Traffix Group

Traffic Engineering Assessment

Proposed Residential Development 77 Park Street, South Melbourne

Prepared for Gurner[™]

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1. Introduction

Traffix Group has been engaged by Gurner[™] to undertake a Traffic Engineering Assessment for the Proposed Residential Development at 77 Park Street, South Melbourne.

A permit (P2605/2017) was issued in April 2018, at the direction of VCAT following mediation, for the redevelopment of the site to allow a residential development, incorporating 50 dwellings, subject to conditions.

An application to amend the plans and permit is proposed, with amended plans prepared by Fender Katsalidis.

This report provides a detailed traffic engineering assessment of the parking and traffic issues associated with the amended proposal.

In the course of undertaking this assessment, we relied on a historical site inspection, reviewed development plans and background material and the permit, and assessed the car parking and traffic impacts of the proposal.

Our assessment, based on Fender Katsalidis Architects' March 2022 plans and the 2018 Permit, is as follows.

2. Existing Permit

Planning Permit (1029/2016), issued by City of Port Phillip at the direction of VCAT in April 2018, allows for the redevelopment of the site for the purposes of a multi-storey residential building with a reduction in the car parking requirements.

Vehicle site access is approved via a double width crossover to Park Street located near the western corner of the site. A car lift provides access to basement parking.

Table 1 provides a summary of the development schedule from the permitted plans (prepared by JCBA dated April 2018).

Land Use		Endorsement Scheme
Residential	1 bed dwelling	4 dwellings
	2 bed dwelling	35 dwellings
	3+ bed dwelling	5 dwellings
	Townhouse	6 dwellings
	Total	50 dwellings
Parking	Cars	63 spaces
	Bikes	45 spaces

Table 1: Approved Development Scheme

3. Existing Conditions

3.1. Subject Site

The subject land, addressed as 77 Park Street, South Melbourne, is located at the southwestern corner of the intersection of Kings Way and Park Street in South Melbourne.

A locality plan of the site frontage is provided at Figure 1.



Figure 1: Locality Map

3.2. Subject Site and Use

The development site is irregular in shape and consists two (2) land parcels (being No. 77 Park Street and No. 286 Kings Way) with a total area of approximately 1,550 square metres.

The site has frontages of approximately 30 metres and 55 metres to Kings Way and Park Street, respectively.

77 Park Street is currently vacant but was previously occupied by a church which operated as a childcare centre. An on-site car parking area providing for five (5) spaces is accessed via a double width crossover to Park Street.

The land parcel addressed at 286 Kings Way was historically occupied with a double storey commercial building and it provides six (6) under croft on-site parking spaces accessed via a crossover to Park Street.

An aerial image of the subject site is provided at Figure 2.



Figure 2: Aerial Image - Nearmap

3.3. Planning Scheme Zones & Surrounding Uses

The subject site is zoned as General Residential Zone – Schedule 1 under the Port Phillip Planning Scheme. A planning zone map is provided at Figure 3.

Land uses in the immediate vicinity of the subject is generally residential in nature with commercial uses further East. Notable nearby uses include:

- Domain Tram Interchange / Anzac Train Station located approximately 400 metres east of the site,
- Clarendon Street Core Shopping Precinct located approximately 500 metres west of the site,
- The Mac Robertson Girls High School located approximately 550 metres south-east of the site,
- Shrine of Remembrance located approximately 750 metres north-east of the site, and
- South Melbourne Market located 1.2km north-west of the site.

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Figure 3: Planning Zone Map – Port Phillip



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3.4. Road Network

Kings Way is a primary state arterial road running between St Kilda Road in the south-east and Flinders Street in the north-west, where it continues as King Street.

In the vicinity of the subject site, Kings Way has a divided carriageway width of approximately 36 metres which provides for four lanes of traffic and a central tram corridor. No parking is provided along Kings Way in the vicinity of the subject site.

Park Street is a major local road running between St Kilda Road in the north-east and Nelson Road in the south-west, where it continues further west as Mountain Street.

In the vicinity of the subject site, Park Street has a carriageway width of approximately 17.5 metres which provides for two lanes of traffic and kerbside parking in the eastbound direction and a single lane of traffic and kerbside parking in the westbound direction.

On-street parking in the vicinity of the subject site is generally short term restricted (1P). A posted speed limit of 60 km/h applies along Parking Street in the vicinity of the site.

Figure 4 to Figure 7 provide views of the surrounding road network.



Figure 4: Kings Way - View North-West



Figure 6: Park Street - View East



Figure 5: Kings Way - View South-East



Figure 7: Park Street - View West



4. Proposal

4.1. The Development

Amended Plans have been prepared by Fender Katsalidis, dated March 2022.

The amended plans propose a minor increase in the number of dwellings (by 4 units) through a change in the types of apartment mix.

Table 2 provides a summary of the current proposal, in relation to the scheme previously permitted on the site.

Table 2: Approved & Proposed Development Schedules

	Use	Approved Scheme	Proposed Scheme	Change
Residential	Studio	-	1 dwelling	+1 dwelling
	1-bedroom	4 dwellings	12 dwellings	+8 dwellings
	2-bedroom 35 dwelli		27 dwellings	-8 dwellings
	3-bedroom	5 dwellings	8 dwellings	+3 dwelling
	Town Houses (3-Bedroom)	louses (3-Bedroom) 6 dwellings 6 dwellings		no change
	Total	50 dwellings	54 dwellings	+4 dwellings

4.2. Vehicular Access

Consistent with the permit plans, the proposal continues to provide access to the site via a double width crossover to Park Street near the western corner of the site.

Internally, access to the car parking levels will be provided via a full serviced car lift.

4.3. Car Parking Provisions

The amended plans contemplate a total of 62 car spaces on-site across three basement levels.

Car parking will be allocated for residents only, generally as follows:

- 0.54 spaces to the 13 one-bedroom dwellings (including studio) (7 spaces),
- 1 space to each of the 27 two-bedroom dwellings (27 spaces), and
- 2 spaces to each of the 14 three-bedroom dwellings (28 spaces).

We note that this is a reduction of 1 car space from the current permit and all parking will be provided for residents.

It is important to note that these provisions are a variation from that approved by the Permit, and accordingly an amended is sought to the Permit particularly in relation to the parking provisions.

4.4. Bicycle Parking Provisions

A total of 48 bicycle parking spaces are proposed, including 42 spaces within secure areas in the basement levels and 6 publicly accessible spaces at ground level.

4.5. Loading & Waste Collection

Loading and waste collection will be undertaken on-street, consistent with the approved arrangements.



5. Car Parking Considerations

5.1. Permit 239/2017 - Condition 15

Condition 15 of the Planning Permit (239/2017) sets out the car parking requirements of the approved development. The condition, which was based on the original development schedule, states:

Without the further written consent of the Responsible Authority car parking for the approved development must be allocated on any Plan of Subdivision as follows:

- a) A minimum of one (1) car space for each two bedroom and three bedroom dwelling; and
- b) Three car spaces with 2 hour parking restrictions during 8am to 11pm including one that can be used as a multi-purpose loading bay with increased width clearance.

All to the Satisfaction of the Responsible Authority.

The permit condition does not set out a required allocation for the one-bedroom dwellings included within the application.

Condition 1 (b) of the Permit also includes reference for the requirement of 3 visitor parking spaces.

The proposal seeks to remove the requirement for the proposal to provide 3 visitor spaces by modifying Conditions 1b) and 15.

It also seeks to provide parking at the rates as follows:

- 0.54 spaces to the 13 one-bedroom dwellings (including studio) (7 spaces),
- 1 space to each of the 27 two-bedroom dwellings (27 spaces), and
- 2 spaces to each of the 14 three-bedroom dwellings (28 spaces).

An assessment of the above is provided as follows having regard to Clause 52.06 of the Planning Scheme, and in particular makes reference to changes to the Planning Scheme made in 2018 (after the permit issue) through Amendment VC148.

5.2. Residential Visitor Parking - Amendment VC148

The original permit was issued in the early half of 2018 and at the time the default requirements within Clause 52.06 required visitor parking for residential development, regardless of location.

In August 2018, Clause 52.06 was amended as part of Amendment VC148 and it changed the way the parking rates at Clause 52.06 are applied.

Table 1 of Clause 52.06 now sets out the car parking requirement that applies to a land use listed in the table and includes car parking rates under Column A and Column B.

Clause 52.06-5 states that:

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"Column B rates apply to a site if any part of the land is identified as being within the Principal Public Transport Network Area as shown on the Principal Public Transport Network Area Maps."

An excerpt of the Principal Public Transport Network (PPTN) Area Map is provided at Figure 8.



Figure 8: Port Phillip - PPTN Area Map

In this case, the subject site is included within the PPTN area map and therefore Column B rates apply to the proposal.

The Column B rates do not require the provision of residential visitor parking.

As there is no statutory requirement to provide visitor parking, the application seeks to remove the 3 visitor car spaces that are required under the current permit.

This is considered appropriate and consistent with the requirements of the Planning Scheme.

It is also relevant that the on-site parking is proposed to be accessed via a car lift. Clause 52.06 specifically states that visitor parking is not appropriate to be accessed via a car lift or located within mechanical parking.

Accordingly, Condition 15 (and Condition 1(b) which also refers to visitor parking) should be amended to remove reference to the visitor parking requirements.

5.3. Statutory Requirements – Clause 52.06

A statutory assessment of the proposal under the rates at Clause 52.06 is provided at Table 3. *Table 3: Statutory Car Parking Requirements (Clause 52.06)*

Use		No. / Size	Statutory Requirement	No Required
Residential	1 & 2-bedroom	40 dwellings	1 car space to each dwelling	40 spaces
	>3-bedroom	14 dwellings	2 car spaces to each dwelling	28 spaces
Total				68 spaces



Based on the table above, the development is statutorily required to provide 68 car spaces for residents.

The application proposes 62 car spaces, and intends to satisfy the parking requirements for the two-bedroom and three-bedroom apartments, and is therefore seeking a waiver of 6 residential spaces associated with one-bedroom apartments.

Clause 52.06-7 of the Planning Scheme allows a permit to be granted to vary the statutory car parking.

Planning Practice Note (June, 2015) specifies that the provisions draw a distinction between the assessment of likely demand for parking spaces, and whether it is appropriate to allow the supply of fewer spaces. These are two separate considerations, one technical while the other is more strategic. Different factors are taken into account in each consideration.

An assessment of the appropriateness of reducing the car parking provision below the statutory requirement is set out as follows.

5.4. Car Parking Demand Assessment

The Scheme requires the assessment of car parking demand likely to be generated by the proposed use to have regard for listed factors, as appropriate, including:

- The likelihood of multi-purpose trips within the locality which are likely to be combined with a trip to the land in connection with the proposed use
- The variation of car parking demand likely to be generated by the proposed use over time
- The short-stay and long-stay car parking demand likely to be generated by the proposed use.
- The availability of public transport in the locality of the land.
- The convenience of pedestrian and cyclist access to the land.
- The provision of bicycle parking and end of trip facilities for cyclists in the locality of the land.
- The anticipated car ownership rates of likely or proposed visitors or occupants (residents or employees) of the land.
- Any empirical assessment or case study.

An assessment of the projected car parking demand for the proposed development, accounting for these factors follows.

5.4.1. Sustainable Modes of Transport

The site has excellent access to sustainable transport modes and is well located with regard to retail and essential services as detailed below.

Pedestrian Accessibility

The site is extremely well located to promote walking to everyday services. It is located proximate to the Clarendon Street Core Shopping Precinct, which is approximately 500 metres to the west.

This precinct provides access to a wide range of everyday services such as supermarkets, banks, restaurants, specialty shops, entertainment and medical uses that can be easily accessed on foot.

Bicycle Accessibility

The City of Port Phillip is well serviced by the Principal Bicycle Network (PBN), with on-road and off-road bicycle paths directly linking to the City and surrounding municipalities.

The Principal Bicycle Network (PBN) is a network of proposed and existing bicycle routes that provide access to major destinations in the Melbourne Metropolitan area.

The subject site has excellent access to bicycle infrastructure with on-road and informal bicycle routes on the road network in the vicinity of the subject site, including Cecil Street and Dorcas Street.

A copy of the City of Melbourne TravelSmart map is provided at Figure 9 illustrating the surrounding bicycle network and sustainable transport modes.



Figure 9: City of Port Phillip - TravelSmart Map

Public Transport

The site has excellent public transport access with multiple tram and bus services within walking distance.

A tram stop is available at the intersection of Kings Way and Park Street and approximately 300 metres west of the site on Moray Street.

The site is located approximately 400 metres west of the proposed Anzac station which is currently under construction as part of the Metro Rail Tunnel project.

Table 3 summarises the available services, whilst Figure 7 illustrates the nearby routes.

Service	Route		Location/ Walking Distance to Site
Bus	Route 216	Sunshine Station- Brighton Beach	~400m on St Kilda Rd
	Route 219	Sunshine South- Gardenvale	~400m on St Kilda Rd
	Route 216	Sunshine Station- Brighton Beach	~400m on St Kilda Rd
Tram	Route 1	East Coburg – South Melbourne Beach	~300m on Moray St
	Route 3 & 3a	Melbourne University- East Malvern	~400m on St Kilda Rd
	Route 5	Melbourne University- Malvern	~400m on St Kilda Rd
	Route 6	Moreland- Glen Iris	~400m on St Kilda Rd
	Route 16	Melbourne University- Kew	~400m on St Kilda Rd
	Route 58	West Coburg – Toorak	Site's Frontage
	Route 64	Melbourne University- East Brighton	~400m on St Kilda Rd
	Route 67	Melbourne University- Carnegie	~400m on St Kilda Rd
	Route 72	Melbourne University- Camberwell	~400m on St Kilda Rd
Train	Flinders Street Station	All Metropolitan Lines	~1.8km north
	Anzac Station (under construction)	City to Cranbourne/Pakenham	~400m east

Table 4: Public Transport Services in the Vicinity of the Subject Site



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Figure 10: PTV Public Transport Map - Port Phillip

Source: Public Transport Victoria

Car Share

Car share schemes have been operating within the City of Port Phillip since 2005, with a number of inner metropolitan Councils actively supporting their use by allocating on-street spaces throughout their municipalities for the purpose of accommodating 'car share' pods.

Car sharing schemes provide an alternative to owning a car and encourages the use of sustainable modes of transport for the majority of trips. Car share schemes offer personal and commercial/business memberships and can be more convenient for short trips as payment is generally on a per hour basis.

Residents can utilise car share vehicles for trips which may require a personal vehicle such as larger shopping trips or for the transport of bulky items or for day trips where public transport or bicycle access is difficult. They offer opportunities to reduce the need for residents to own a vehicle.

Port Phillip Council has an adopted car share policy (Car Share Policy 2016 to 2021). The policy actively encourages the Council's Sustainable Transport Strategy, which sets Council's broader vision for a connected and liveable city where residents, visitors and workers can live and travel car free by improving the convenience, safety, accessibility and range of sustainable travel choices across the municipality.

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A number of commercially operated car share cars currently available proximate to the subject site are shown in Figure 11.

Figure 11: Proximate Car Share Pods

The nearest existing 3 car share pods (spaces) in the vicinity of the site, include:

- Bank Street near Kings Way (GoGet) (1 car), approximately 150 metres walking distance north,
- Park Street near Eastern Road (Popcar) (1 car), approximately 170 metres walking distance west,
- Park Street near Wells Road (GoGet) (1 car), approximately 250 metres walking distance west, and

5.4.2. Anticipated Parking Demand

Resident Parking

In essence, the application proposes to provide car parking for the two and three-bedroom dwellings in accordance with the requirements of Condition 15 of the Planning Permit and the statutory rates, therefore no dispensation is sought.

The development seeks a reduction in the car parking requirements for the one-bedroom apartments as it is proposed to provide 7 spaces for the one-bedroom apartments, resulting in 6 apartments without an allocated car space. This is equivalent to an average rate of 0.54 spaces per one-bedroom apartment.

To understand parking ownership proximate to the site, the 2016 Australian Bureau of Statistics (ABS) Census data for all 'flats, units or apartments' within the suburb of South Melbourne and the Port Phillip LGA has been sourced.

The data highlights the average car ownership statistics shown in Table 5 and indicates that there is a considerable demand for one-bedroom dwellings where limited or no parking is required.

Table 5: ABS car ownership statistics (2016)

Type of Dwelling Number of Cars		South Melbourne	Port Phillip LGA
One-Bedroom	ne-Bedroom Average no. of cars per dwelling		0.8
	0 cars	39%	31%

Importantly, the data shows a significant portion of (39%) of one-bedroom dwellings in South Melbourne do not require car parking. A similar trend is also shown within the wider Port Phillip Municipality.

A comparison to 2011 ABS Census Data shows a marginal increase in the apartments without car parking in the suburb, likely to be reflective of additional choice of apartment product and improvements in amenity occurring through increased development in the area. This trend is likely to continue.

The subject site has excellent accessibility to public transport and is highly walkable and will have significantly higher public transport accessibility on the opening of Anzac Station.

The site is located proximate to the Clarendon Street Core Shopping Precinct, which provides access to a wide range of everyday and essential services such as supermarkets, banks, restaurants, specialty shops and essential services.

Accordingly, the development is well positioned to attract residents who wish to enjoy the benefits of inner city living and have little or no need for a private car. The reduced provision is likely to encourage those residents not provided with an on-site car space to seek alternate modes of transport.

Furthermore, future residents will not have access to residential parking permits. In consideration of the largely short-term parking restrictions which apply to parking within the surrounding area, there will be limited opportunity for future residents without an on-site car space to park on street.

To this end, we are of the view that the parking supply will dictate the demand and the provision of 0.54 spaces per one-bedroom apartment will satisfy the projected residential parking demands.

5.4.3. Relevant Policy

A key objective of Plan Melbourne is to encourage the use of more active modes of transport and reduce car dependency in areas where public transport and active transport is readily available.

A number of municipalities, including City of Port Phillip, are implementing strategic policies that encourage active transport modes by reducing parking requirements for new developments in areas close to public transport and in and around activity centres.

In areas such as the Central City and Fishermans Bend, City of Port Phillip and City of Melbourne have introduced maximum parking rates to actively suppress parking demands by limiting the supply.

This approach acknowledges that simply adopting existing trends and rates for parking demands as the benchmark will not contribute to a significant shift in travel demands and the reliance on cars. Rather, setting strategically low rates will force a shift in travel behaviours and trends.

Clause 21.01-2 of the Planning Scheme identifies that City of Port Phillip:

"aims to make ecologically sustainable decisions which:

- Respond to the issue of climate change by working towards achieving a 50% reduction in per capita greenhouse gas emissions.
- Create an integrated and sustainable transport network which supports the use of public transport cycling and walking over private car travel."

Clause 21.03-02 also identifies that "Port Phillip has a high rate of private vehicle ownership, which places pressure on the road infrastructure and creates high parking demand. Council is committed to sustainable transport initiatives that encourage alternative modes of transport and reduces the dependence on cars".

The City of Port Phillip has adopted a sustainable parking policy for new developments. This policy specifies reduced parking rates for a number of uses, including a sustainable rate of 0 - 0.8 car parking spaces per one-bedroom dwelling.

The table within the Policy outlines a number of conditions which should be satisfied in order to apply the sustainable rate.

With regard to the appropriateness to reduce the residential parking provisions, it is noted that:

- The site has access to fixed rail transport (trams) on Clarendon Street (350 metres) and Kings Way/Park Street (200 metres), and will shortly have access to a new train station at Anzac Station, approximately 400 metres away.
- There is strict control of on-street parking in the surrounding streets.
- The proposal is not eligible to participate in Council's parking permit scheme.
- Full line supermarkets are accessible on Clarendon Street, within 800 metres and convenience supermarkets are located within 400 metres of the site.
- There is a generous supply of bicycle parking for residents.

Based on the preceding, we are of the view that this site generally satisfies the criteria of Council's policy for sustainable residential rates, and the site has appropriate accessibility to essential services to support the sustainable rate for the residential apartments.

5.4.4. Appropriateness of Parking Provisions

Based on the preceding assessment, having regard to the ABS data, the location of the site, the access to public and sustainable transport modes, and the proximity to essential and day to day services, we are comfortable that the sought reduction is acceptable.

5.5. Car Parking Layout & Access Arrangements

The car park layout and access arrangements have been developed with design advice provided to the project architect (Fender Katsalidis) and is considered to principally meet the relevant requirements of the Whitehorse Planning Scheme and where applicable, the Australian Standard for Off-Street Parking (AS2890.1:2004).

A review of the car park layout reveals:

General Car Parking Layout

- Typical car spaces have generally been designated with minimum dimensions of 2.6 metres width and 4.9 metres length, accessible from 6.4 metre wide aisles, meeting the Planning Scheme requirements.
- A small number of typical spaces have a reduced aisle at 6.1 metres, and have been widened to 2.7 metres to comply with the table at Clause 52.06.
- A number of parking spaces are provided in a tandem arrangement, however the use of a platform sliding mechanical parking system (eg Klaus Parkboard or similar) will permit independent access to all parking spaces. This arrangement is considered appropriate.
- Spaces within the sliding platform arrangements have a minimum length of 5.4 metres to allow for a full length vehicle and independent accessibility and minimum widths of 2.6 metres with aisles that exceed the minimum dimensions under AS2890.1:2004.
- Columns are appropriately sited, generally in accordance with the Planning Scheme car parking envelope to allow for access into and out of spaces. Columns are marginally longer than permitted by the envelope at Clause 52.06 (at 1.2 metres length), however they will not unduly impact on door opening given that all spaces will be allocated for residents.
- Parallel bays have been provided with minimum dimensions of 2.3 metres width and 6.7 metres length accessible from a 5.2 metre wide aisle, exceeding the Planning Scheme requirements.
- Car spaces adjacent to walls have been provided with appropriate clearances to allow for satisfactory car door opening.
- Appropriate blind aisle extensions are provided and swept paths have been prepared and provided at Appendix A demonstrating access.
- A minimum head clearance of 2.2 metres is provided within all trafficable areas of the car parking area.

Access & Ramps

• The proposal intends to take access via a double width access to Park Street located at the north-west corner of the site, which provides access to the car lifts. Existing

crossovers will be removed and reinstated as kerb to the satisfaction of the responsible authority.

- The double width access ramp has been designed with a minimum width of 6.1 metres between walls for two-way ramp in accordance with AS2890.1:2004. Appropriate passing is provided adjacent to the car lifts entry. Access has been checked for the B99 design vehicle and found to be satisfactory shown in Appendix A.
- The first 5 metres of ramp is provided with the grade softer than 1:10 satisfying the requirements of the Planning Scheme.
- The plans illustrate a maximum grade of 1 in 16 on the ramp, satisfying the requirements of the Planning Scheme. Based on the expected queue lengths, appropriate space is provided for a vehicle to be propped prior to the car lift if required.
- A sight triangle has been provided on the egress side of the site access in accordance with Clause 52.06 Design Standard 1, being 2.0 metres across the site's frontage and extending 2.5 metres into the site. Any obstructions within the sight triangle are to be provided with a height less than 900mm.

Car Lift

- Car lift dimensions have been provided in accordance with information provided by the supplier. The car lift design will allow for internal cabin dimensions of 3.0 metres width and 5.8 metres length which will accommodate the B99 vehicle and is considered acceptable.
- The car lift is based on a Nordic Elevators hydraulic car lift product, with an operating speed of 0.5 metres per second.

Swept paths demonstrating access to critical parking spaces have also been prepared and attached at Appendix A

Based on the foregoing, the car park layout and access are considered satisfactory.



6. Traffic Considerations

6.1. Traffic Generation & Impact

The proposed plans show a provision 62 car spaces, allocated to 48 apartments.

The approval included 63 car spaces allocated to 50 apartments.

Whilst dwelling numbers are often a factor in traffic generation, in this case, we expect traffic generation will be more influenced by the number of parking spaces on-site.

On this basis that the application provides 4 additional apartments, but no additional car parking, there will be no material impact on the operation of the site or surrounds.

6.2. Car Lift Analysis

We note that the permit plans included a rotating car lift that serviced a single basement level.

Through modifying the basement parking arrangements, the proposal now includes a drivethrough full service hydraulic car lift. This lift will have a higher lifting speed and capacity than the previously proposed by the turntable lift. It will still allow for vehicles to enter and exit the site in a forward direction.

The proposed lifts are expected to have a travel speed of 0.5 metres per second, and, based on the location of parking, will have an average service time of around 65 seconds. This is equivalent to a capacity of approximately 55 vehicle movements per hour, per lift.

For the purposes of a conservatively analysis, we will adopt an average traffic generation rate of 0.2 vehicle movements per space (allowing for some second cars to generate traffic) for the car lift analysis.

The peak traffic generation (12 vehicle movements) relates to a utilisation of 0.22, or 22% of the overall capacity.

Based on standard queuing theory, a 98th percentile queue of 2 vehicles is expected, this is inclusive of the vehicles within the car lifts.

The site allows for passing and a single inbound vehicle queue to be stored on-sit, therefore satisfying the queuing requirements under AS2890.1:2004.

Accordingly, we are of view that the proposed car lift is satisfactory to service access to the basement car park.



7. Bicycle Considerations

Clause 52.34 of the Planning Scheme specifies the bicycle parking requirement for new developments.

The relevant requirements are summarised in Table 6.

Table 6: Statutory Bicycle Parking Requirements

Use	Units	Statutory Requirement	No. Of Spaces Required
Dwellings	54 dwellings	1 space per 5 dwellings for residents 1 space per 10 dwellings for visitors	11 resident spaces 5 visitor spaces

Based on the above assessment, the development is required to provide a total of 16 bicycle spaces, comprising 11 resident spaces and 5 visitor spaces.

It is noted that condition 1 (c) requires the provision of a minimum 5 bicycle spaces nominated as visitor spaces.

The application plans illustrate the provision of 42 secure resident bicycle spaces with a further 6 visitor spaces along the site frontages to Park Street (2 spaces) and Kings Ways service road (4 spaces).

These provisions exceed the approved development and the minimum requirements under Clause 52.34 of the scheme.

Bicycle parking has been provided in accordance with AS2890.3-2015 with a mix of vertical and horizontal rails as follows:

- Wall mounted vertical rails are dimensioned at 1.2 metres deep spaces, 0.5 metres spacings, and are accessible from an aisle 1.5 metres wide; and
- Horizontal rails are provided with dimensions of 1.8 metre length and spaced at 1.0 metre centres, accessible from a 1.5 metre aisle.

Accordingly, the proposed bicycle parking provisions are therefore considered appropriate.



8. Loading Considerations

Clause 65.01 of the Planning Scheme states that the responsible authority must consider a number of matters as appropriate including:

• The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.

Loading activities for residential dwellings associated with furniture movers/removalists when residents move in/out are anticipated to occur relatively infrequently.

It is therefore considered appropriate for delivery vehicles to utilise nearby on-street parking on Park Street or Kings Way (service road).

We understand that waste collection will occur on-street. On-street parking along Park Street will facilitate these arrangements.

The above arrangements are consistent with the approved scheme and is therefore considered acceptable.



9. Conclusions

Having undertaken a detailed traffic engineering assessment of the amended plans for the proposed residential development at 77 Park Street, South Melbourne, we are of the opinion that:

- a. the proposal provides car parking for the two-bedroom and three-bedroom dwellings in accordance to the requirements of Condition 15 (where relevant) and Clause 52.06 of the Planning Scheme, and seeks a dispensation in the statutory car parking requirements under Clause 52.06-5 of the Planning Scheme relating to 6 one-bedroom dwellings without parking.
- b. The proposed parking allocations, and the sought dispensation, are acceptable having regard to the location of the site, access to public and alternative transport modes, the ABS Data and that existing on-street management of parking will make it impractical for residents without on-site parking to own a car.
- c. The removal of the requirement for residential visitor parking is justified on the basis that there is no longer a requirement under Clause 52.06 due to changes brought about by Amendment VC148 since the issue of the permit. It is also impractical to provide visitor/non resident parking in the basement accessed via a car lift.
- d. the proposed parking layout and access arrangements accord with the requirements of the Planning Scheme, AS2890.1:2004 (where relevant) and current practice,
- e. the level of traffic generated by the proposal is consistent with the approved development and therefore will have no further impact on the surrounding network,
- f. bicycle parking is provided in accordance the requirements set out within the Planning Permit and Clause 52.34 of the Planning Scheme,
- g. the proposed loading and waste collection arrangements is consistent with the approved scheme and is considered acceptable, and
- h. there are no traffic engineering reasons why Amended Plans and changes to the Permit for the proposed residential development at 77 Park Street, South Melbourne, should be refused, subject to appropriate conditions.





Appendix A Swept Paths

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G24214R-01C

VEHICLE PROFILE

B99 SITE ACCESS - INGRESS

VEHICLE USED IN SIMULATION 5.20* 3.05 0.95 99th percentile (AS/NZS 2890.1:2004) 1.94 Width 1.84 Track 12.5m Kerb to Kerb Radius actual template based on 'relevant longitudina dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004 LEGEND REAR WHEELS - VEHICLE BODY FRONT WHEELS - BODY CLEARANCE



B99 SITE ACCESS- EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
А	29/03/2022	AMENDED PLANS	S.GOH	C.MORELLO
В	01/04/2022	AMENDED PLANS	S.GOH	C.MORELLO

77 PARK STREET, SOUTH MELBOURNE PROPOSED RESIDENTIAL DEVELOPMENT

GENERAL NOTES: BASE FILES FROM FENDER KATSALIDIS DATED MARCH 2022

FILE NAME: G24214-01 SHEET NO.: 01





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VEHICLE PROFILE

B99 BASEMENT CAR LIFT ACCESS - INGRESS

B99 BASEMENT CAR LIFT ACCESS - EGRESS







1.06

1.05

1.08

1.07

1.16

1.17

1.18

1.19

1.04

1.03

B85 TYPICAL END SPACE 01 - EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
А	29/03/2022	AMENDED PLANS	S.GOH	C.MORELLO
В	01/04/2022	AMENDED PLANS	S.GOH	C.MORELLO

77 PARK STREET, SOUTH MELBOURNE PROPOSED RESIDENTIAL DEVELOPMENT

GENERAL NOTES: BASE FILES FROM FENDER KATSALIDIS DATED MARCH 2022



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77 PARK STREET, SOUTH MELBOURNE PROPOSED RESIDENTIAL DEVELOPMENT

GENERAL NOTES: BASE FILES FROM FENDER KATSALIDIS DATED MARCH 2022





1.01



B85 TYPICAL PARALLEL SPACE - EGRESS



VEHICLE USED IN SIMULATION

4.91*





VEHICLE PROFILE

B85 TYPICAL END SPACE 02 - INGRESS



SCALE: 1:200 (A3)

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