the study area. While reduced parking requirement provisions, by way of Planning Scheme requirements will be one option to do so it is unlikely to be successful without significant improvements to and reliability of active and sustainable transport modes, tighter public parking controls, provision of alternative car use (e.g. ride share and car share facilities), and increased on-site bicycle parking provisions.

2.5 PARKING SURVEYS – EXISTING PARKING CONDITIONS

O'Brien Traffic commissioned car parking occupancy and duration of stay surveys of all public on-street and off-street car parking, and private/commercial car parking spaces which are accessible to the general public, within the study area.

The surveys were completed at 1-hour intervals during the following periods:

- 7am to 9pm, Thursday 15 June 2023; and
- 7am to 9pm, Saturday 17 June 2023.

Parking surveys were undertaken for each of the 7 sub-precincts as identified in **Figure 1**.

The survey results for each precinct are summarised in **Table 1**. The results in **Table 1** indicate the peak occupancy for each precinct and the time at which it occurred, and the same for each area within each precinct.

PRECINCT	PEAK OCCUPANCY						
	AREA	SUPPLY		OVERALL PRECINCT		BY AREA	
				THU	SAT	THU	SAT
				15/06/2023	17/06/2023	15/06/2023	17/06/2023
1	Wests Road (on-street)	61 spaces	84 spaces	33% 11am-12pm	23% 10am	11% 12pm	18% 11am, 2pm, 7pm
	No. 6 Wests Road (off-street)	23 spaces				100% 4pm	39% 10am
2	Raleigh Road (on-street)	0 spaces	3 spaces	33% 7am-8pm	66% 8am-9am	-	-
	Rosamond Road (on-street)	3 spaces				33% 7am-8pm	66% 8am-9am
3	No. 179 Rosamond Road (off-street)	376 spaces	782 spaces	28% 4pm	49% 3pm	24% 1pm	44% 3pm
	No. 169 Rosamond Road (off-street)	284 spaces				40% 4pm	64% 3pm
	No. 167 Rosamond Road (off-street)	61 spaces				26% 3pm	43% 2pm
	White Street – North Side (on-street)	56 spaces				46% 4pm	52% 9am
	Rosamond Road – West Side (on-street)	5 spaces				0%	0%
4	White Street – South Side (on-street)	25 spaces	222 spaces	53% 12pm	52% 1pm	32% 4pm-5pm	20% 10am & 1pm
	No. 159-163 Rosamond Road & 2-6 Sloane Street (off-street)	145 spaces				68% 12pm	72% 2pm
	Sloane Street – North Side (on-street)	11 spaces				55% 7am-8am & 11am-12pm	36% 8am & 1pm
	Sloane Street – South Side (on-street)	22 spaces				41% 9am & 11am	23% 7am-8am & 11am
	Rosamond Road (on-street)	19 spaces				0%	0%
5	No. 98-104 Hampstead Road (off-street)	204 spaces	777 spaces	33% 11am	51% 1pm	34% 11am-12pm	89% 1pm-2pm
	No. 9-15 Williamson Road (off-street)	412 spaces				40% 1pm	48% 1pm

PRECINCT	AREA	SUPPLY	PEAK OCCUPANCY				
			OVERALL PRECINCT		BY AREA		
			THU 15/06/2023	SAT 17/06/2023	THU 15/06/2023	SAT 17/06/2023	
5	Wattle Road – North Side (on-street)	69 spaces			16% 11am	23% 9pm	
	Wattle Road – South Side (on-street)	64 spaces			28% 8pm-9pm	27% 7am-10am	
	Alder Street – North Side (on-street)	0 spaces			2 vehicles (No Stopping)	1 vehicle (No Stopping)	
	Alder Street – South Side (on-street)	7 spaces			100% 7am-9am & 6pm	100% 4pm & 7pm-9pm	
	Riverlen Street – South Side (on-street)	14 spaces			89% 4pm & 8pm	83% 7am & 3pm-5pm	
	Botany Street – East Side (on-street)	3 spaces			125% 11am	100% 7am (incl. 1 veh in No Stopping)	
	Botany Street – West Side (on-street)	4 spaces			100% 8am-9am & 7pm	100% 7am-8am, 10am, 2pm, 4pm-9pm	
	Orchid Street – East Side (on-street)	0 spaces			4 vehicles (No Stopping)	7 vehicles (No Stopping)	
	Orchid Street – West Side (on-street)	0 spaces			0%	0%	
6	Highpoint Shopping Centre Block A (off-street)	1,338 spaces			50% 2pm	90% 1pm-2pm	
	Highpoint Shopping Centre Block B (off-street)	1,581 spaces	6,763 spaces	62% 1pm	96% 2pm	61% 1pm	99% 2pm
	Highpoint Shopping Centre Block C (off-street)	1,401 spaces			77% 1pm	99% 1pm-3pm	
	Highpoint Shopping Centre	1,093 spaces			64% 1pm	99% 2pm	

PRECINCT	AREA	SUPPLY	PEAK OCCUPANCY				
			OVERALL PRECINCT		BY AREA		
			THU	SAT	THU	SAT	
			15/06/2023	17/06/2023	15/06/2023	17/06/2023	
	Block D (off-street)						
	Highpoint Shopping Centre Block E (off-street)	1,350 spaces			60% 12pm-1pm	93% 2pm	
7	Maribyrnong Aquatic Centre (off-street)	454 spaces	844 spaces	60% 7pm	55% 11am	87% 7pm	92% 3pm
	Robert Barret Reserve (off-street)	48 spaces				79% 7pm	91% 9pm
	Maribyrnong Secondary College (off-street)	165 spaces				66% 9am	25% 11am
	River Street – North Side (on-street)	13 spaces				115% 3pm	0%
	River Street – South Side (on-street)	68 spaces				35% 3pm	23% 5pm
	Rosamond Road – East Side (on-street)	15 spaces				13% 9am-5pm	93% 9pm
	Rosamond Road – West Side (on-street)	11 spaces				9% 12pm-3pm & 5pm	72% 9pm
	Gordon Street – East Side (on-street)	35 spaces				0%	0%
	Gordon Street – West Side (on-street)	35 spaces				0%	0%

Occupancy			
0% - 30%		61% - 70%	
31% - 40%		71% - 80%	
41% - 50%		81% - 90%	
51% - 60%		91% - 100%	

NOTE: PARKING OCCUPANCY ABOVE 100% INDICATES ILLEGALLY PARKED VEHICLES (E.G. IN NO STOPPING RESTRICTION)

TABLE 1: PEAK CAR PARKING OCCUPANCY SUMMARY (OCCUPANCY AS A PERCENTAGE AND THE TIME AT WHICH THE PEAK OCCURRED FOR EACH PRECINCT AND FOR EACH AREA WITHIN EACH PRECINCT)

The results indicate:

- The peak occupancy for each precinct on the surveyed Thursday typically occurred at different times of the day.
- The peak occupancy did not exceed 62% on the surveyed Thursday; this peak occurred at 1pm in Precinct 6, the Highpoint Shopping Centre.
- The next highest peak occupancy of 60% on the surveyed Thursday occurred at 7pm in Precinct 7. This was typically associated with off-street parking at the Maribyrnong Aquatic Centre (MAC), Robert Barret Reserve and Maribyrnong Secondary College (Maribyrnong Sports Academy). It is however noted that at 7pm the MAC car park had a peak occupancy of 87% and the Robert Barret Reserve car park had a peak occupancy of 79%.
- The peak occupancy for each precinct on the surveyed Saturday similarly occurred at different times of the day.
- The peak occupancy on the Saturday occurred at 2pm in Precinct 6 (the Highpoint Shopping Centre); 96% of the car spaces at the shopping centre were occupied at this time.
- The peak occupancy for each of the other precincts did not exceed 55% on the surveyed Saturday however some parking areas within each of the precincts had very high parking occupancies; of note:
 - In Precinct 5 a peak occupancy of 89% at 1 and 2 pm was recorded at 98-104 Hampstead Road, a predominantly restricted retail development with a play centre;
 - In Precinct 5 many of the on-street parking areas within the new residential streets of the Hampstead Park development/subdivision (at 82-96 Hampstead Road) were fully occupied at various different times of the day;
 - The MAC car park in Precinct 7 had an occupancy of 92% at 3pm.

An analysis of the car parking survey results for each Precinct is provided in more detail below.

2.5.1 Precinct 1

Car Parking Supply

Precinct 1 primarily comprises of on-street parking on Wests Road, in addition to a small off-street car park at No. 6 Wests Road. The overall parking supply within the precinct comprises of 84 spaces.

A map of the surveyed areas within Precinct 1 is provided in **Figure 9**.

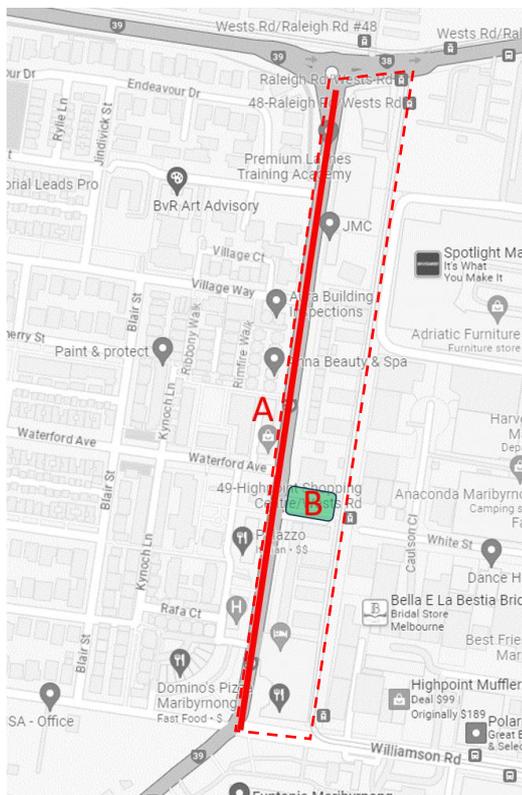


FIGURE 9: PRECINCT 1 - PARKING SURVEY MAP

Thursday 15 June 2023

Within Precinct 1 car parking occupancy primarily peaked between 30% & 35% in the middle of the day (between 11am and 1pm) on the surveyed Thursday. A secondary precinct peak of 30% occupancy was observed at 4pm. Occupancy outside of business hours was observed to be significantly lower.

The Thursday peak car parking occupancy observed for each survey area within Precinct 1 is summarised below:

- Wests Road (on-street): peak occupancy of approx. 11% occurring at 12pm; and
- No. 6 Wests Road (off-street): peak occupancy of 100% occurring at 4pm.

Almost 50% of vehicles were parked for 1 hour or less, likely primarily due to the 1P restrictions along Wests Road and the 2-hour off-street parking at 6 Wests Road. Approximately 15% of vehicles were parked for 8 hours, likely representative of staff parking in the Permit Zone spaces in the off-street car park.

These results indicate that there is an existing surplus for short-term parking within the precinct on a typical weekday, however medium-term (i.e. 2P) and long-term parking availability is more limited, particularly during business hours.

Saturday 17 June 2023

On the surveyed Saturday a peak precinct car parking occupancy of 23% was observed at 10am for Precinct 1. Parking demand in the precinct was lower before 9am and during the afternoon, before slightly increasing in the evening (from 6pm to 7pm).

The Saturday peak car parking occupancy observed for each survey area within Precinct 1 is summarised below:

- Wests Road (on-street): peak occupancy of 18% occurring at 11am, 2pm and 7pm
- No. 6 Wests Road (off-street): peak occupancy of 39% occurring at 10am.

Approximately 46% of vehicles were observed to park for 1 hour or less, again likely primarily due to the 1P restrictions along Wests Road that are in effect on Saturday mornings. This also indicates that there is not significant demand for long-term parking within the precinct on Saturday afternoons (when the on-street spaces on Wests Road are unrestricted). Remaining vehicles were generally parked for 2-6 hours, with minimal demand for longer term parking.

These results indicate that there is typically a surplus of parking within the precinct on a typical Saturday, including long-term parking on Saturday afternoons.

2.5.2 Precinct 2

Car Parking Supply

Precinct 2 comprises on-street car parking along Raleigh Road between Wests Road and Raleigh Road, and along Rosamond Road between Raleigh Road and Warrs Road. A map of the surveyed area within Precinct 2 is provided in **Figure 10**.

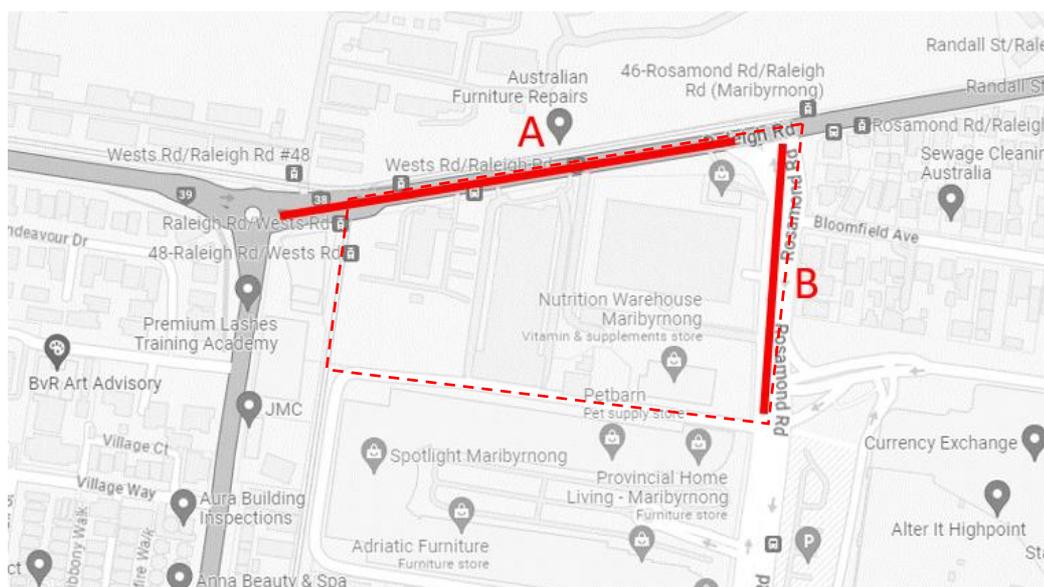


FIGURE 10: PRECINCT 2 - PARKING SURVEY MAP

There are 3 spaces provided on the eastern side of Rosamond Road to the south of Raleigh Road in a parking lane/shoulder area.

Therefore, there is minimal existing on-street parking supply in Precinct 2.

Thursday 15 June 2023

One vehicle was observed to be parked in Precinct 2 between 7am and 8pm.

Saturday 17 June 2023

One vehicle was observed to be parked in Precinct 2 between 7am and 8pm. A second vehicle was parked in the precinct between 8am and 9am.

2.5.3 Precinct 3

Car Parking Supply

Precinct 3 comprises on-street car parking on the western side of Rosamond Road between Warrs Road and White Street, on-street car parking on the northern side of White Street, and off-street car parking located at No.s 167, 169 and 179 Rosamond Road.

The overall car parking supply within the precinct comprises of 782 spaces.

A map of the surveyed area within Precinct 3 is provided in **Figure 11**.



FIGURE 11: PRECINCT 3 – PARKING SURVEY MAP

Thursday 15 June 2023

On the surveyed Thursday a peak precinct car parking occupancy of 28% was observed at 4pm for Precinct 3. Parking demand in the precinct sustained levels of 24% - 27% between 11am and 5pm. Demand for car parking outside of these periods was noticeably lower, particularly in the early morning.

The Thursday peak car parking occupancy observed for each survey area within Precinct 3 is summarised below:

- No. 179 Rosamond Road (off-street): peak occupancy of 24% occurring at 1pm;
- No. 169 Rosamond Road (off-street): peak occupancy of 40% occurring at 4pm;
- No. 167 Rosamond Road (off-street): peak occupancy of 26% occurring at 3pm;
- White Street – North Side (on-street): peak occupancy of 46% occurring at 4pm;
- Rosamond Road (on-street): no parking observed.

Approximately 72% of vehicles were observed to park within Precinct 3 on the Thursday for 1 hour or less. This indicates that the majority of car parking demand is short-stay in nature, most likely by customers of the various retailers in the precinct. An additional 10% of vehicles were observed to park for 2 hours, and remaining vehicles parked for 3-9 hours.

These results indicate that there is typically a surplus in both short-term, 2P spaces (at No. 169 Rosamond Road) and long-term spaces (both off-street and on-street) within the precinct on a typical weekday.

Saturday 17 June 2023

Car parking occupancy within Precinct 3 markedly peaked at 49% at 3pm on the surveyed Saturday. Parking demand was minimal prior to 9am, before steadily increasing throughout the morning and afternoon. Car parking occupancy was observed to decline after 3pm, and significantly reduce from 6pm.

The Saturday peak car parking occupancy observed for each survey area within Precinct 3 is summarised below:

- No. 179 Rosamond Road (off-street): peak occupancy of 44% occurring at 3pm;
- No. 169 Rosamond Road (off-street): peak occupancy of 64% occurring at 3pm;
- No. 167 Rosamond Road (off-street): peak occupancy of 43% occurring at 2pm;
- White Street – North Side (on-street): peak occupancy of 52% occurring at 9am;
- Rosamond Road (on-street): no parking observed.

Approximately 78% of vehicles were observed to park within the precinct for less than 1 hour, and an additional 11% of vehicles for between 1-2 hours. This indicates that the majority of car parking demand within the precinct is short-stay in nature. Remaining vehicles were observed to be parked for 3-9 hours, which is most likely longer term parking demand generated by staff.

These results indicate that there is typically a surplus in both short-term, 2P spaces (at No. 169 Rosamond Road) and long-term spaces (both off-street and on-street) within the precinct on a typical Saturday.

2.5.4 Precinct 4

Car Parking Supply

Precinct 4 comprises on-street car parking on the southern side of White Street, western side of Rosamond Road and on both sides of Sloane Street (parking on the northern side of Williamson Street is not permitted). It also includes off-street car parking at No. 159-163 Rosamond Road & 2-6 Sloane Street.

The overall car parking supply within the precinct comprises of 222 spaces. A map of the surveyed area within Precinct 4 is provided in **Figure 12**.



FIGURE 12: PRECINCT 4 - PARKING SURVEY MAP

Thursday 15 June 2023

On the surveyed Thursday a peak precinct car parking occupancy of 53% was observed at 12pm for Precinct 4. Parking demand in the precinct was observed to be relatively high (40% - 50% occupancy) between 10am and 3pm. Occupancy was observed to be lower (i.e. <25%) between 7am and 8am, and between 6pm and 9pm.

The Thursday peak car parking occupancy observed for each survey area within Precinct 4 is summarised below:

- White Street – South Side (on-street): peak occupancy of 32% occurring at 4pm & 5pm;
- No. 159-163 Rosamond Road & 2-6 Sloane Street (off-street): peak occupancy of 68% occurring at 12pm;
- Sloane Street – North Side (on-street): peak occupancy of 55% occurring at 7am-8am & 11am-12pm;
- Sloane Street – South Side (on-street): peak occupancy of 41% occurring at 9am & 11am;
- Rosamond Road (on-street): no parking observed.

Approximately 58% of vehicles were observed to park within the precinct for less than 1 hour. Remaining vehicles were observed to park within the precinct for varying amounts of time, from 2 hours up to 10 hours.

These results indicate that there is typically a surplus in both short-term (2P) spaces and long-term spaces within the precinct on a typical weekday.

Saturday 17 June 2023

On the surveyed Saturday a peak precinct car parking occupancy of 52% was observed at 1pm for Precinct 4. Parking demand was observed to be minimal at the beginning of the survey period, but increased throughout the morning. Parking demand decreased through the afternoon, with no occupancy observed after 7pm.

The Saturday peak car parking occupancy observed for each survey area within Precinct 4 is summarised below:

- White Street – South Side (on-street): peak occupancy of 20% occurring at 10am & 1pm;
- No. 159-163 Rosamond Road & 2-6 Sloane Street (off-street): peak occupancy of 72% occurring at 2pm;
- Sloane Street – North Side (on-street): peak occupancy of 36% occurring at 8am & 1pm;
- Sloane Street – South Side (on-street): peak occupancy of 23% occurring at 7am-8am & 11am;
- Rosamond Road (on-street): no parking observed.

Approximately 78% of vehicles were observed to park within the precinct for less than 1 hour, representing a notable demand for short-term car parking on a Saturday. Other vehicles were observed to park within the precinct for 2-10 hours.

These results indicate that there is typically a surplus in both short-term (2P) spaces and long-term spaces within the precinct on a typical Saturday.

2.5.5 Precinct 5

Car Parking Supply

Precinct 5 comprises on-street car parking along Wattle Road between Rosamond Road and Hampstead Road and on-street within the recently constructed Hampstead Park residential subdivision. It also includes off-street car parking at No. 98-104 Hampstead Road, and No. 9-15 Williamson Road (i.e. Bunnings).

The overall parking supply within the precinct comprises of 777 spaces. A map of the surveyed area within Precinct 5 is provided in **Figure 13**.

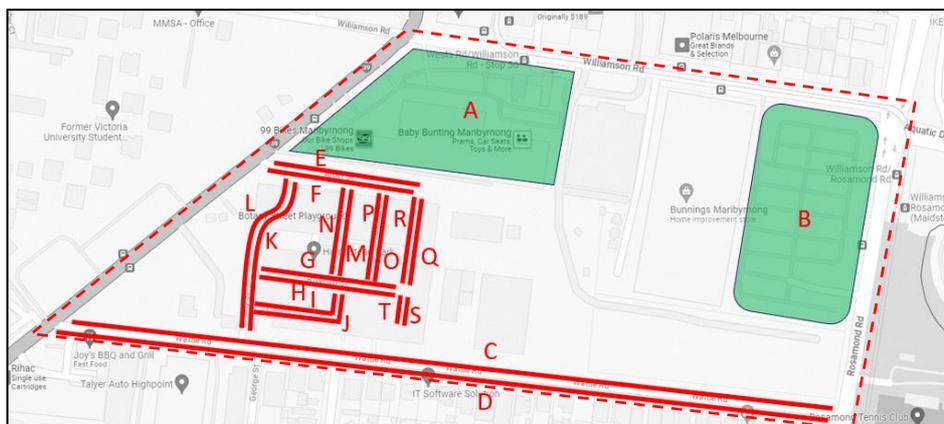


FIGURE 13: PRECINCT 5 - PARKING SURVEY MAP

Thursday 15 June 2023

On the surveyed Thursday a peak precinct car parking occupancy of 33% was observed at 11am and 1pm for Precinct 5. Parking demand was relatively low at the beginning of the survey period and gradually increased throughout the morning before distinctly peaking in the middle of the day. Occupancy was then observed to steadily decline during the afternoon.

The Thursday peak car parking occupancy observed for each survey area within Precinct 5 is summarised below:

- No. 98-104 Hampstead Road (off-street): peak occupancy of 34% occurring at 11am-12pm;
- No. 9-15 Williamson Road (off-street): peak occupancy of 40% occurring at 1pm;
- Wattle Road – North Side (on-street): peak occupancy of 16% occurring at 11am;
- Wattle Road – South Side (on-street): peak occupancy of 28% occurring at 8pm-9pm;
- Alder Street – North Side (on-street): peak occupancy of 2 vehicles occurring at 9am (illegally parked in No Stopping restriction);
- Alder Street – South Side (on-street): peak occupancy of 100% occurring at 7am-9am and 6pm;
- Riverlen Street – South Side (on-street): peak occupancy of 89% observed at 4pm & 8pm;
- Botany Street – East Side (on-street): peak occupancy of 100% observed at 7am & 11am. Up to 2 additional vehicles observed to be illegally parked in No Stopping restriction at 11am & 9pm;
- Botany Street – West Side (on-street): peak occupancy of 100% observed at 8am-9am & 7pm;
- Boxley Lane – West Side (on-street): peak occupancy of 1 vehicle occurring at 8am-12pm & 2pm (illegally parked in No Stopping restriction);
- Orchid Street – East Side (on-street): peak occupancy of 4 vehicles occurring at 9am, 12pm, 5pm & 9pm (illegally parked in No Stopping restriction);
- Orchid Street – West Side (on-street): no parking observed.

Approximately 68% of vehicles were observed to park within the precinct for less than 1 hour, and an additional 9% of vehicles were observed to park for 1-2 hours, representing a notable demand for short-term car parking on a typical weekday. Remaining vehicles parked within the precinct for between 3-10 hours, with a small proportion observed to remain parked for the entirety of the study period (i.e. 15 hours).

These results indicate that there is typically a surplus of off-street car parking and on-street car parking on Wattle Road on a typical weekday.

A considerable number of vehicles were observed to be parked illegally within a No Stopping restriction in the Hampstead Park development, indicating that there may be a shortfall in parking supply in this area.

Saturday 17 June 2023

On the surveyed Saturday a peak precinct car parking occupancy of 52% was observed at 1pm for Precinct 5. Parking demand was observed to be minimal at the beginning of the survey period, but increased throughout the morning. Parking demand decreased through the afternoon, and was observed to be minimal after 6pm.

The Saturday peak car parking occupancy observed for each survey area within Precinct 5 is summarised below:

- No. 98-104 Hampstead Road (off-street): peak occupancy of 89% occurring at 1pm-2pm;
- No. 9-15 Williamson Road (off-street): peak occupancy of 48% occurring at 1pm;
- Wattle Road – North Side (on-street): peak occupancy of 23% occurring at 9pm;
- Wattle Road – South Side (on-street): peak occupancy of 27% occurring at 7am-10am;
- Alder Street – North Side (on-street): peak occupancy of 1 vehicle occurring at 6pm-9pm (illegally parked in No Stopping restriction);
- Alder Street – South Side (on-street): peak occupancy of 100% occurring at 4pm & 7pm-9pm;
- Riverlen Street – South Side (on-street): peak occupancy of 93% observed at 7am & 3pm-5pm;
- Botany Street – East Side (on-street): peak occupancy of 100% observed at 7am-9am, 3pm & 7pm-9pm. Up to 1 additional vehicle was observed to be illegally parked in No Stopping restriction at 7am & 5pm-6pm;
- Botany Street – West Side (on-street): peak occupancy of 100% observed at 7am-8am, 10am, 2pm & 4pm-9pm.
- Boxley Lane – West Side (on-street): peak occupancy of 1 vehicle occurring at 11am (illegally parked in No Stopping restriction);
- Orchid Street – East Side (on-street): peak occupancy of 7 vehicles occurring at 7am-8am, 6pm-7pm & 9pm (illegally parked in No Stopping restriction);
- Orchid Street – West Side (on-street): no parking observed.

Approximately 67% of vehicles were observed to park within the precinct for less than 1 hour, with an additional 14% of vehicles parking for 1-2 hours, representing a notable demand for short-term car parking on a Saturday. Other vehicles were observed to park from 3-9 hours, with a small proportion observed to remain parked for the entirety of the study period (i.e. 15 hours).

These results indicate that there is typically a surplus of off-street car parking and on-street car parking on Wattle Road on a typical Saturday.

It is evident that the Hampstead Park residential subdivision is generating a high demand for on-street parking. A considerable number of vehicles were observed to be parked illegally within No Stopping areas in the Hampstead Park development, indicating that there may be a shortfall in parking supply in this area, parking ownership is higher than anticipated or garages (on-site parking spaces) are being used for other purposes.

2.5.6 Precinct 6

Car Parking Supply

Precinct 6 comprises off-street car parking within Highpoint Shopping Centre, the majority of which is located within multi-level car parks with some at-grade car parking. Precinct 6 also includes on-street car parking on the eastern side of Rosamond Road.

The precinct provides a total of 6,763 car parking spaces. A map of the surveyed area within Precinct 6 is provided in **Figure 14**.



FIGURE 14: PRECINCT 6 - PARKING SURVEY MAP

Thursday 15 June 2023

On the surveyed Thursday a peak precinct car parking occupancy of 62% was observed at 1pm for Precinct 6. Parking demand was low at the beginning of the survey period before steeply rising throughout the mid-to-late morning. Precinct occupancy remained above 48% between 11am-7pm before declining for the remainder of the survey period.

The Thursday peak car parking occupancy observed for each survey area within Precinct 6 is summarised below:

- Highpoint Shopping Centre A Block (off-street): peak occupancy of 50% occurring at 2pm;
- Highpoint Shopping Centre B Block (off-street): peak occupancy of 61% occurring at 1pm;
- Highpoint Shopping Centre C Block (off-street): peak occupancy of 77% occurring at 1pm;

- Highpoint Shopping Centre D Block (off-street): peak occupancy of 64% occurring at 1pm; and
- Highpoint Shopping Centre E Block (off-street): peak occupancy of 60% occurring at 12pm-1pm.

Approximately 45% of vehicles were observed to park within the precinct for less than 1 hour, with an additional 24% parking for 1-2 hours and 11% parking for 2-3 hours. This indicates that a significant proportion of parking demand within the precinct is short-term or medium-term (despite the 4P restrictions that are generally in place). An additional 5% of vehicles were observed to park for 3-4 hours, and the remaining 15% of vehicles were observed to park for 4-10 hours.

These results indicate that there is typically a surplus of car parking available within the precinct on a typical weekday.

Saturday 17 June 2023

On the surveyed Saturday a peak precinct car parking occupancy of 96% was observed at 2pm for Precinct 6. Parking demand was observed to be relatively low in the early morning, before sharply increasing from 10am. Parking occupancy was observed to remain above 80% between 12pm-4pm, highlighting this as the key peak period of car parking demand within the precinct. Precinct car parking occupancy was observed to sharply decline after 5pm.

The Saturday peak car parking occupancy observed for each survey area within Precinct 6 is summarised below:

- Highpoint Shopping Centre A Block (off-street): peak occupancy of 90% occurring at 1pm-2pm;
- Highpoint Shopping Centre B Block (off-street): peak occupancy of 99% occurring at 2pm;
- Highpoint Shopping Centre C Block (off-street): peak occupancy of 99% occurring at 1pm-3pm;
- Highpoint Shopping Centre D Block (off-street): peak occupancy of 99% occurring at 2pm; and
- Highpoint Shopping Centre E Block (off-street): peak occupancy of 93% occurring at 2pm.

Approximately 42% of vehicles were observed to park within the precinct for 1 hour or less, with an additional 26% of vehicles parking for 1-2 hours and 14% of vehicles parking for 2-3 hours. This indicates that a significant proportion of parking demand within the precinct is short-term or medium-term (despite the 4P restrictions that are generally in place). An additional 6% of vehicles were observed to park for 3-4 hours, and the remaining 12% of vehicles were observed to park for 4-10 hours.

These results indicate that car parking within the precinct is at capacity during the early-afternoon (i.e. between 1pm-3pm) on a typical Saturday.

2.5.7 Precinct 7

Car Parking Supply

Precinct 7 comprises on-street car parking on Rosamond Road between Aquatic Drive and River Street, River Street between Rosamond Road and Gordon Street, and Gordon Street between River Street and Aquatic Drive. It also includes the off-street car park at Maribyrnong Aquatic Centre, off-street car park at Robert Barret Reserve, and off-street car park at Maribyrnong Secondary College.

The precinct provides a total of 844 spaces, of which 454 spaces are located at the Maribyrnong Aquatic Centre.

A map of the surveyed area within Precinct 7 is provided in **Figure 15**.



FIGURE 15: PRECINCT 7 - PARKING SURVEY MAP

Thursday 15 June 2023

On the surveyed Thursday a peak precinct car parking occupancy of 60% was observed at 7pm for Precinct 7. Parking demand was relatively low at the beginning of the survey period, however rose to 40%-50% between 9am and 3pm with a secondary peak occurring at 11am. After a decline in occupancy at 4pm, occupancy sharply rose between 5pm and 7pm before declining for the remainder of the survey period.

The Thursday peak car parking occupancy observed for each survey area within Precinct 7 is summarised below:

- Maribyrnong Aquatic Centre (off-street): peak occupancy of 87% occurring at 7pm;

- Robert Barret Reserve (off-street): peak occupancy of 79% occurring at 7pm;
- Maribyrnong Secondary College (off-street): peak occupancy of 66% occurring at 9am;
- River Street – North Side (on-street): peak occupancy of 15 vehicles (i.e. 115%) occurring at 3pm, due to vehicles illegally parking within No Stopping restrictions;
- River Street – South Side (on-street): peak occupancy of 35% occurring at 3pm;
- Rosamond Road – East Side (on-street): peak occupancy of 13% occurring between 9am and 5pm;
- Rosamond Road – West Side (on-street): peak occupancy of 9% occurring between 12pm and 3pm, and at 5pm;
- Gordon Street – East Side (on-street): no parking observed;
- Gordon Street – West Side (on-street): no parking observed.

Approximately 52% of vehicles were observed to park within the precinct for less than 1 hour, with an additional 29% of vehicles observed to park for 1-2 hours. Most remaining vehicles (13%) parked for 3-4 hours, with residual vehicles observed to park for 5-8 hours.

These results indicate that off-street car parking is typically well-utilised during peak periods, with a slight surplus of available spaces (noting that this includes DDA or short-term spaces). There is typically a surplus of on-street car parking within the precinct.

Vehicles were observed to illegally park in No Stopping restrictions along the northern side of River Street at 3pm, despite only 35% occupancy observed on the southern side of River Street at the same time.

Saturday 17 June 2023

On the surveyed Saturday a peak precinct car parking demand of 55% was observed at 11am for Precinct 7. Occupancy was very low at the beginning of the survey period, and rose sharply at 9am before continuing to grow until 11am. Parking demand within the precinct remained relatively high (49%-55%) between 10am and 3pm, before declining from 4pm.

The Saturday peak car parking occupancy observed for each survey area within Precinct 7 is summarised below:

- Maribyrnong Aquatic Centre (off-street): peak occupancy of 92% occurring at 3pm;
- Robert Barrett Reserve (off-street): peak occupancy of 91% occurring at 9pm;
- Maribyrnong Secondary College (off-street): peak occupancy of 25% occurring at 11am;
- River Street – North Side (on-street): no parking observed;
- River Street – South Side (on-street): peak occupancy of 23% occurring at 5pm;
- Rosamond Road – East Side (on-street): peak occupancy of 93% occurring at 9pm;
- Rosamond Road – West Side (on-street): peak occupancy of 72% occurring at 9pm;

- Gordon Street – East Side (on-street): no parking observed;
- Gordon Street – West Side (on-street): no parking observed.

Approximately 55% of vehicles were observed to park within the precinct for less than 1 hour, and an additional 29% of vehicles for 1-2 hours. Remaining vehicles were observed to park within the precinct for 3-6 hours.

These results indicate that off-street car parking is typically well utilised during peak periods (and for the majority of the morning and afternoon at Maribyrnong Aquatic Centre), with only a small surplus of spaces observed at times (noting that this also includes short-term and DDA spaces).

2.5.8 HMAc Overall (All Precincts) Results

Thursday 15 June 2023

The total car parking occupancy within the Highpoint Major Activity Centre (HMAc) across Thursday 15 June 2023 is summarised in **Figure 16**.

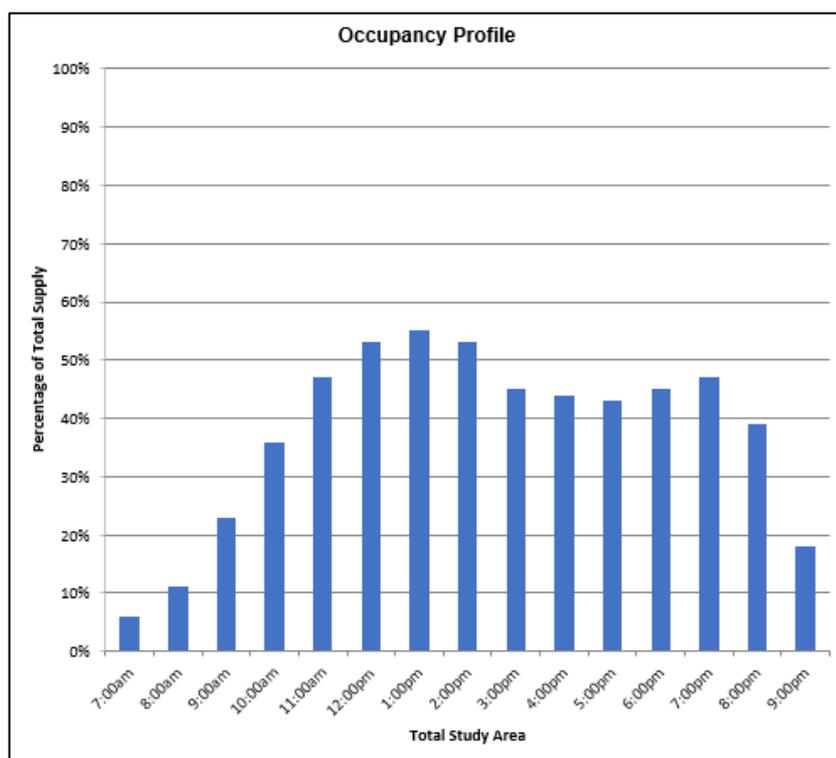


FIGURE 16: HMAc OVERALL CAR PARKING OCCUPANCY (SUPPLY –9,475 SPACES) - THURSDAY 15 JUNE 2023

On the surveyed Thursday an overall peak car parking occupancy of 54% occurred at 1pm within HMAc. This suggests that there is a surplus of car parking within the precinct on a typical weekday, including during observed peak periods of demand.

The occupancy at 1pm on Thursday 15 June 2023 for each precinct is shown in **Figure 17**.

It is evident that while there was an overall occupancy of 54% across HMAC some precincts experienced higher occupancies than others.

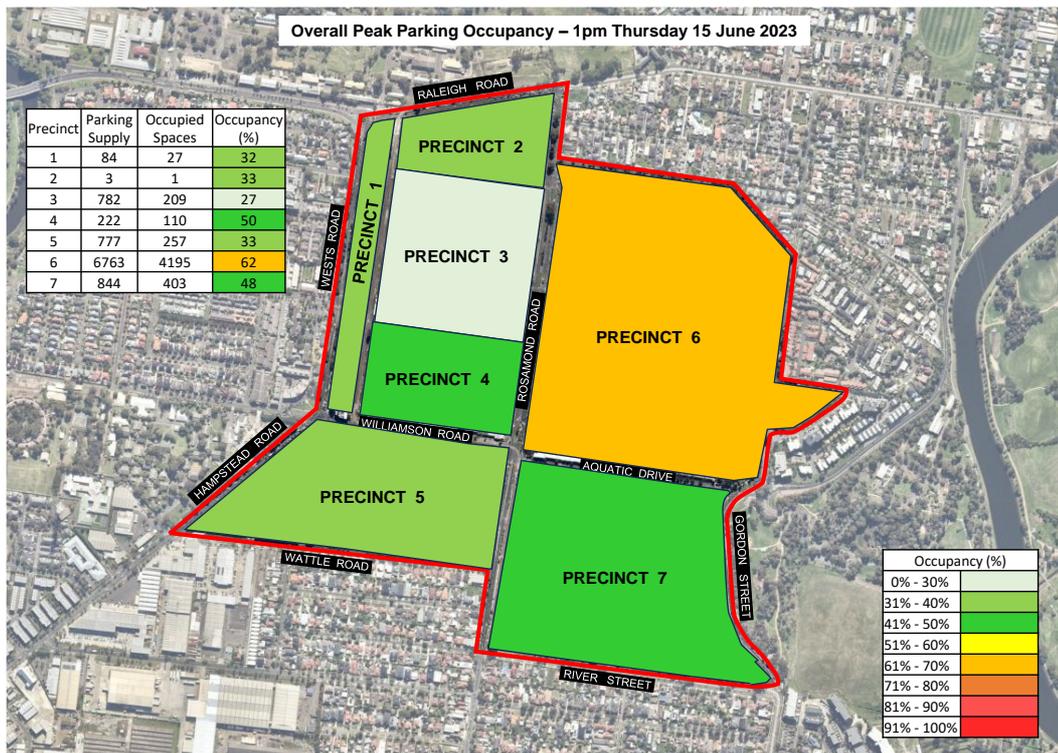


FIGURE 17: HIGHPOINT ACTIVITY CENTRE OVERALL PEAK PARKING OCCUPANCY RESULTS – 1PM THURSDAY 15 JUNE 2023

The observed duration of stay within HMAC across Thursday 15 June 2023 is summarised in Figure 18.

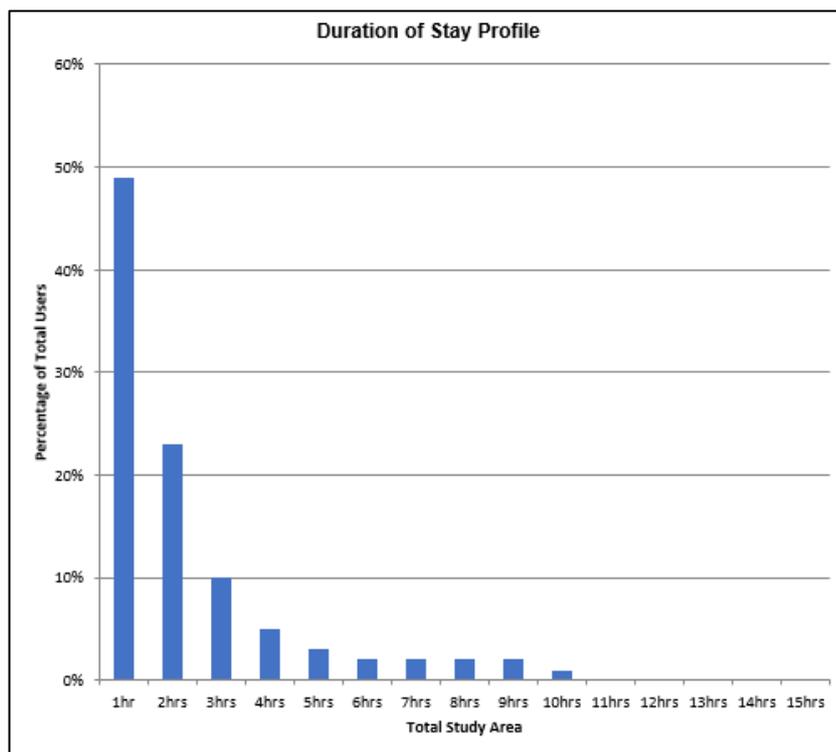


FIGURE 18: HMAC OVERALL DURATION OF STAY - THURSDAY 15 JUNE 2023

On Thursday 15 June 2023, approximately 49% of vehicles were observed to park within the study area for less than 1 hour, with an additional 23% of vehicles parking for 1-2 hours and 10% of vehicles parking for 2-3 hours. This indicates that a significant proportion (82%) of parking demand within the precinct was observed to be short-term in nature (comprising less than 3 hours).

2.5.9 Saturday 17 June 2023

The total car parking occupancy within the Highpoint Major Activity Centre (HMAC) across Saturday 17 June 2023 is summarised in **Figure 19**.

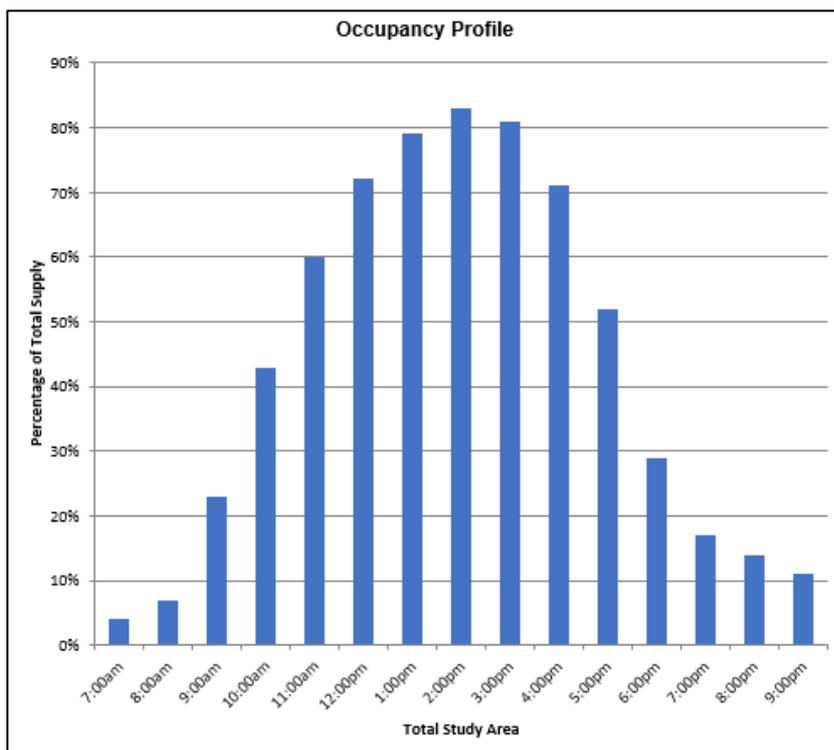


FIGURE 19: HMAC OVERALL CAR PARKING OCCUPANCY (SUPPLY – 9,475 SPACES) - SATURDAY 17 JUNE 2023

On the surveyed Saturday a peak car parking occupancy of 83% occurred at 2pm within HMAC. This suggests that there is a limited surplus of car parking available within the HMAC area during peak periods on a typical Saturday.

The occupancy at 2pm for each precinct is shown in **Figure 20**.

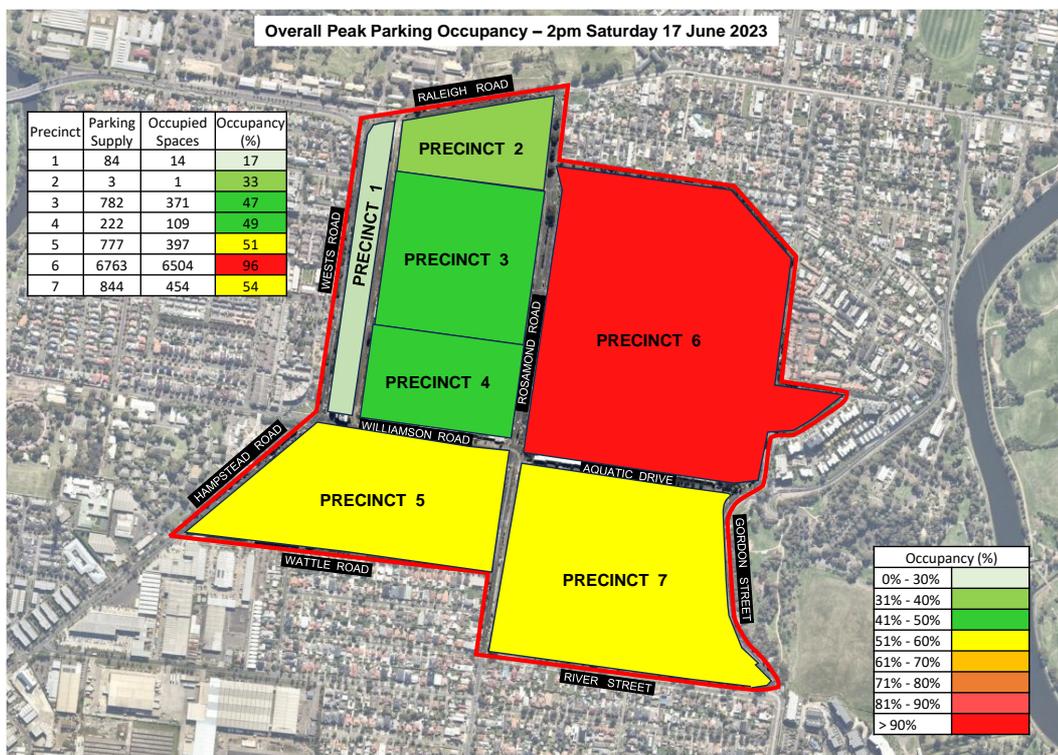


FIGURE 20: HIGHPOINT ACTIVITY CENTRE OVERALL PEAK PARKING OCCUPANCY RESULTS – 2PM SATURDAY 17 JUNE 2023

Observed duration of stay within HMAC across Saturday 17 June 2023 is summarised in Figure 21.

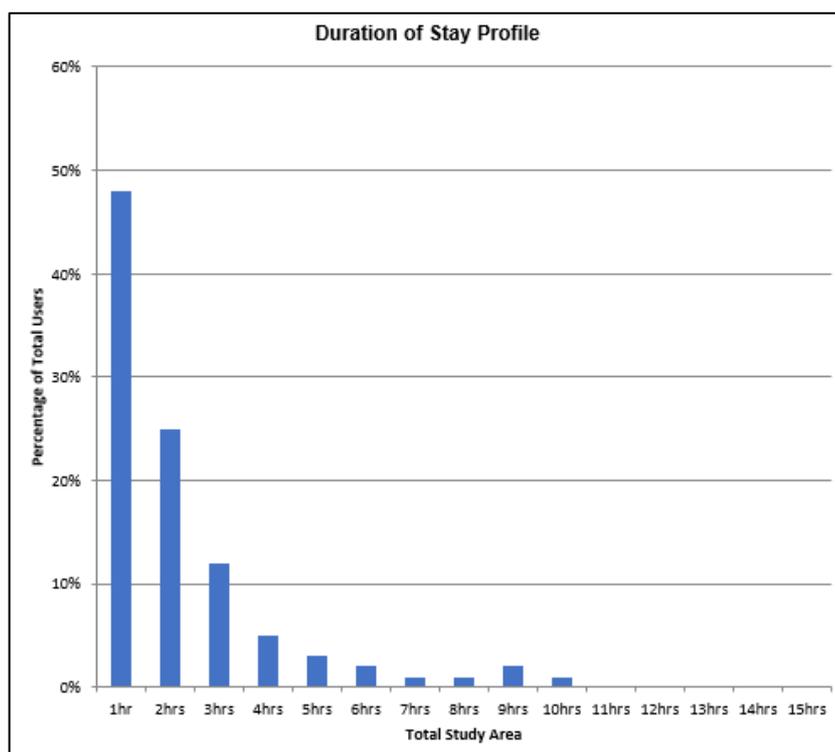


FIGURE 21: HMAC OVERALL DURATION OF STAY - SATURDAY 17 JUNE 2023

On Saturday 17 June 2023, approximately 48% of vehicles were observed to park within the study area for less than 1 hour, with an additional 25% of vehicles parking for 1-2 hours and 12% of vehicles parking for 2-3 hours. This indicates that a significant proportion (85%) of parking demand within the precinct was observed to be short-term in nature (comprising less than 3 hours).

2.6 SITE INSPECTIONS

Site inspections were undertaken at:

- 11am Thursday 15 June 2023;
- 11:30am Saturday 17 June 2023;
- 7pm Thursday 27 July 2023; and
- 6pm Saturday 29 July 2023.

The parking conditions observed during the site inspection within the HMAC confirmed the findings of the parking surveys discussed above.

Evening observations were also made of the parking conditions in the nearby residential developments to the west of Wests Road, the west of Hampstead Road, the south of Wattle Road, and the north and east of Highpoint shopping centre. The following observations were made:

- Very high on-street parking demands are occurring in the vicinity of the existing attached residential developments and apartments to the west of Wests Road and Hampstead Road (e.g. along Blair Street, Waterford Avenue and Crefden Street);
- Similar very high on-street parking patterns were observed in the new residential development at 82-96 Hampstead Road (including within No Stopping areas).
- Parking within the residential area to the south of Wattle Road was relatively low given the substantial majority of properties are still occupied by older single detached houses which typically accommodate more on-site parking.
- Parking to the north and east of the shopping centre was relatively high in those streets with No Stopping restrictions along one side or where there appear to be multi-dwelling developments.

Parking in the residential areas is typically unrestricted which allows residents and their visitors easy access to on-street parking where available.

Should a parking overlay be considered for the HMAC it would be prudent to collect existing parking data in the surrounding road network prior to the overlay being adopted. This would provide baseline data for any future studies and/or parking concerns following mixed use development within the HMAC (e.g. concerns relating to overspill of parking into surrounding streets).

2.7 PARKING DEMAND ASSESSMENT

The parking survey data and the estimated floor areas of various private developments where car parks are open to the public has been analysed to determine the existing parking provision rates and the empirical parking demand for each site.

The assessment has been undertaken for the Highpoint shopping centre and for various restricted retail developments.

The analysis has been undertaken for the peak parking demand for each site which occurs on Saturday (for all sites). The results of the analysis are provided in **Tables 2** and **3**.

PRECINCT	ADDRESS	LAND USE	GROSS FLOOR AREA (APPROX. SQ M)	PARKING SUPPLY (NO. OF SPACES)	PARKING PROVISION (SPACES PER 100 SQ M)	PEAK PARKING DEMAND (NO. OF SPACES)	EMPIRICAL PARKING DEMAND (SPACES PER 100 SQ M)	PEAK PARKING OCCUPANCY	SURPLUS
6	Highpoint Shopping Centre	Retail Premises, Food and Drink Premises, Place of Assembly, Office, Medical Centre, Service Industry, Restricted Recreation Facility	156,000	6,763	4.3	6,504	4.17	96%	4%

TABLE 2: SATURDAY PARKING DEMAND FOR SITES WITH RESTRICTED RETAIL USES

PRECINCT	ADDRESS	LAND USE	GROSS FLOOR AREA (APPROX. SQ M)	PARKING SUPPLY (NO. OF SPACES)	PARKING PROVISION (SPACES PER 100 SQ M)	PEAK PARKING DEMAND (NO. OF SPACES)	EMPIRICAL PARKING DEMAND (SPACES PER 100 SQ M)	PEAK PARKING OCCUPANCY	SURPLUS
3	167 Rosamond Road	Restricted Retail Premises	2,100	61	2.9	26	1.24	43%	57%
3	169 Rosamond Road	Restricted Retail Premises, and Leisure and Recreation	19,000	284	1.5	181	0.95	64%	36%
3	177-179 Rosamond Road	Restricted Retail Premises	21,500	376	1.7	120	0.56	32%	68%
4	159-163 Rosamond Road	Restricted Retail Premises	6,000	145	2.4	104	1.73	72%	28%
5	98-104 Hampstead Road	Restricted Retail Premises, Restricted Recreation Facility and Food and Drink Premises	6,600	204	3.1	182	2.76	89%	11%
Average					2.3		1.4		
Minimum					1.5		0.6		
Maximum					3.1		2.8		

TABLE 3: SATURDAY PARKING DEMAND FOR SITES WITH RESTRICTED RETAIL USES

Highpoint Shopping Centre

Highpoint shopping centre while predominantly consists of retail shops uses also provides a mix of other uses such as places of assembly (e.g. cinema), restaurants, food and drink premises, office, medical centre and restricted recreational facilities (gym).

It is not possible to differentiate the parking demand of one use from the others by the parking occupancy surveys undertaken. It is only possible to determine overall rates for the parking provision and the parking demand of the centre.

As indicated in **Table 2** the centre provides parking at a rate of 4.3 spaces per 100 sqm of retail space based on the provision of 6,763 spaces. It had a peak occupancy of 96% on the surveyed Saturday which equates to an empirical peak parking demand of 4.17 spaces per 100 sqm.

This analysis does not include parking provided at the aquatic centre car park as it is not possible to differentiate between the parking demand for the shopping centre and the aquatic centre. If this car park had been included it would have resulted in slightly higher rates.

Restricted Retail

While it is acknowledged that the Draft Highpoint Infrastructure Master Plan anticipates that restricted retail (bulky goods) uses are unlikely to be reinstated within the activity centre as part of the future development, parking analysis was undertaken for the restricted retail car parks that were surveyed. The current parking provision of these uses would be, in part, replaced by other uses.

The parking analysis indicates the developments with restricted retail developments on average provide parking at a rate of 2.3 car spaces per 100 sq m of gross floor area. The existing average parking provision is just below the Planning Scheme requirement of 2.5 spaces per 100 sq m of leasable floor area for a restricted retail premises located in the PPTN.

On average the restricted retail developments generate a peak empirical parking demand of 1.4 spaces per 100 sq m of gross floor area. This represents a parking occupancy of 60 percent of the overall parking supply across the five sites, hence there is a parking surplus of 40 percent (i.e. parking is oversupplied by 67 percent).

It should be noted only three of the sites are occupied by only restricted retail uses and two of the sites include other uses such as gymnasiums, play centres and tenpin bowling. The three sites with just restricted retail use supply parking at an average rate of 2.4 spaces per 100 sq m and generate an average peak empirical parking demand of 1.2 spaces per 100 sq m of gross floor area. In this case it would tend to indicate that twice as much parking is provided than is required (i.e. parking is oversupplied by 100%).

One of the other two sites, the one at 98-104 Hampstead Road, includes a play centre. This site generated the highest parking demand rate of 2.76 spaces per 100 sq m resulting in a peak occupancy of 89%.

The number of spaces allocated for various uses within approved and proposed town planning applications within the HMAc were also reviewed and are summarised in **Table 4**.

PRECINCT	LOCATION	YEAR & USE	PARKING RATE (NO OF SPACES)					
			1-bed	2-bed	3-bed	Visitor	Retail (spaces per 100 sq m)	Office (spaces per 100 sq m)
2	191 Rosamond Rd	2022 Mixed Use	1	1.01	2			0.7
4	19-21 White St	2022 Mixed Use	1	1	1.54		1.19	
4	7 Sloane St	2021 Mixed Use	0.77	1	1.33		0.51	
4	14-16 Williamson Rd (Surplus of 22 spaces but not allocated to shop)	2019 Mixed Use	1	1	2		0.99	3
5	82-96 Hampstead Rd	2017 Mixed Use	0.5	0.8	1.5 per apartment	0.1	2	3
					2 per townhouse	0.2		
6	41 Warrs Rd (Surplus of 12 spaces for residents, support staff and ancillary uses)	2022 Mixed Use	1	1	2			
<i>Average parking rate</i>			0.88	0.97	1.73		1.17	2.23
<i>Minimum parking rate</i>			0.5	0.8	1.5		0.5	0.7
<i>Maximum parking rate</i>			1	1	2		2	3

TABLE 4: PARKING RATES BEING ADOPTED/PROPOSED BY TOWN PLANNING APPLICATIONS WITHIN HMAc

Most developments proposed to provide parking for the residential and office components of developments in accordance with the requirements of Clause 52.06 of the Planning Scheme for developments within the PPTN. That is:

- 1 space to each one or two bedroom dwelling;
- 2 spaces to each three or more bedroom dwelling; and
- 3 spaces to each 100 sqm of net office floor area.

Within the PPTN Table 1 of Clause 52.06 of the Planning Scheme requires parking to be provided for *Shop other than listed in this table*, and various other retail uses, at a rate of 3.5 spaces to each 100 sq m of leasable floor area. It is clear that most developments propose to provide a lower parking rate for retail uses, typically to only provide on-site parking for staff.

In addition to the above the Highpoint Urban Village Development Plan (that is the Highpoint shopping centre site) proposes the following parking rates.

- Residential – 0.5 spaces per dwelling;
- Office – 0.5 spaces per 100 sq m;
- Retail – 3 to 4 spaces per 100 sq m; and
- Hotel – 0.3 spaces per room.

The Highpoint Urban Village Development Plan rates are lower for residential and office uses than the requirements of Clause 52.06 of the Planning Scheme however the shop rate is approximately the same.

As discussed above, the Draft Highpoint Infrastructure Master Plan forecasts that future development of the HMAc area (including Highpoint shopping centre) would result in at least 3,110 new apartments by 2041, 40,000 sqm of commercial floor space by 2045 (2,000 sqm of office space per year from 2025 to 2045), and 25,000 sqm of retail space by 2036. The parking provision that would be required to accommodate these uses if the Planning Scheme Rates compared to those proposed by current town planning approvals/proposals and the Highpoint Urban Village Development Plan are provided in **Table 5**.

USE	PLANNING SCHEME REQUIREMENT		TOWN PLANNING APPLICATIONS		HIGHPOINT URBAN VILLAGE	
3,110 dwellings Assume 60% 1 and 2-bedroom and 40% 3-bedroom dwellings	1 space per 1 and 2-bedroom dwelling 2 spaces per 3-bedroom dwelling	4,354 spaces	1 space per 1 and 2-bedroom dwelling 2 spaces per 3-bedroom dwelling	4,354 spaces	0.5 spaces per dwelling	1,550 spaces
40,000 sq m of office	3 spaces per 100 sq m	1,200 spaces	3 spaces per 100 sq m	1,200 spaces	0.5 spaces per 100 sq m	200 spaces
25,000 sq m of retail space	3.5 spaces per 100 sq m	875 spaces	1-2 spaces per 100 sq m	250-500 spaces	3-4 spaces per 100 sq m	750 to 1,000 spaces
Total	6429 spaces		5804 – 6054 spaces		2500 – 2750 spaces	

TABLE 5: COMPARISON OF FUTURE PARKING DEMANDS

It is evident that the highest generator of parking is likely to be residential development. Reduced parking rates for the residential component of developments would in turn reduce the traffic generation of this component. However, it must also be acknowledged that car ownership does not necessarily relate to car use. Just because residents own a car it does not mean they will use it for every trip; they may commute to work using alternative modes and use the car on the weekend for trips that may not be readily accessible by alternative modes (e.g. country excursions).

It is also noted that parking provided for retail and office developments could potentially be shared with other uses as office parking demand would usually be higher on weekdays and retail demand would be higher after hours and on weekends.

3 IDENTIFICATION OF ISSUES AND OPPORTUNITIES

3.1 SUSTAINABLE TRANSPORT

Existing Council strategies and policies, as discussed in Section 2.2, reiterate:

- seeking opportunities to reduce the dominance of traffic and parking, and to prioritise and facilitate a transport mode shift towards walking cycling and public transport (away from private vehicle travel), including the provision of safe, well connected wider and greener walking and cycling paths, and improvements to public transport (e.g., improved bus services and increased tram frequency);
- minimising the impacts of parking access on the safety and comfort of pedestrians and cyclists;
- facilitating sharing of parking between complementary uses while providing sufficient parking to reflect the intensification of HMAC, including reducing standard parking requirements especially for developments well served by the PPTN and under 100 sqm in floor area; and
- the community's desire for less trucks and traffic to improve air quality, and to prioritise:
 - more and safer cycling infrastructure;
 - transport connections – better bus routes and more frequent trams; and
 - maximum heights and minimal parking requirements for new buildings.

The strategies/policies recognise that to support reduced parking rates, and to facilitate a mode shift, improvements to public transport and active transport facilities need to be implemented simultaneously with, or desirably prior to, development of the area (i.e., to facilitate and imprint the use of public and active transport by future employees and residents of the area the facilities need to be in place prior to the occupation of the new uses).

However, it is also acknowledged that HMAC can be a neighbourhood where future residents can live, work and play locally if complementary uses are provided. This would help to reduce private car use if facilities for future residents (of HMAC and the immediate area) are provided in walking/cycling distance. This is achievable given that the HMAC is about 1 square kilometre in size, and that the proposed new road and pedestrian links (as proposed by the Highpoint Planning and Urban Design Framework, September 2015) will improve permeability through, and accessibility within, the HMAC for pedestrians and cyclists.

The NMITS indicates travel to and from the HMAC primarily occurs by private vehicles, with the car mode split approximately 88%. It is also noted that through traffic along Rosamond Road only accounts for approximately 17% of traffic on weekdays and approximately 12% of traffic on a Saturday. Therefore, the substantial majority of traffic along Rosamond Road is generated by the uses in the HMAC.

Ideally, mode split by private vehicle would be significantly reduced within and to/from the HMAC.

The HMAc is currently accessible by 2 tram routes and 7 bus routes which also link to various train lines. The frequency of most of these public transport services is good during the peak periods but significantly less frequent during off-peak times. It is also noted that some bus services do not operate after 10pm on weekdays and/or Saturday, or after 7pm on Sunday. Train services operate almost 24 hours on the weekend but tram and most bus services providing connections to/from the nearby train stations do not (with the exception of Bus Route 406).

Improved frequency and operating hours of the public transport services would be required to improve reliance of these services and encourage mode shift away from private vehicle use. Frequency of services could potentially be improved by reviewing existing infrastructure and road space allocated to public transport such as the provision of tram ways and or tram lanes to prioritise trams along Tram Route 82 to/from Footscray Train Station. Other measures could include bus lanes and bus phases at signalised intersection and pedestrian priority at intersections.

A key priority of the Maribyrnong City Council Climate Emergency Strategy 2020 – 2025 is to *Prioritise zero emissions and sustainable transport, support transition to electric vehicles and phase out fossil fuel powered vehicles*. This includes requiring new developments to provide infrastructure to support zero greenhouse gas emissions transport including bikes, to discourage car dependency and private car use. The provision of infrastructure, such as power to all on-site car spaces for vehicle charging, could be a requirement of a design standard for car parking in a Parking Overlay if implemented.

It is also noted that motorcycles use less energy per kilometre than a car. Therefore, motorcycle parking should also be required within new car parks. The Bureau of Infrastructure and Transport Research Economics (BITRE) *The Road Vehicles, Australia January 2023 (June 2023)* report estimates that there were 15,327,612 passenger vehicles and 965,235 motor cycles registered in Australia in January 2023. This equates to approximately 1 motorcycle for every 16 light passenger vehicles registered in Australia.

The report also estimates that in Victoria there were 4,071,957 passenger vehicles and 211,332 motorcycles registered which equates to 1 motorcycle for every 19 passenger vehicles registered in Victoria.

It is recommended that the higher rate of motorcycle parking be provided closer to that of the Australian vehicle registrations. A rate of 1 motorcycle parking space for every 15 car spaces provided on the site should be adopted.

Objective 1

- 1.1. Encourage the use of sustainable, public and active transport by residents, visitors, customers and employees of the HMAC; and
- 1.2. Encourage future residents to reduce private car ownership, reduce travel by private vehicle, and increase travel by public and active transport modes.

Potential Strategies

- 1.1. Advocate to the State Government to improve the frequency of existing public transport services operating within the HMAC; minimum 10 minutes during the peak times and 20 minutes at off peak times. This should include the busy weekend peaks.
- 1.2. Advocate to the State Government to increase the operating hours of bus and tram services operating within the HMAC. This should include weekdays between 6am and midnight, and the weekend between 12am and 6am (i.e., Night Network services).
- 1.3. Advocate to the State Government to provide tramways and/or tram lanes along Tram Route 82 to improve tram priority between the HMAC and Footscray station (where possible/practical).
- 1.4. Consider introducing public and active transport priority at intersections. This could include bus lanes with head starts. Pedestrian head start phases and/or exclusive pedestrian scramble phase could also be considered to allow all pedestrians to cross in all directions at the same time.
- 1.5. Planned bicycle and pedestrian paths, and other infrastructure should be implemented prior to new developments being occupied. This would support and facilitate travel mode shift within the HMAC from day one of occupation.
- 1.6. Require additional on-site bicycle parking provisions in excess of Planning Scheme requirements to support reduced car ownership.
- 1.7. On-site car share spaces/vehicles to provide alternative occasional car use for residents and employees (e.g., for site visits or meetings by office staff).
- 1.8. No unrestricted (long term) parking within HMAC to discourage residents and employees from seeking on-street parking. This may also need to apply to all streets within 400m of HMAC.
- 1.9. Infrastructure should be provided within new developments to support zero greenhouse gas emission transport. This should include the provision of charging points for electric vehicles to all parking spaces (including motorcycles).
- 1.10. Motorcycle parking spaces should be provided within new developments at a rate of 1 motorcycle parking spaces for every 15 car spaces provided on the site. This rate is commensurate to the number of passenger vehicles registered to every motorcycle registered in Australia.

3.2 ILLEGAL PARKING, MARIBYRNONG AQUATIC CENTRE AND ROBERT BARRETT RESERVE

The background study identified that illegal parking, particularly overstaying of parking at the shopping centre and within the Maribyrnong Aquatic Centre (MAC) car park, is an ongoing issue. It is understood that this may be due to current resources and staffing, i.e. the level of enforcement is impacted by the resources/staff available to do so.

The enforcement of parking at the MAC car park and HMAc as a whole should continue to be enforced to encourage drivers to adhere to the parking restrictions which in turn would improve the turn over and availability of parking. This should be aided by parking sensor technology, similar to that in the MAC car park, implemented throughout other areas of the activity centre Council undertakes enforcement, (including the Highpoint shopping centre). Revenue from parking infringements could be used for additional resources for enforcement and/or to improve public parking facilities. Real time parking information signs could also be provided at the car park entrances to advise drivers of the parking availability.

Stakeholder feedback also indicates that the MAC car park is often highly occupied and not accessible by members and visitors of MAC. This is mainly due to the car park being used by customers of Highpoint shopping centre and other users/visitors of the surrounding reserve at peak times.

The parking surveys of the MAC car park indicate that a peak occupancy of 87% occurred at 7pm on the surveyed Thursday and 92% at 3pm on the surveyed Saturday. These results indicate the car park is close to full at peak times, which may make it difficult to find a parking space within the car park at these times.

It is understood there is an agreement with the Highpoint shopping centre to lease a part of the MAC car park for use by customers. This effectively provides a shared parking arrangement in the MAC car park for MAC members and visitors, and shopping centre customers, as the areas available for each are not differentiated (which is unlikely to be easily achieved nor would it be practical). It is clear that Highpoint shopping centre customers use the MAC car park when visiting retailers that are easily accessible from the MAC car park.

Robbert Barrett Reserve can also generate high parking demands during various organised sporting events and activities. This can result in overspill of parking into the surrounding road network and higher parking occupancy within the MAC car park. \

To improve the parking availability of members of MAC there would need to be some sort of separation made between the MAC car park and the shopping centre. Consideration could be given to closing the access points of the MAC car park at Aquatic Drive and providing a new access point at Rosamond Road. This may give a sense of separation between the MAC car park and the Highpoint shopping centre, to improve parking opportunities for MAC users. The Rosamond Road access could be in the form of a fourth leg to the signalised access on Rosamond Road for the Bunnings (at No. 9-15 Williamson Road). While the new access would cross the tram reserve, a tram priority phase could be included to reduce any delays to trams. Removing the access points along Aquatic Drive will also eliminate the conflict with the existing shared path along the southern side of Aquatic Drive and the future separated

pedestrian and bicycle paths proposed along the southern side of the road (as indicated by the Draft Highpoint Infrastructure Master Plan).

It is also noted that people that want to cycle to MAC early in the morning and in the evening feel that the level of public lighting is poor along paths surrounding MAC. There is also concern about the theft of bicycle from the front of the centre. The lighting along the paths should be reviewed and consideration should be given to providing a secure bicycle parking facility for MAC visitors, members and staff.

Objective 2

2. Support fair and equitable parking for all visitors to the HMAc while also encouraging increased mode split to public and active transport.

Potential Strategies

- 2.1. Continue to enforce illegal parking within the HMAc. Consider providing additional resources/staff to increase/improve the frequency of enforcement.
- 2.2. Review the lighting along the paths around MAC to encourage active transport early in the morning and in the evening.
- 2.3. Consider providing a secure bicycle parking facility for staff and members of MAC.
- 2.4. Consider providing dynamic real time digital parking signs at the MAC car park access points to advise drivers of parking availability.
- 2.5. Investigate closing the access points of the MAC car park at Aquatic Drive and providing a new access point at Rosamond Road.

3.3 RESIDENTIAL PARKING

Existing Car Ownership

The latest Australian Bureau of Statistics (ABS) Census data for HMAc and nearby areas indicate that apartment occupants have the following average car ownership rates:

- 1-bedroom apartments – 1.03 car space
- 2-bedroom apartments – 1.27 car spaces
- 3-bedroom apartments – 1.50 car spaces

The above rates are considered to be relatively high for a major activity centre, but probably reflect the level of public and active transport facilities in the HMAc particularly that there is no train station. Car ownership rates would ideally be less than 1 car per apartment within the HMAc, particularly for the 1-bedroom and studio apartments. It is also clear that the car ownership for 3-bedroom apartments is lower than the Planning Scheme requirement of 2 spaces per 3-bedroom dwelling.

A recent review of car ownership data from the last 5 Censuses (2001 to 2021) by Ratio Consultants indicates the following average car ownership rates for apartment type dwellings:

- Greater Melbourne Area: 0.92 to 0.98 spaces per apartment; and
- Inner Melbourne: 0.84 to 0.90 spaces per apartment.

The Ratio study also found that apartments in the vast majority of suburbs in Greater Melbourne had a car ownership of less than 1.2 vehicles per apartment, and that apartments in suburbs with a train station typically had even lower car ownership rates.

The North Maribyrnong Integrated Transport Strategy recommends the preparation of a Parking Precinct Plan which includes maximum car parking requirements for the HMAC rather than minimum requirements. It is anticipated that this would drive lower parking provision, lower rates of car ownership, and less reliance on private motor vehicle trips with the aim of reducing road network congestion in the area, particularly having regard to the growth likely to be generated by proposed development within HMAC (and also by development of the former Defence Site immediately to the north).

The use of a maximum parking rate would reinforce the desire to increase the mode share of public and active transport within the HMAC.

Anticipated Future development

The parking demand assessment of the anticipated future development in the HMAC indicates the residential component would require the greatest provision of parking to meet current Planning Scheme requirements. Therefore, parking requirements for residential development have the greatest potential to influence the amount of parking in the precinct overall.

While reducing parking provision for residential development is expected to reduce car ownership and reliance on private motor vehicle trips, it is acknowledged that lower car ownership does not necessarily translate to less car usage or less congestion on the road during peak periods. The same objectives can be achieved by provision of good sustainable transport options. Nevertheless, reduced parking rates have a role in encouraging sustainable transport trips.

Maximum parking rates for new residential developments that are lower than the existing car ownership rates would be a move in a positive direction to encourage reduced car ownership, discourage private vehicle use, and encourage the use of active and public transport.

Any reduced parking rates should be supported by:

- improved public transport facilities, as discussed above (improved bus and tram frequencies and operating hours),
- Improved active transport facilities (e.g. new shared paths and bicycle paths),
- Improved accessibility within the activity centre for all abilities,
- Increased on-site bicycle parking provisions (above those specified in Clause 52.06-34 of the Planning Scheme),

- On-site car share facilities. GoGet (a car share provider who also provides vehicles within private car parks) indicates that one car share pod can service 23 members and suggests that car share vehicles in private developments be provided at the following rates:
 - 1 carshare vehicle for every 10 to 15 dwellings without parking; and
 - 1 carshare vehicle for every 100 two+ bedroom dwellings with one parking space.
- A review of the parking restrictions within the HMAc and surrounding areas.

The HMAc is located within the PPTN, therefore in accordance with Column B of Table 1 of Clause 52.06 of the Planning Scheme no specific requirement for residential visitor parking provision. This is an acknowledgement that peak visitor parking demand does not typically coincide with the peak overall time of activity centres, and that visitor parking can therefore be accommodated within the public parking areas. However, this would depend on the uses operating during the peak visitor periods and/or the supply of public parking. Within HMAc this will also depend on the public on-street parking provision post infrastructure renewal works based on the Draft Highpoint Infrastructure Masterplan which proposes local street cross-sections with parallel parking on one-side.

Therefore, consideration should also be given to the provision of parking for visitors, regular building services (e.g. cleaners, gardeners, etc.), and also moving trucks.

Based on empirical data collected at similar uses parking for residential visitors of apartment developments should be provided at a rate of 0.1 space per dwelling. These spaces could also be used by building service providers. However, the use of public car parking vacancies, where available within convenient walking distance, should be considered on a case-by-case basis as a means to satisfy some of the residential visitor parking demands.

As for moving trucks it is recommended that an on-site loading bay be provided. This could be shared with other large vehicles servicing a building (e.g., private waste collection vehicles). This would need to be appropriately managed so that moving trucks do not interfere with other services such as waste collection. A loading bay and parking management plan(s) could be required for each development in HMAc as part of the Parking Overlay to outline how the loading bay and/or car park is to be managed.

Objective 3

3. Reduce parking rates within HMAc to account for existing and future residential parking demands and to encourage reduced car ownership, and in turn reduce traffic congestion.

Potential Strategies

- 3.1. Investigate implementing maximum car parking rates for new residential developments in Precincts 1 - 5. This would have regard to ABS Census data for car ownership, additional bicycle parking provision, the location of the activity centre, and the available public transport services/facilities.

- 3.2. Any on-site residential visitor parking be provided at a rate of 0.1 spaces per dwelling (based on empirical data for similar uses) within the HMAC.
- 3.3. Provide sufficient on-site loading provisions for moving trucks (which could share an on-site loading bay for waste collection or a commercial component).
- 3.4. Residential developments provide on-site car share facilities (spaces and vehicles) (including provision for electric vehicle charging) to fill the gap for trips that cannot be serviced by active or public transport.

One on-site car share space/vehicle be provided for every 10 dwellings without an on-site car space, plus one on-site car share space/vehicle for every 100 dwellings with an on-site car space.

To entrench and encourage the use of car share services it is suggested that a free membership to a car share provider be provided per dwelling for at least one year. The car share spaces would ideally be provided in front of the security barrier of the main car park to make them readily accessible to car share members who do not reside within the subject building.

- 3.5. Undertake a review of the parking restrictions within HMAC and surrounding areas.

3.4 ANTICIPATED COMMERCIAL GROWTH

The economic assessment for the HMAC indicates that there is also likely to be a large growth in the retail and office floor area within the HMAC. It is anticipated that there would be an additional office floor area of 40,000 sq m and an additional retail floor area of 25,000 sq m.

It is important to recognise that the provision of car parking for various uses generates vehicle trips. Therefore, minimising parking provision where appropriate is likely to reduce vehicle trips. This could be achieved through reduced standard car parking rates for various uses. While external customers would ideally visit HMAC using active and public transport the largest benefits are likely to come from focusing on managing/reducing the long-term parking demands of employees. However, any reduced parking rates will need to ensure that developments are still commercially viable.

3.4.1 Office

As discussed in Section 2.7 existing applications for mixed use developments with offices propose to provide parking at a rate of 3 spaces per 100 sq m of net floor area in accordance with the Planning Scheme requirement for a site within the PPTN.

Unfortunately, at the time of the June parking occupancy surveys, there were no offices within the HMAC with publicly accessible parking areas that could be surveyed (while there are offices at 189 Rosamond Road these were vacant at the time of the surveys). Therefore, an existing office parking demand rate for office uses within HMAC could not be determined.

There are numerous case studies of reduced office car parking rates for sites located in activity centres in inner Melbourne. These typically indicate that offices with good access to public transport tend to generate lower parking demand rates.

The Parking Overlays for Footscray Inner and Outer require the following office parking rates:

- Footscray Inner – 1.5 (min) to 2.0 (max) car spaces per 100 sq m of gross floor area,
- Footscray Outer – 2.0 (min) car spaces per 100 sq m of gross floor area.

The Parking Overlays for the neighbouring Moonee Ponds and Sunshine activity centres require parking for an office to be provided at a rate of 2.0 (min) car spaces per 100 sq m of net floor area.

To encourage office staff commuting to/from the HMAC to use alternative sustainable transport modes, and having regard to the fact that residents within HMAC or surrounding areas could be employees, it is recommended that an office rate of 2.0 (min) spaces per 100 sq m of net office floor area be adopted, consistent with that of neighbouring activity centers. This should be supplemented by additional on-site bicycle spaces.

Where office developments are provided in combination with complementary uses such as entertainment and hospitality uses, the parking supply can be shared, subject to justification (e.g., the office parking provision is also sufficient for the parking demand of the complementary use).

3.4.2 Retail

As discussed in Section 2.7 existing applications for mixed use developments with retail (shop) uses typically propose supplying parking at a rate of 1 space, and in one instance 2 spaces, per 100 sq m of leasable floor area. This is lower than the Planning Scheme requirement of 3.5 spaces per 100 sq m of leasable floor area for a site within the PPTN.

The rates proposed by existing applications in Precincts 1 to 5 typically cover on-site parking for retail staff/employees however do not make any provision for customer parking. It could be argued that customers are anticipated to be occupants of the proposed apartments in the HMAC and could use active transport, or if customers are visiting the area by car, they could use public parking (on and off-street) in the vicinity of the site.

However, HMAC currently has limited on-street parking (e.g. on Sloane and White Streets) and with the exception of the off-street car parks at MAC and Robert Barrett Reserve the off-street car parks are typically on private property associated with existing uses, particularly in precincts 1 to 6.

The Draft Highpoint Infrastructure Master Plan proposes that local streets within HMAC, particularly within Precincts 1 to 5 have parking on one side to appropriately reallocate road space to new active transport facilities. At this stage it is unknown if the proposed on-street parking provision will be sufficient to cater for customer parking demands of mixed-use developments, or even if all or some of the on-street parking would be available for customers (as it is likely to include other restrictions such as loading bays, taxi bays, etc.).

The existing off-street car parks, especially those associated with large restricted retail sites often have surplus parking but these car parks are likely to be removed as part of anticipated future mixed use developments in Precincts 1 to 5.

There are also no proposals for a new Council managed public off-street car park(s), within the HMAc.

Given that existing public car parks in Precinct 7 such as the MAC car park are intended for the use of MAC members and visitors of the reserve, and the Highpoint shopping centre car park is typically fully occupied at peak times, any new developments, particularly in Precincts 1 to 5, would need to provide sufficient parking to accommodate the parking demand they would generate.

Other activity centres in the vicinity have adopted the following reduced parking rates for the use of retail premises / shop:

- Footscray Inner: 0.5 (min) and 1.5 (max) to each 100 sq m of gross floor area.
- Footscray Outer: 1.5 (min) to each 100 sq m of gross floor area.
- Sunshine: 2.5 (min) to each 100 sq m of leasable floor area.

While it is acknowledged that the above activity centres have on-street and off-street public parking areas (Council managed and/or private/commercial car parks open to the public), and are located adjacent to a train station similar rates within HMAc would support the strategic directions to reduce car dependency and encourage the use of active and public transport.

Having regard to the location of HMAc, the public transport facilities, and the future availability of public parking a parking rate of 2.0 (min) spaces per 100 sq m of leasable floor area is recommended for retail (shop) use within Precincts 1 to 5.

3.4.3 Restricted Retail Premises

With the exception of the Highpoint shopping centre most of the commercial uses with publicly accessible car parks (in Precincts 3 to 5 of the study area) are restricted retail/bulky goods type uses. Section 2.7 indicates that on average these developments currently have an oversupply of parking. The exception to this was 98-104 Hampstead Road which had a peak parking occupancy of 89% on the surveyed Saturday, however it is noted that this site includes a play centre which may have resulted in the higher demand.

Nonetheless, on average parking is provided for the restricted retail use sites at a rate of 2.3 spaces per 100 sq m but average peak parking demand is 1.4 spaces per 100 sq m of gross floor area. However, it is noted that some sites had a lower peak parking demand of 1.2 spaces per 100 sq m of gross floor area. The existing provision is similar to the Planning Scheme parking requirement of 2.5 spaces to each 100 sq m of leasable floor area (within the Public Transport Network (PPTN)).

It is clear that there is scope to reduce the parking requirement for restricted retail premises within the HMAc. A parking rate of 1.5 (min) spaces per 100 sq m of leasable floor area would be appropriate particularly in Precincts 1 to 5.

Objective 4

4. Reduce future parking rates for office, and retail uses within HMAc to facilitate appropriate parking provision while supporting mode shift to sustainable travel modes and to ease traffic congestion.

Potential Strategies

- 4.1. *Parking for office use in Precincts 1 to 5 be provided at a rate of 2.0 (min) spaces per 100 sq m of net floor area (consistent with neighbouring activity centres).*
- 4.2. *Encourage shared parking between complementary uses such as office (during business hours) and entertainment / hospitality (during evening and weekend).*
- 4.3. *Parking for retail/shop in Precincts 1 to 5 be provided at a rate of 2.5 (min) spaces per 100 sq m of leasable floor area. This rate is based on the future availability (or lack thereof) of on and off-street public parking in these precincts.*
- 4.4. *Consider a parking rate of 1.5 (min) spaces per 100 sq m of leasable floor area for restricted retail premises within Precincts 1 to 5.*
- 4.5. *The reduced on-site parking provisions should be supported by increased on-site bicycle parking provisions (above those specified Clause 52.06-34 of the Planning Scheme),*
- 4.6. *Investigate and implement parking restrictions at all public off-street car parks, and on-street parking areas within HMAc to discourage long-term (all day) off-site parking (i.e. to discourage staff/employees from seeking alternative long-term parking opportunities off-site).*

3.5 ROAD SAFETY

The crash data for the last five years indicates that there is a significant number of crashes within the HMAc, particularly along Rosamond Road, Williamson Road including the Hampstead Road intersection, and along Aquatic Drive including at the Rosamond Road intersection.

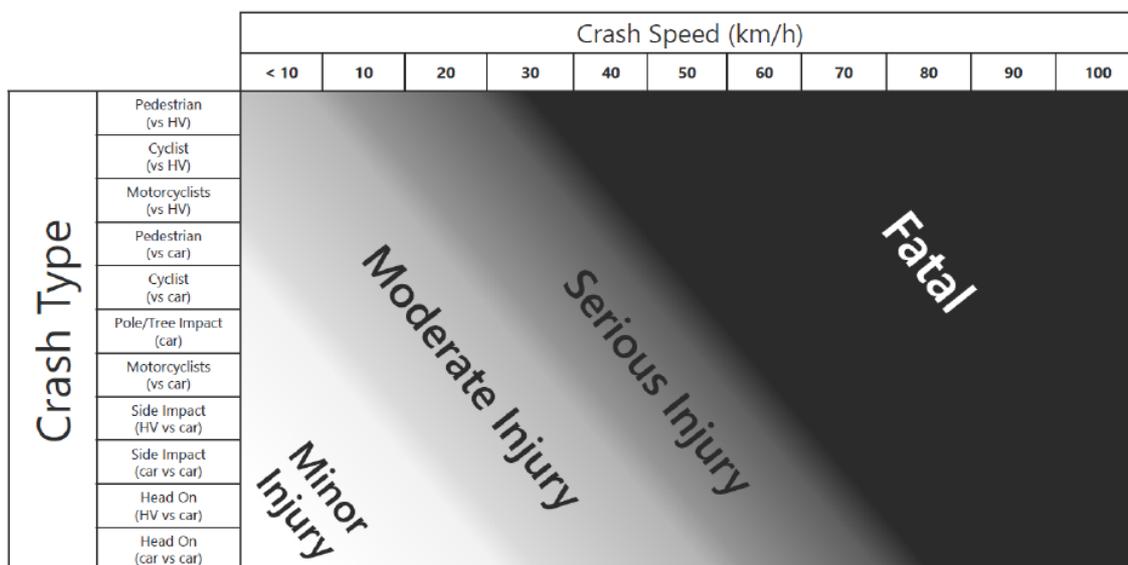
There is also a significant number of crashes involving pedestrians including along Williams Road and Aquatic Drive.

While the crashes are not related to any parking issue these have a direct impact on the amenity of pedestrians and cyclists and therefore influence the travel choices of individuals (i.e., if they feel that it is unsafe to walk or cycle in the area they may continue to drive). Therefore, it is important to address these safety issues through the proposed walking and cycling infrastructure and any other traffic management treatment upgrades.

Some of the crash problems at intersections may be able to be addressed through future intersection upgrade works. Locations may also be eligible for funding from the Federal Government Black Spot Program (via the Department of Planning and Transport).

The City of Maribyrnong has rolled out 40km/h speed limits on most Council controlled roads in Maribyrnong and Maidstone (as well as within other suburbs) which may assist in reducing the severity of some crashes. However, the risk of fatal or

serious injury for vulnerable road users increases significantly when involved in a collision with a vehicle travelling over 30km/h as indicated by the severity guidance sheet provided in Austroads Guide to Road Safety Part 6: Road Safety Audits, see **Figure 22**. The severity guidance sheet shows the severity outcomes associated with different crash types and speeds.



SOURCE: AUSTRROADS GUIDE TO ROAD SAFETY PART 6: ROAD SAFETY AUDIT – FIGURE 10.3

FIGURE 22: CRASH SEVERITY GUIDANCE

A 30km/h speed limit is also recommended by the Maribyrnong Bicycle Strategy 2020 - 2030.

Therefore, it is recommended that a 30km/h speed limit be considered for the HMAc, including Williamson Road, Rosamond Road and Aquatic Drive, to support a safer road environment for all users and promote the use of active transport.

Objective 5

- Understand safety concerns for pedestrians, cyclists and drivers particularly at key intersections, and along major roads and streets.

Potential Strategies

- It is recommended the crash history in the study area be analysed in more detail, and where possible, traffic management treatments/works be considered/undertaken to address any crash trends. Black Spot Program funding applications should be prepared for eligible locations.
- Investigate lowering the speed limit to 30km/h in all of the activity centre as recommended in the Bicycle Strategy. This will assist in reducing the number and severity of crashes as well as improving the amenity of the area for walking and cycling.
- Undertake road safety behaviour change programs.

4 SUMMARY OF OBJECTIVES AND STRATEGIES

The objectives and strategies are summarised in **Table 6**.

SUSTAINABLE TRANSPORT	
Objective 1	<p>1.1. Encourage the use of sustainable, public and active transport by residents, visitors, customers and employees of the HMAc; and</p> <p>1.2. Encourage future residents to reduce private car ownership, reduce travel by private vehicle, and increase travel by public and active transport modes.</p>
Potential Strategies	<p>1.1. Advocate to the State Government to improve the frequency of existing public transport services operating within the HMAc; minimum 10 minutes during the peak times and 20 minutes at off peak times. This should include the busy weekend peaks.</p> <p>1.2. Advocate to the State Government to increase the operating hours of bus and tram services operating within the HMAc. This should include weekdays between 6am and midnight, and the weekend between 12am and 6am (i.e., Night Network services).</p> <p>1.3. Advocate to the State Government to provide tramways and/or tram lanes along Tram Route 82 to improve tram priority between the HMAc and Footscray station (where possible/practical).</p> <p>1.4. Consider introducing public and active transport priority at intersections. This could include bus lanes with head starts. Pedestrian head start phases and/or exclusive pedestrian scramble phase could also be considered to allow all pedestrians to cross in all directions at the same time.</p> <p>1.5. Planned bicycle and pedestrian paths, and other infrastructure should be implemented prior to new developments being occupied. This would support and facilitate travel mode shift within the HMAc from day one of occupation.</p> <p>1.6. Require additional on-site bicycle parking provisions in excess of Planning Scheme requirements to support reduced car ownership.</p> <p>1.7. On-site car share spaces/vehicles to provide alternative occasional car use for residents and employees (e.g., for site visits or meetings by office staff).</p> <p>1.8. No unrestricted (long term) parking within HMAc to discourage residents and employees from seeking on-street parking. This may also need to apply to all streets within 400m of HMAc.</p> <p>1.9. Infrastructure should be provided within new developments to support zero greenhouse gas emission transport. This should include the provision of charging points for electric vehicles to all parking spaces (including motorcycles).</p> <p>1.10. Motorcycle parking spaces should be provided within new developments at a rate of 1 motorcycle parking spaces for every 15 car spaces provided on the site. This rate is commensurate to the number of passenger vehicles registered to every motorcycle registered in Australia.</p>

ILLEGAL PARKING, MARIBYRNONG AQUATIC CENTRE AND ROBERT BARRETT RESERVE	
Objective 2	2. Support fair and equitable parking for all visitors to the HMAC while also encouraging increased mode split to public and active transport.
Potential Strategies	<p>2.1. Continue to enforce illegal parking within the HMAC. Consider providing additional resources/staff to increase/improve the frequency of enforcement.</p> <p>2.2. Review the lighting along the paths around MAC to encourage active transport early in the morning and in the evening.</p> <p>2.3. Consider providing a secure bicycle parking facility for staff and members of MAC.</p> <p>2.4. Consider providing dynamic real time digital parking signs at the MAC car park access points to advise drivers of parking availability.</p> <p>2.5. Investigate closing the access points of the MAC car park at Aquatic Drive and providing a new access point at Rosamond Road.</p>
RESIDENTIAL PARKING	
Objective 3	3. Reduce future parking rates within HMAC to account for anticipated future residential parking demands and to encourage reduced car ownership, and in turn reduce traffic congestion.
Potential Strategies	<p>3.1. Investigate implementing maximum car parking rates for new residential developments in Precincts 1 - 5. This would have regard to ABS Censuses data for car ownership, additional bicycle parking provision, the location of the activity centre, and the available public transport services/facilities.</p> <p>3.2. Any on-site residential visitor parking be provided at a rate of 0.1 spaces per dwelling (based on empirical data for similar uses) within the HMAC.</p> <p>3.3. Provide sufficient on-site loading provisions for moving trucks (which could share an on-site loading bay for waste collection or a commercial component).</p> <p>3.4. Residential developments provide on-site car share facilities (spaces and vehicles) (including provision for electric vehicle charging) to fill the gap for trips that cannot be serviced by active or public transport.</p> <p>One on-site car share space/vehicle be provided for every 10 dwellings without an on-site car space, plus one on-site car share space/vehicle for every 100 dwellings with an on-site car space.</p> <p>To entrench and encourage the use of car share services it is suggested that a free membership to a car share provider be provided per dwelling for at least one year. The car share spaces would ideally be provided in front of the security barrier of the main car park to make them readily accessible to car share members who do not reside within the subject building.</p> <p>3.5. Undertake a review of the parking restrictions within HMAC and surrounding areas.</p>

ANTICIPATED COMMERCIAL GROWTH	
Objective 4	4. Reduce future parking rates for office and retail uses within HMAc to facilitate appropriate parking provision while supporting mode shift to sustainable travel modes and to ease traffic congestion.
Potential Strategies	<p>4.1. Parking for office use in Precincts 1 to 5 be provided at a rate of 2.0 (min) spaces per 100 sq m of net floor area (consistent with neighbouring activity centres).</p> <p>4.2. Encourage shared parking between complementary uses such as office (during business hours) and entertainment / hospitality (during evening and weekend).</p> <p>4.3. Parking for retail/shop in Precincts 1 to 5 be provided at a rate of 2.5 (min) spaces per 100 sq m of leasable floor area. This rate is based on the future availability (or lack thereof) of on and off-street public parking in these precincts.</p> <p>4.4. Consider a parking rate of 1.5 (min) spaces per 100 sq m of leasable floor area for restricted retail premises within Precincts 1 to 5.</p> <p>4.5. The reduced on-site parking provisions should be supported by increased on-site bicycle parking provisions (above those specified Clause 52.06-34 of the Planning Scheme),</p> <p>4.6. Investigate and implement parking restrictions at all public off-street car parks, and on-street parking areas within HMAc to discourage long-term (all day) off-site parking (i.e. to discourage staff/employees from seeking alternative long-term parking opportunities off-site).</p>
ROAD SAFETY	
Objective 5	5. Understand safety concerns for pedestrians, cyclists and drivers particularly at key intersections, and along major roads and streets.
Potential Strategies	<p>5.1. It is recommended the crash history in the study area be analysed in more detail, and where possible, traffic management treatments/works be considered/undertaken to address any crash trends. Black Spot Program funding applications should be prepared for eligible locations.</p> <p>5.2. Investigate lowering the speed limit to 30km/h in all of the activity centre as recommended in the Bicycle Strategy. This will assist in reducing the number and severity of crashes as well as improving the amenity of the area for walking and cycling.</p> <p>5.3. Undertake road safety behaviour change programs.</p>

TABLE 6: SUMMARY OF OBJECTIVES AND STRATEGIES