

Traffix Group

Traffic Engineering Assessment

Proposed Mixed Use Development
200 Wells Street, South Melbourne

Prepared for



Pomeroy Pacific

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1. Introduction

Traffix Group has been engaged by Pomeroy Pacific to undertake a Traffic Engineering Assessment for the Proposed Mixed Use Development at 200 Wells Street, South Melbourne.

In June 2017, Planning Permit (906/2016) was issued by the City of Port Phillip allowing the development of the site at 200 Wells Street, South Melbourne for the purposes of a mixed use development, inclusive of residential dwellings, food and drink premises and office uses.

The permit was amended in October 2018.

The currently approved development contemplates 84 residential dwellings, 389 square metres of food and drink uses and 1,147 square metres of office.

A total of 115 on-site car parking spaces and 33 bicycle spaces, were proposed as part of the approved scheme.

Amended plans have been prepared by Batesmart, dated April 2021.

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

In the course of undertaking this assessment, we inspected the subject site, reviewed development plans and background material, and assessed the car parking and traffic impacts of the proposal.

Our assessment is as follows.

2. Existing Conditions

2.1. Subject Site

The subject site is located on the north-west side of the intersection of Wells Street and Park Street, in South Melbourne. The subject site has abutments to Park Street, Wells Street and Little Bank Street of approximately 30 metres, 50 metres and 30 metres, respectively.

A locality plan and photograph of the site frontage are provided at Figure 1 and Figure 2, respectively.

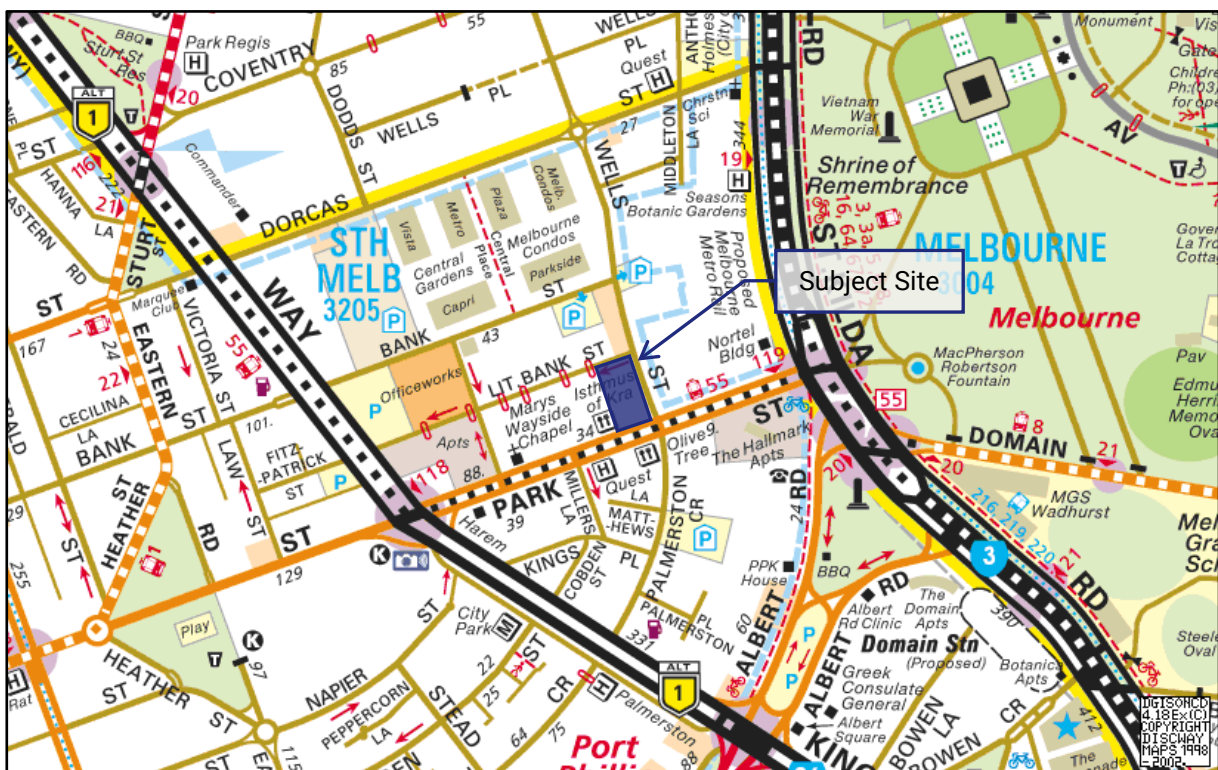


Figure 1: Locality Map



Figure 2: Site Frontage - View from Park Street

2.2. Subject Site and Use

The subject site is rectangular in shape with a total site area of approximately 1,570 square metres.

The site is currently vacant, however has historically occupied by commercial uses which we understand is used for the purpose of offices, a showroom, and a small retail tenancy.

Whilst we are advised that no parking historically took place on-site, an existing vehicle access to a garage roller door is provided along the Wells Street abuttal.

2.3. Planning Scheme Zones & Surrounding Uses

The site is situated in a mixed use zone under the Port Philip Planning Scheme, as presented at Figure 3. Land use in the immediate vicinity of the subject site is predominantly zoned as Mixed Use (MUZ), with commercial zoning to the east. Notably, the site is located in proximity to:

- Melbourne Royal Botanic Gardens and Shrine of Remembrance, located approximately 250m walking distance to the north-east of the site,
- Domain Interchange and the future Anzac Metro Station (to the east), and
- Melbourne Central City to the north.

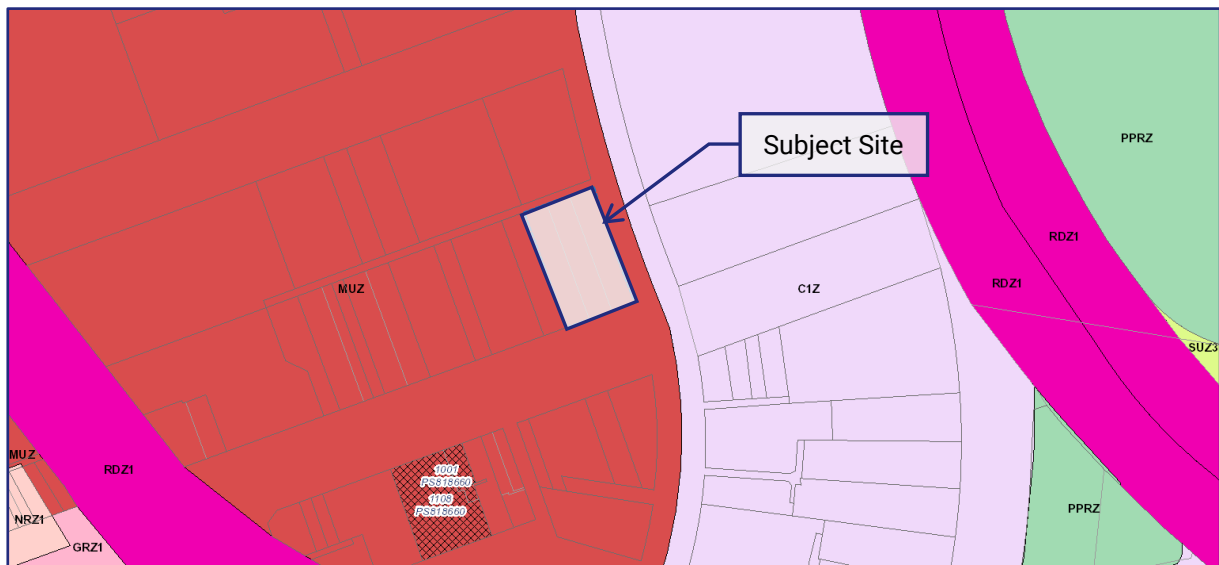


Figure 3: Planning Zone Map – Port Phillip

2.4. Road Network

Park Street is a major Council road extending between Nelson Road to the west and St Kilda Road to the east.

Along the site's frontage, Park Street is configured with an 18.3 metre wide carriageway which provides for a through traffic lane in each direction and a dedicated central tram fairway. A DDA accessible tram stop is located at the site abuttal.

On-street parking is provided further west of the site and is generally controlled by ticketed 1P 8am-6pm Monday to Friday restrictions.

Wells Street is a local road under the control of Council, which extends in a generally north-south direction between Grant Street to the north and Park Street to the south, where it continues further south as Palmerston Crescent.

In the vicinity of the subject site, Wells Street is configured with a 12.8 metre wide carriageway which provides for a wide through lane of traffic and kerbside parallel in each direction. On-street parking along the site's frontage is short-term in nature (1P Ticket 8am-6pm Monday-Friday).

The default urban speed limit of 50km/h applies to Wells Street.

Little Bank Street is a cobblestone laneway which extends between Wells Street and Park Street. Along the abuttal of the subject site Little Bank Street runs in an east-west orientation and allows for one-way traffic in a westbound direction only.

Little Bank Street is configured with an approximately 3.1 metre wide carriageway and provides access to the rear parking areas associated with various buildings fronting Bank Street and Park Street.

No Stopping restrictions apply along the entirety of Little Bank Street.

Photographs displaying the surrounding road network are provided at Figure 4 to Figure 9.



Figure 4: Park Street - View East



Figure 5: Park Street - View West



Figure 6: Wells Street - View North



Figure 7: Wells Street - View South



Figure 8: Little Bank Street - View East



Figure 9: Little Bank Street - View West

2.5. 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.

2.5.1. Walking

The site is well located to promote walking to everyday services.

The site is located within the St Kilda Road North Precinct and proximate to the Melbourne Central City and Southbank precinct, which offers a variety of retail, commercial, restaurant, cafe and entertainment uses.

The surrounding area includes a convenience supermarket directly west of the site and a full line supermarket within 1km. The area also provides a number of services such as banks, chemists and a post office within convenient walking distance of the site.

2.5.2. Bicycle Accessibility

The site is well serviced by the Principal Bicycle Network (PBN) with on-road and off-road bicycle paths linking the site to the City and surrounding municipalities, particularly those provided along Park Street, St Kilda Road and Albert Road.

2.5.3. Public Transport

The site is proximate to the Melbourne Central City and has accessibility to a number of tram services, including the recently constructed easy access tram stop immediately west of the site.

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

Table 1: Public Transport Services in the Vicinity of the Subject Site

	Service	Route	Distance to Node
Tram	Route 1	East Coburg – South Melbourne Beach	~600m on Park Street
	Route 3/3a	Melbourne Uni- East Malvern via City, St Kilda, & Caulfield	~120m on St Kilda Rd
	Route 5	Melbourne Uni- Malvern via City, St Kilda, Windsor, & Armadale	~120m on St Kilda Rd
	Route 6	Melbourne Uni- Glen Iris via City, St Kilda, Prahran, & Armadale	~120m on St Kilda Rd
	Route 16	Melbourne Uni- Kew via City, St Kilda Rd, St Kilda Beach, & Malvern	~120m on St Kilda Rd
	Route 58	West Coburg – Domain Interchange via City, Parkville & Sth Melbourne	Site's Frontage
	Route 64	Melbourne Uni- East Brighton via City, St Kilda Rd, Windsor, & Caulfield	~120m on St Kilda Rd
	Route 67	Melbourne Uni- Carnegie via City, St Kilda Rd, & Elsternwick	~120m on St Kilda Rd
	Route 72	Melbourne Uni- Camberwell via City, St Kilda Rd, & Brighton	~120m on St Kilda Rd

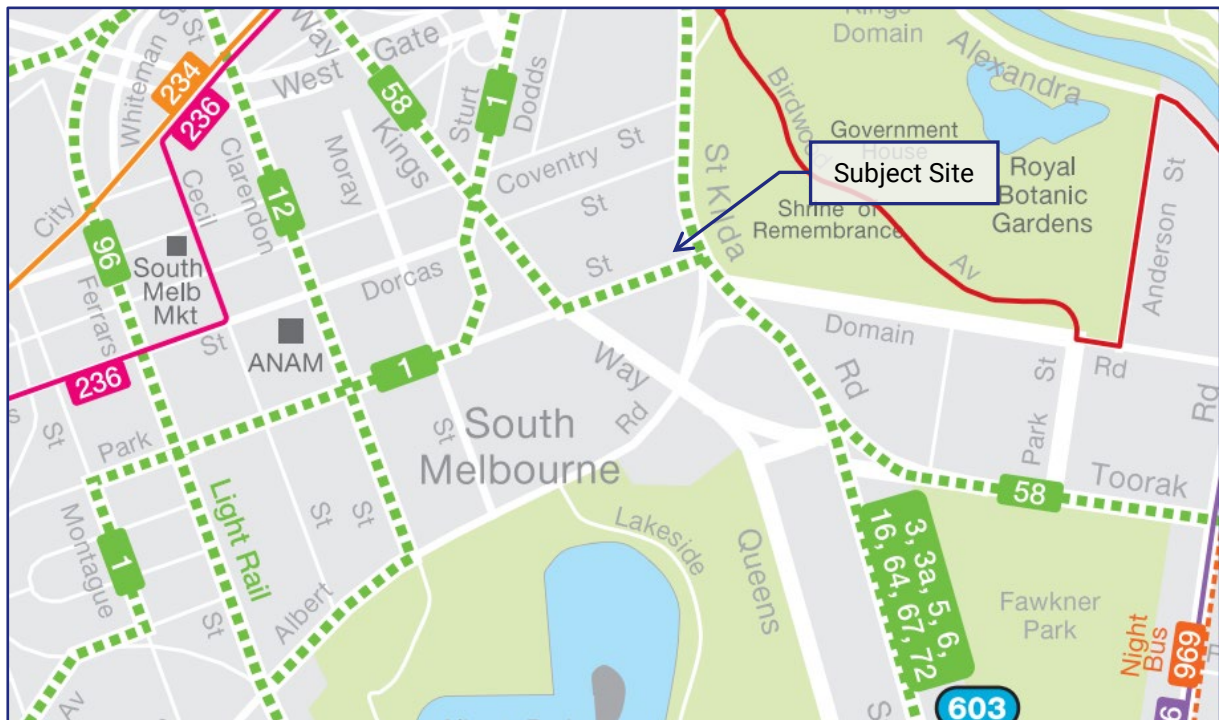


Figure 10: PTV Public Transport Map – Port Phillip

Source: Public Transport Victoria

Given the high level of public transport access in this locality, the proposed development is expected to generate car usage at a lower rate than a similar site within an inner suburban location with less accessibility to public transport.

It is also noted that the site is located approximately 300 metres west of the location of Anzac Station, part of the Melbourne Metro Rail Tunnel Project. Anzac station will provide a convenient and direct train / tram interchange with the inclusion of a new tram super stop on St Kilda Road. Anzac station will provide services on the Cranbourne/Pakenham lines, with links to the Frankston and Sandringham lines provided via South Yarra Station.

2.5.4. 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.

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.

The availability of a car share scheme provides a suitable alternative to the private motor vehicle as it allows users to make smarter travel choices and actively encourages them to seek alternate transport modes for the majority of trips.

Car share schemes provide access to a motor vehicle for the limited number of trips a car may be required. This opportunity to access a car is both convenient and cost-effective as motor vehicles can be hired on an hourly or daily basis.

A number of commercially operated car share pods are available proximate to the site, with the following three most closely located:

- Wells Street near Park Street (Go Get) on the site's eastern boundary.
- Bank Street near Kings Way (Go Get) approximately 290 metres north-west of the site.
- Bank Street near Wells Street (FlexiCar) approximately 90 metres north of the site.
- Park Street near Eastern Road (PopCar) approximately 400 metres west of the site.

The nearest existing car share pods (spaces) are shown in Figure 11.

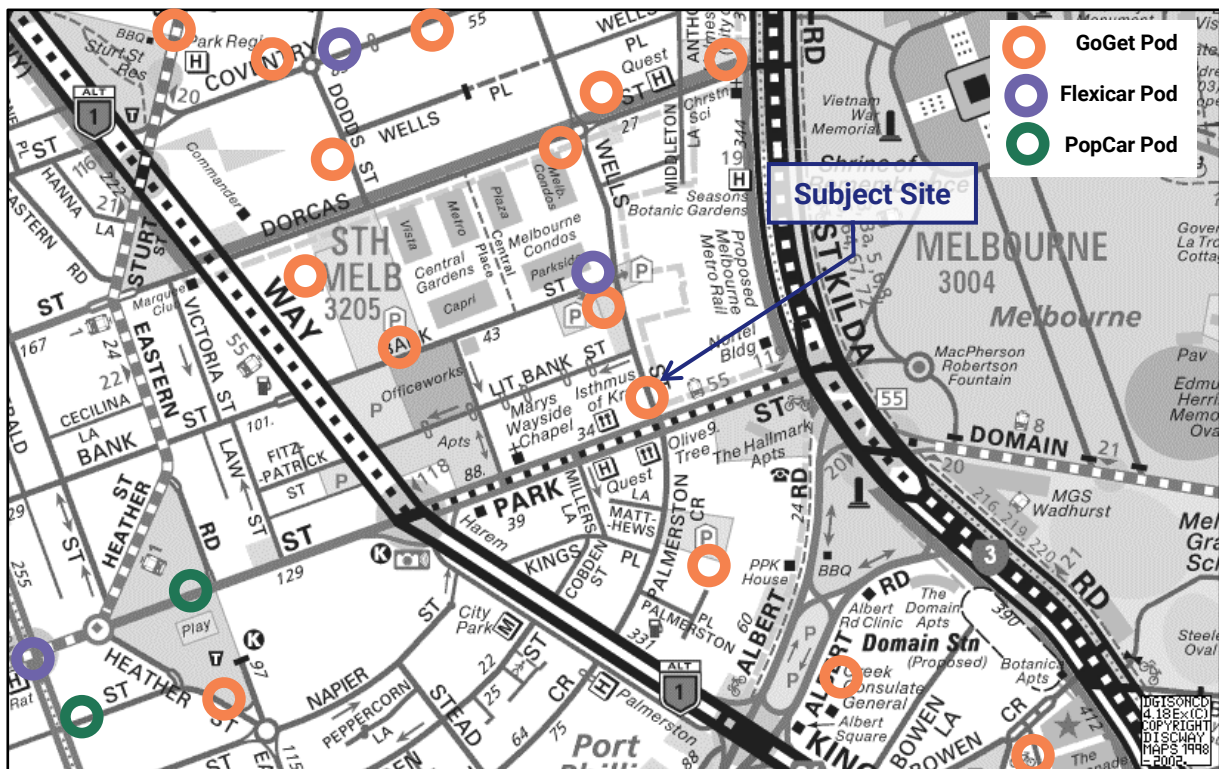


Figure 11: Proximate Car Share Pods

2.6. Existing Permit

The existing permit for the site allows for the development of the site for the purpose of 84 residential dwellings, 389 square metres of food and drink and 1,147 square metres of office floor area.

The approved development included the provision of 115 car parking to be allocated as:

- 1 space to each of the 36 one-bedroom apartments
- 1 space to each of the 36 two-bedroom apartments.
- 2 spaces to each of the 12 three-bedroom apartments (24 spaces).
- 3 car spaces for the food and drink tenancy for staff.
- 12 car spaces for the office use for staff (approximately 1.05 space per 100 square metres), and
- 4 car spaces for residential visitors/communal facilities.

Access to the on-site car parking was approved via Little Bank Street towards the north-east corner of the site.

The access to Little Bank Street will provide access to a ground floor car park and internal ramps will provide access to a single basement level and two podium car parking levels. The approved development provides a setback to Little Bank Street of 2.24 metres.

A formal loading bay was provided accessed directly of Little Bank Street. Waste collection was approved via the basement car park via a private contractor.

A total of 33 bicycle spaces were provided on the site, comprising six bicycle spaces at basement level one, 18 spaces within ground floor and nine bicycle spaces within level 1.

3. Proposal

3.1. The Development

The application seeks to amend the existing permit and approved scheme to increase the office and retail/food and drink floor area, reduce the number of dwellings, and modify the mixture of dwelling types.

A comparison of the proposed development schedule with the approved scheme is provided in Table 2.

Table 2: Proposed Development Schedule

Use		Approved Development	Current Scheme	Net Change
Residential	2 bed dwelling	72 no.	50 no.	-22 no.
	3+ bed dwelling	12 no.	31 no.	+19 no.
	Total	84 no.	81 no.	-3 no.
Retail/Food & Drink		389 m ²	551 m ²	+162 m ²
Office		1,147 m ²	5,076 m ²	+3,929 m ²

3.2. Vehicle Access

The proposal is to be set back approximately 2.3 metres as per the approved development and to allow for improved access along the northern abuttal of the site.

Consistent with the existing permit, access to the on-site car park will be provided from Little Bank Street, however the access location has been shifted to the west of the existing permit plans.

The application continues to provide a separate direct access from the widened Little Bank Street to an on-site loading dock.

3.3. Car Parking Provisions

The development will be constructed with a total of 159 on-site parking spaces. Car parking is proposed to be allocated as:

- 116 residential parking spaces, inclusive of:
 - 50 spaces to the 50 x two-bedroom dwellings (1 space/dwelling), in accordance with Condition 19 (c).
 - 66 spaces to the 31 x three-bedroom dwellings (2.13 spaces/dwelling)
- 33 office parking spaces (0.65 spaces / 100 m²)

- 6 retail staff parking spaces (1 space / 100m²)
- 4 visitor spaces.

The allocations for the two-bedroom apartments, office and retail staff and visitors are in accordance with the existing permit conditions.

The application seeks to amend the permit conditions in relation to three-bedroom dwellings to allow for some apartments to have more than 2 spaces.

3.4. Bicycle Parking

The application proposes the provision of 145 bicycle spaces, inclusive of 81 resident spaces (1 per dwelling), 50 staff, and 14 visitor spaces.

Resident bikes are provided within secure storage areas throughout the car park.

End of Trip facilities are proposed on-site for staff, inclusive of three showers and changerooms.

An additional shower has been provided within the DDA accessible toilet on each of the commercial office levels in addition to the shared End of Trip facilities.

Access to on-site bike parking will be predominantly via the internal lift lobbies.

3.5. Loading & Waste Collection

A dedicated on-site loading bay is proposed, accessed via the Little Bank Street access.

It will service vehicles up to 6.4 metre Small Rigid Vehicle.

Waste collection is to be undertaken within the basement car park by a 6.4 metres waste-wise Mini Hino.

4. Car Parking Considerations

4.1. Statutory Requirements – Clause 52.06

The car parking requirements for the proposed development are outlined under Clause 52.06 of the Port Phillip Planning Scheme. The purpose of Clause 52.06 is:

- To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not adversely affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

Clause 52.06-5 states that:

“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 12.

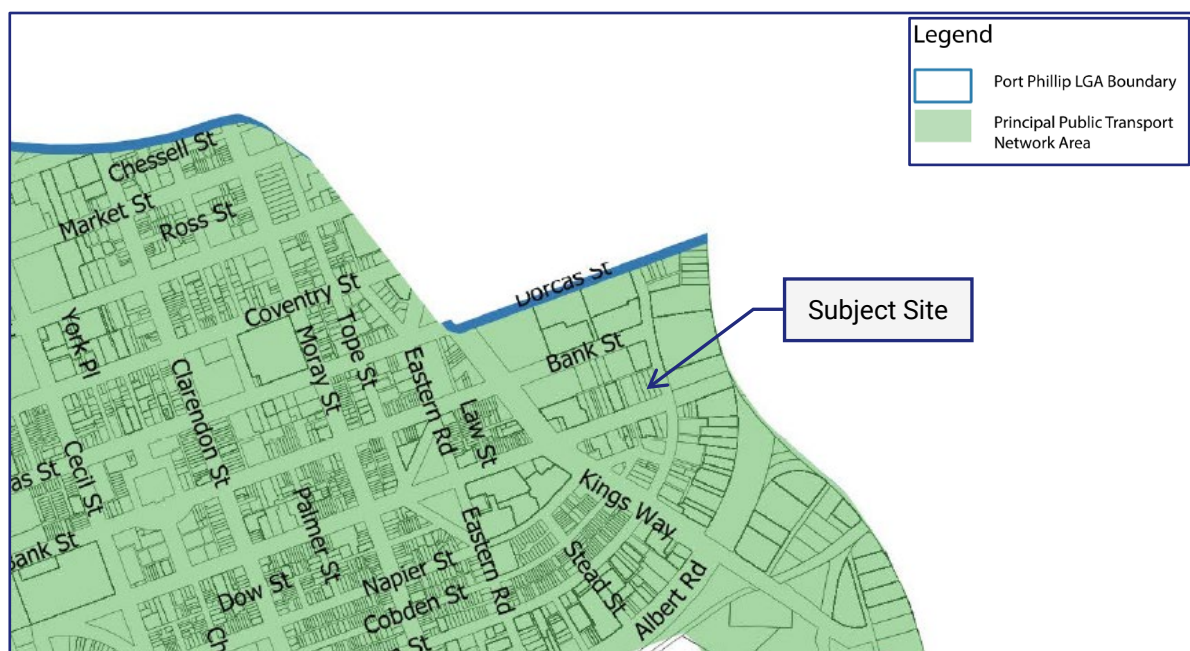


Figure 12: Port Phillip PPTN Area Map

The subject site falls within the PPTN area map and therefore Column B rates apply to the proposal.

A statutory assessment of the proposal under Clause 52.06 is provided at Table 3.

Table 3: Statutory Car Parking Requirements (Clause 52.06)

Use	No / Size	Statutory Requirement	No of Spaces Required
Residential Apartments	50	1 car space to each 2-bed dwelling for tenants	50 space
	31	2 car spaces to each 3-bed dwelling for tenants	62 spaces
Retail (Shop)	551 m ²	3.5 spaces to each 100 square metres	19 spaces
Office	5,076 m ²	3 spaces to each 100 square metres	152 spaces
Total			283 spaces

Based on the table above, the development is statutorily required to provide 112 car spaces for residents, 19 spaces for the retail use and 152 spaces for the office use.

The application proposes the provision of 159 car spaces and therefore a reduction in the parking provisions is sought.

The permit already allows for a dispensation in the parking provisions for 52 spaces, inclusive of 12 retail spaces, 28 office spaces and 12 residential visitors spaces.

This amended application seeks a higher dispensation for the office use, but is otherwise generally consistent with the existing approved rates.

Notably, there is no longer a requirement to provide visitor parking for residential uses under Clause 52.06.

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.

A discussion of the proposed allocations against the permit requirements, and having consideration to the Clause 52.06 requirements and existing permit, is provided as follows.

4.2. Permit Requirements

Condition 19 of the Planning Permit (906/2016) sets out the car parking requirements of the approved development. The conditions states:

19. Without the further written consent of the Responsible Authority car parking for the approved development must be allocated as follows:

- (a) A minimum of three spaces for the food and drink premises.*
- (b) A maximum of two spaces for each three bedroom dwelling.*
- (c) A maximum of one space for each one and two bedroom dwelling.*

- (d) No less than four car parking spaces for visitors.*
- (e) A minimum of twelve spaces for the offices.*
- (f) The loading bay to be shared by all occupants (commercial and residential) and used for loading and unloading purposes.*

We note that the permit grants Council discretion in approving variations to the requirements, without an amendment to the permit.

An assessment of the proposed provisions is as follows.

4.2.1. Retail Provisions

Condition 19 (a) requires a minimum provision of three spaces to the proposed retail uses. This provision equates to an effective rate of approximately 0.8 spaces per 100 square metres (based on the previous retail floor area).

The proposal includes the provision of six retail staff spaces for the amended retail floor area of 551 square metres, at a rate of 1.09 spaces per 100 square metres of floor area, therefore consistent with the minimum requirements of the permit.

The increased retail floor area of 162 square metres is expected to have a marginal increase in retail customer demands of up to four spaces. This increase in retail demands is not expected to have any discernible impact to the surrounding area.

Accordingly, the application proposes to allocate parking to the retail uses as per the requirements of the existing planning permit and the increased retail customer demand is expected to be manageable. The retail car parking provisions are therefore considered acceptable.

4.2.2. Residents

Condition 19 (b) and (c) require the provision of no more than 2 spaces to each 3-bedroom dwelling and 1 space for each one and two bedroom dwelling.

The proposal seeks to provide car parking to each dwelling generally in accordance with the requirements of Condition 19, with the exception of the 3-bedroom penthouse apartments which are intended to be allocated with 3 spaces each.

Whilst the general approach to parking in the inner city is to limit parking provisions where practical, this additional parking is targeted only at the penthouse apartments. These apartments are to be marketed as high end, luxury apartments, whereby some residents may own multiple vehicles, but are unlikely to use them all at the same time.

Whilst the provision of additional on-site parking for some residents (over and above the Planning Scheme requirements/permit maximum) may generate some additional traffic overall, this will be minimal during the peak hours. It will also not be a linear relation between number of spaces and traffic generation as additional car spaces generate only a proportion of the primary traffic generation rate for that dwelling.

This is an important aspect with regard to providing more parking in inner city areas, as developments seek to limit contributions to congestion and traffic impacts.

In this regard, the allocation of an additional car space to each of the penthouse apartments is considered acceptable as it will address potential market demands for this type of housing product but not result in significantly poorer traffic impacts.

Based on the preceding the additional car parking spaces are not expected to generate additional traffic and as such are considered to be acceptable.

4.2.3. Residential Visitors

Condition 19 (d) requires the provision of a minimum four visitor parking spaces.

Since the time of the permit issue, Amendment VC148 has been introduced to the Planning Scheme and therefore Column B rates apply to the site.

The Column B rates do not require the provision of visitor parking for residential developments. This is a change from the previous rates which were applicable to the site at the time of the permit issue.

Nevertheless, the proposal continues to provide a total of four on-site visitor parking spaces in accordance with the existing permit for the site.

4.2.4. Office

Condition 19 (e) of the Planning Permit requires a minimum provision of 12 car spaces to be allocated to the office use. Based on the approved scheme this equates to an effective car parking provision of 1.05 spaces per 100 square metres.

Whilst the provision of 33 car spaces for the office component exceeds the minimum requirements of the permit, the increased office area results in an effective rate of 0.65 spaces per 100 square metre.

The proposed development has excellent accessibility to public transport, bicycle infrastructure and car share facilities.

An easy access tram stop is provided along the sites frontage to Park Street which provides access to tram route 58. Additionally, the Domain Interchange which is serviced by eight tram routes is available within 120 metres of the site and Anzac Station will be constructed and operational in 2025. A number of bus routes also operate along St Kilda Road to the east of the site.

The proposal includes a generous provision of bicycle parking for employees with convenient cyclist/pedestrian access. These facilities will actively encourage future tenants and employees to travel to the site using alternative transport.

In effect by not providing on-site car parking in an area where there is a lack of unrestricted parking and high occupancy of long term ticketed parking in the vicinity of the site, the applicant is encouraging future office employees who are not provided with an on-site car parking space to seek alternative modes of transport to access the site, rather than utilise a motor vehicle. Consequently, the employee parking demand will be dictated by the supply.

We note that this rate and approach is consistent with recent approvals for office parking in inner city areas.

The proposed provision of parking for the office is therefore considered appropriate.

4.3. Conclusion

Based on the preceding, we are of the view that proposed allocations are appropriate and generally in accordance with the approved development.

It is important to also note that whilst the permit requires maximum provisions for residential apartments, the residential parking requirements under Clause 52.06 are minimums, not maximums.

Whilst the provisions for residential apartments exceed the rates in the permit, Council has discretion to approve alternative allocations.

Therefore, whilst an amendment to Condition 19 is not strictly required, it is suggested that Conditions 19 b) and c) of the permit (which relate to the maximum residential provisions) could be removed and the requirements would then revert to the standard Clause 52.06 minimums.

4.4. Car Parking Layout & Access Arrangements

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

A review of the car park layout reveals:

4.4.1. General Car Parking Layout

- 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.
- Where spaces have been provided with a reduced access aisle, they have been widened in accordance with the requirements of Clause 52.06 – Design Standard 2.
- Car spaces adjacent to walls have been provided with appropriate clearances to allow for satisfactory car door opening.
- Columns are appropriately located to provide for door opening allow for access into and out of spaces.
- A minimum head clearance of 2.2 metres is provided within all trafficable areas of the car parking area.
- A DDA parking bay has been provided generally in accordance with the requirements of AS2890.6:2009. A dedicated bay and shared area have been dimensioned at a minimum width of 2.4 metres, minimum length of 5.4 metres and provided with a minimum headroom clearance of 2.5 metres. It is noted that the proposed shared area is provided with an internal column, however this column is generally located as per the bollard requirements set out in AS2890.6:2009. Based on the preceding the column location within the shared area will have no detrimental impact to the operation of the DDA accessible spaces and is therefore considered acceptable.

- Parallel bays have been provided with minimum dimensions of 2.3 metres width and 6.7 metres length accessible from a 6.4 metre wide aisle, exceeding the Planning Scheme requirements.
- Tandem parking spaces have been provided with an additional 500mm length between spaces in accordance with Clause 52.06.

4.4.2. Access & Ramps

- The proposed building to Little Bank Street has been set back 2.24 metres addressing the requirements of Condition 1 (b) of the Planning Permit. A width of approximately 5.5 metres is provided along the site's northern boundary.
- The first 5 metres of the driveway within the site is provided with a grade of 1 in 10 satisfying the requirements of the Planning Scheme.
- The proposed security garage door is set-back a minimum 6.0 metres from the site boundary to allow an entering vehicle to store on the site without impact to accessibility on Little Bank Street.
- Ramps are provided as two-way ramps with a minimum width of 6.1 metres between walls as per AS2890.1:2004,
- The proposed access control at ground floor provides for two separate single-width driveways. Each driveway is provided with a minimum width of 3.6 metres as per AS2890.1:2004.
- The plans illustrate a maximum grade of 1 in 5 with transitions not exceeding 1 in 8 for not less than 2.0 metres, satisfying the requirements of the Planning Scheme.
- Swept paths have been prepared and attached at Appendix A demonstrating improved passing at the site boundary when compared to the existing approval.

Based on the foregoing, the access arrangements, grades, transitions and clearances have been assessed against the relevant standards and approved permit and are considered satisfactory.

5. Traffic Considerations

5.1. Traffic Generation

5.1.1. Approved Development

The approved development of the site contemplated a total of 26 vehicle movements during the network peak hours, inclusive of 17 residential movements and nine commercial movements.

5.1.2. Proposed Residential Component

Based on our experience traffic generation rates of residential dwellings are generally related to the number of dwellings rather than the associated car parking provisions.

Although the proposal seeks to amend the apartment mix to include additional larger dwellings it also seeks to reduce the overall number of dwellings on the site by three. As such we expect that any increase in the residential traffic generation due to larger dwellings will be offset by the reduction in dwellings.

Based on the preceding it is expected that any change to the overall traffic generation for residents will be negligible and therefore the generation will be generally consistent with the approved scheme.

5.1.3. Proposed Commercial Component

For the purposes of this analysis, it is assumed that traffic generation to the site by the retail component will comprise staff movements.

The proposal includes a provision of 24 additional staff spaces associated with the retail and office uses.

Consistent with the approved development, it has been assumed that 50% of the commercial parking provision will fill during the AM peak hour and vacate during the PM peak hour. Adopting these generation rates, it is expected that the commercial component of the development could generate up to 12 additional vehicle movements during the peak hours when compared to the existing approval.

5.1.4. Total Traffic Generation

Based on the preceding, it is projected that the proposal could generate up to 38 vehicle movements during the peak hours to and from Little Bank Street.

Importantly, the proposal will result in only 12 additional vehicle movements generated to/from the Little Bank Street over and above the existing approval.

5.2. Traffic Impact

Based on the preceding, we expect that the proposal could generate some 12 additional movements during the network peak hours.

This level of traffic generation is low in traffic engineering terms, equivalent to an average of not more than one additional vehicle movement being generated every 5 minutes during the peak periods.

This is a low level of traffic and will be split between arrivals and departures and will be able to be accommodated by the surrounding road network with no discernible impact to the operation of Little Bank Street.

It is noted that the approved scheme did not provide for passing opportunities at the site boundary and required vehicles to give way to opposing vehicles within Little Bank Street. The amended plans provide for an access control at ground floor with separate inbound and outbound lanes, allowing for greatly improved passing opportunities to be accommodated wholly the site and resulting in no external queueing within Little Bank Street.

As such, the proposal is expected reduce the impacts on Little Bank Street when compared to the approved development.

6. Bicycle Considerations

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

The relevant requirements are summarised in Table 4.

Table 4: Statutory Bicycle Parking Requirements

Use	Units	Statutory Requirement	No. Of Spaces Required
Dwellings	81 dwellings	1 space per 5 dwellings for residents 1 space per 10 dwellings for visitors	16 resident spaces 8 visitor spaces
Retail	551 m ²	1 space per 300 square metres for staff 1 space per 500 square metres for customers	2 staff spaces 1 visitor space
Office	5,076 m ²	1 space per 300 square metres for staff 1 space per 1,000 square metres for customers	17 staff space 5 visitor spaces
Total		Resident Staff Visitors	16 resident spaces 19 staff spaces 14 visitor spaces

Based on the above assessment, the development is required to provide a total of 49 bicycle spaces, comprising 16 resident spaces, 19 staff spaces and 14 visitor spaces.

The requirement for 19 staff spaces also triggers a requirement for End of Trip Facilities at a rate of 1 shower/changeroom for the first 5 bicycle spaces and 1 space for each 10 bicycle spaces thereafter.

The application plans illustrate the provision of 145 bicycle spaces, inclusive of 81 residential spaces, 50 staff spaces and 14 visitor spaces.

End of Trip facilities with three showers and changerooms is also provided. It is noted that showers are proposed at each commercial office level within the development in addition to the End of Trip facilities.

These provisions exceed 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.

7. 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.*

The existing permit allows for on-site loading within the ground level car parking, which effectively served passenger vehicles and vans only.

The amended scheme provides for a dedicated on-site loading bay at ground floor accessed direct from Little Bank Street along the site's northern boundary. The loading area will provide access for vehicles up to a 6.4 metres Small Rigid Vehicle (SRV), offering more flexibility for the tenants on the site.

The loading dock is provided with dimensions of 3.94 metres width, approximately 8.85 metres length and a height clearance of 3.5 metres. These dimensions are generally in accordance with the requirements of Condition 1 (b) with the exception of loading width.

Vehicle accessibility into the loading area has been demonstrated via swept paths attached at Appendix A.

The loading dock will be shared in accordance with Permit Condition 19 (a).

Waste collection will be undertaken by a private contractor within the basement car park consistent with the existing approval. Collection will be undertaken by a 6.4 metre Waste-Wise Hino.

Vehicle accessibility has been demonstrated via swept paths attached at Appendix A.

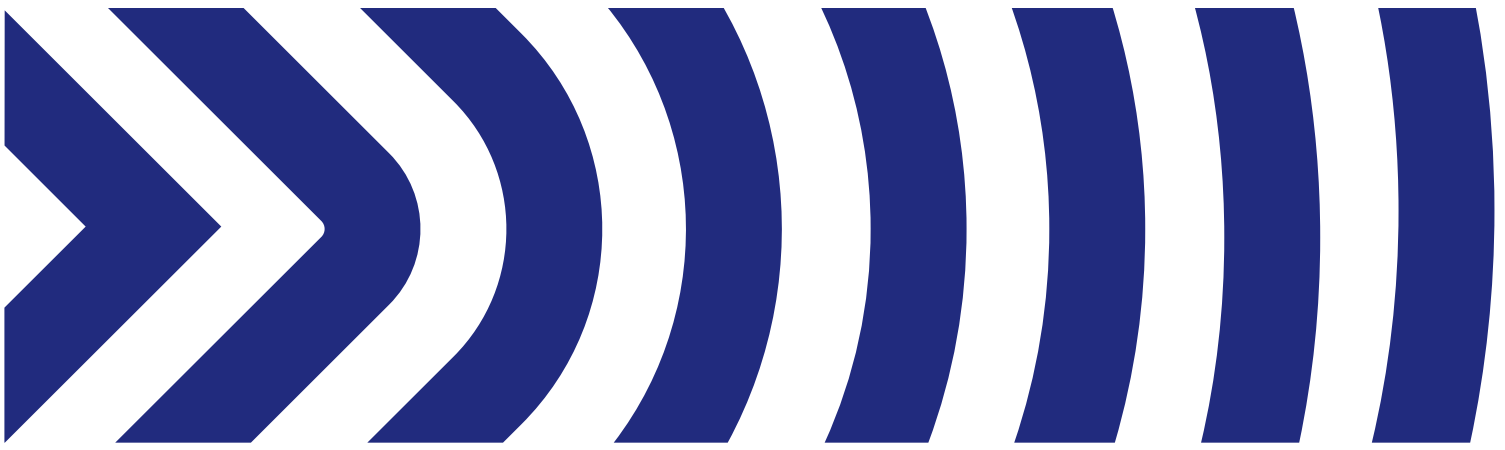
Based on the preceding, the proposed loading arrangements are generally consistent with the existing permit and arguably provide more flexibility for future tenants.

The loading arrangements are therefore appropriate.

8. Conclusions

Having undertaken a detailed traffic engineering assessment of the proposed mixed use development at 200 Wells Street, South Melbourne, we are of the opinion that:

- a. The proposed development has a statutory car parking requirement of 283 car spaces under Clause 52.06-5 of the Planning Scheme and the provision of 159 car space results in a shortfall of 124 car spaces.
- b. The allocations of parking meet the requirements of Permit Condition 19, with the exception of the allocation of parking for the three-bedroom penthouse apartments.
- c. Based on our assessment, the allocations are appropriate as:
 - i) Council has discretion to vary the allocations of parking under the current wording of the Permit Condition,
 - ii) The allocation of an additional space to 4 x 3-bedroom apartments is in line with market demand for high end, luxury apartments.
 - iii) It is noted that whilst more parking is provided for the office use, the 'floor area rate' is reduced and there is a greater dispensation sought for this use. This reduction is supported on the following grounds:
 - i. _the site is located within a general activity centre area and is very well served by public transport and alternative transport modes,
 - ii. _staff without car parking will not be able to maintain a vehicle on-street given the local parking restrictions and utilisation, and
 - iii. _overall, the amended application will be reliant on a level of on-street parking generally consistent with the approved development, and
- d. The proposed parking layout and access arrangements accord with the requirements of the Planning Scheme, AS2890.1:2004 (where relevant), current permit and current practice,
- e. The level of additional traffic generated by the proposal when compared to the existing permit is acceptable and, once split between arrivals and departures, will not have a detrimental impact on the surrounding road network,
- f. Bicycle parking is provided in excess of the requirements set out at Clause 52.34 of the Planning Scheme,
- g. The on-site loading area has been designed to meet the objectives of Clause 65.01 of the Planning Scheme, and
- h. There are no traffic engineering reasons why the amended scheme for the proposed mixed use development at 200 Wells Street, South Melbourne, should not be accepted, subject to appropriate conditions.



Appendix A

Swept Paths

This diagram is a detailed architectural floor plan of a building, likely a school or institutional structure, showing a complex network of movement paths. The plan includes a large central hall, a staircase, and a parking area with a car. A red 'X' marks a specific location in the upper right section. The movement paths are indicated by blue and green lines with arrows, showing a flow from the top left towards the center and then branching out into various rooms and the parking area. The paths are overlaid on a grid of rooms and corridors, with some rooms containing furniture like desks and chairs. The overall layout suggests a high level of connectivity and movement within the building.



Technical drawing of a truck chassis showing dimensions: total length 6400, wheelbase 3800, and front overhang 1050.

Width	:	2300
Track	:	2300
Lock to Lock Time	:	6.0
Steering Angle	:	38.0

Diagram illustrating the dimensions of a car (likely a sedan) used in the experiment. The car is shown in profile, facing left. The dimensions are indicated by arrows and labels:

- Overall length: 5.20*
- Distance from the front wheel to the start of the car: 0.95
- Distance from the start of the car to the end of the car: 3.05

Width	: 1.94
Track	: 1.84
Kerb to Kerb Radius	: 12.5m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

- REAR WHEELS
- FRONT WHEELS
- VEHICLE BODY
- BODY CLEARANCE

REV.	REVISION NOTES	REVISION DATE
A	TOWN PLANNING	21/04/2021

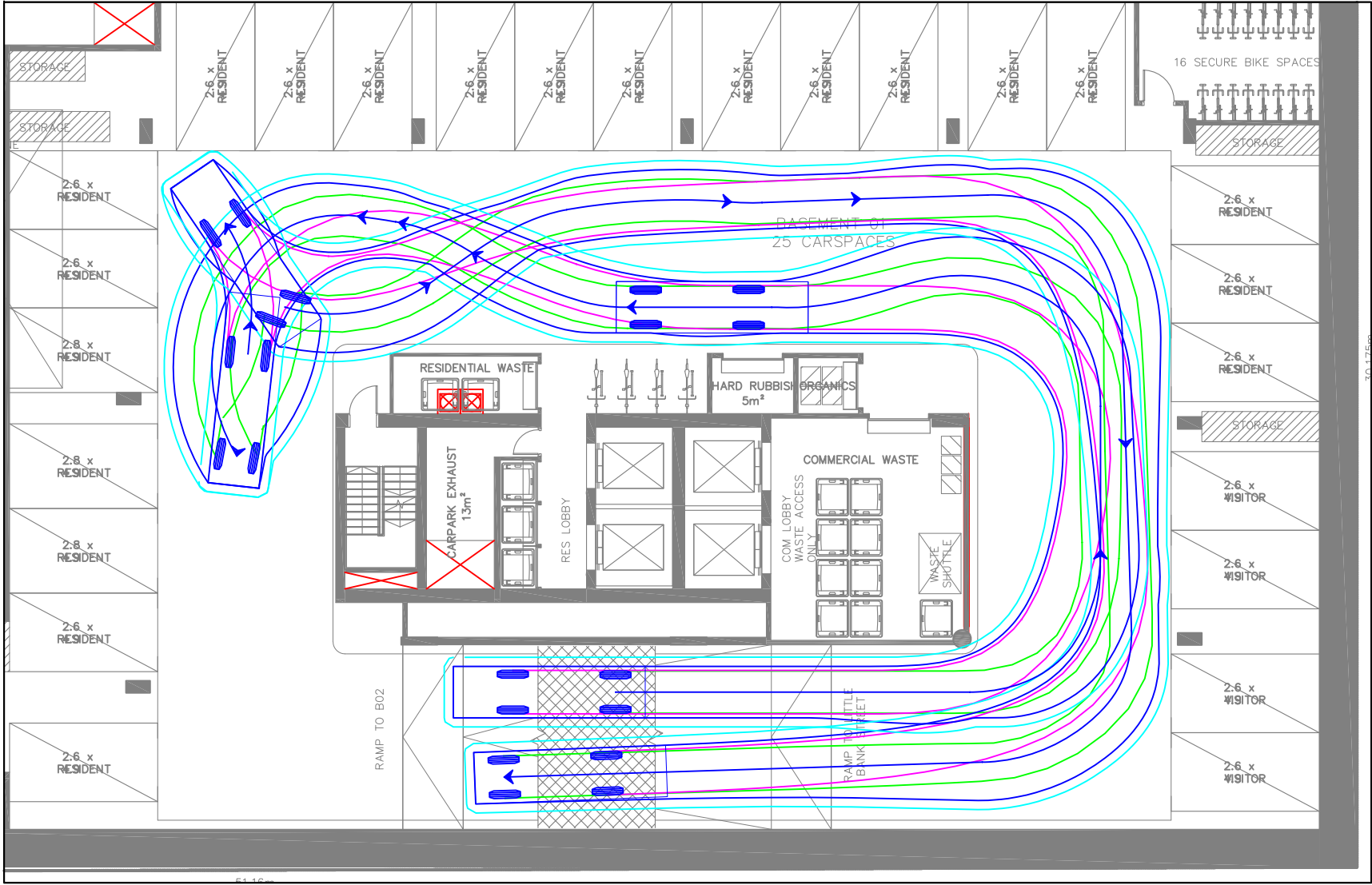
ISSUE:
A

Level 28, 459 Collins Street
MELBOURNE VICTORIA 3000
TEL : (03) 9822-2888

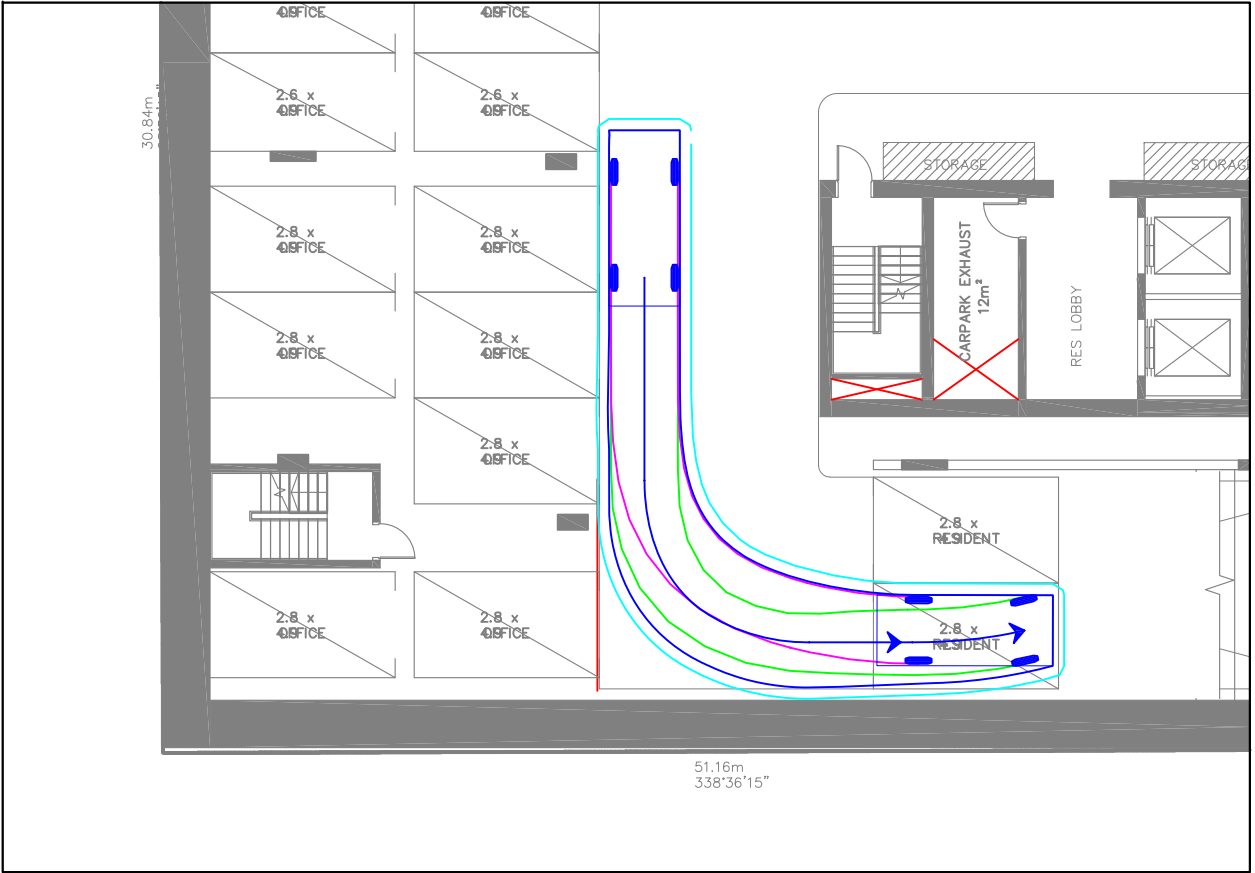
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JOB NO.: G29542

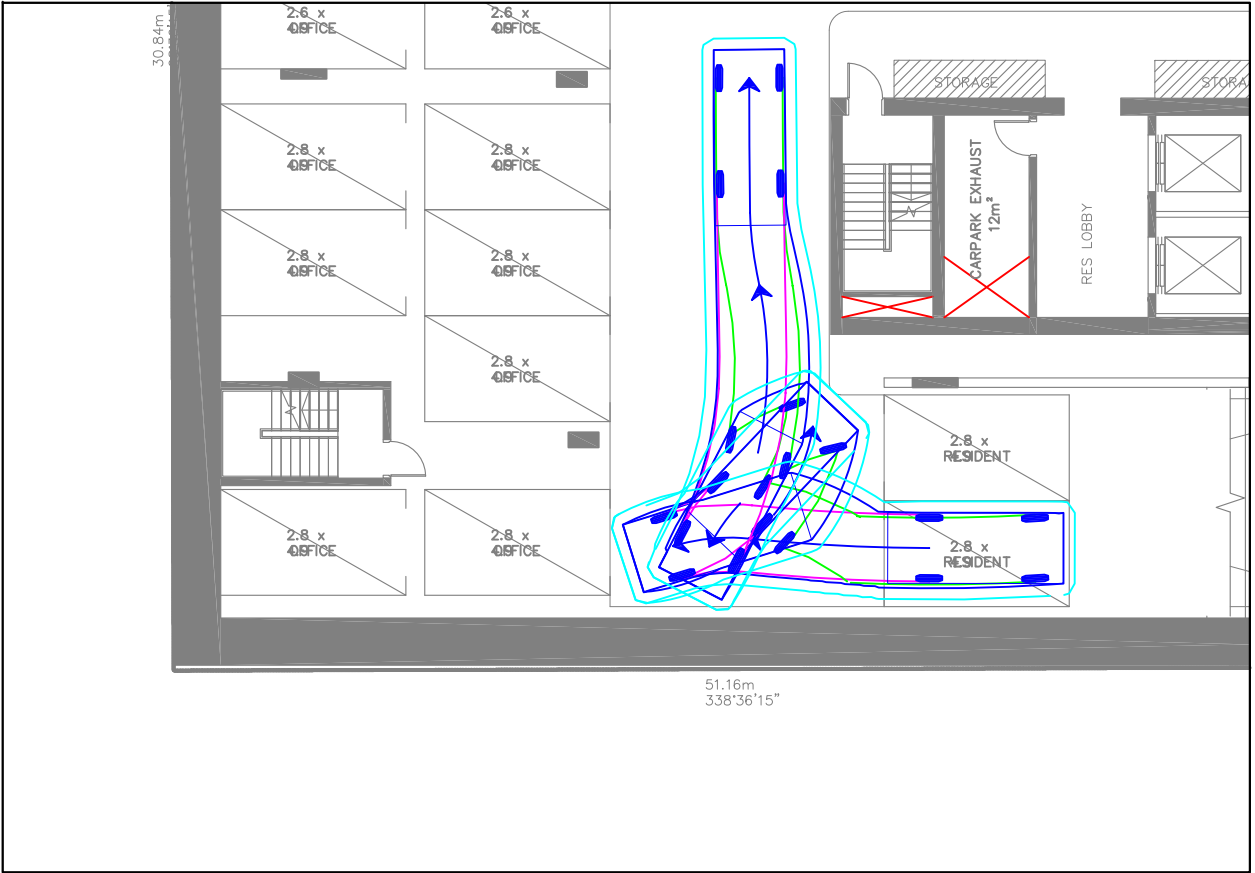
WASTE COLLECTION - WASTE WISE MINI CIRCULATION



CAR SPACE 01 - INGRESS



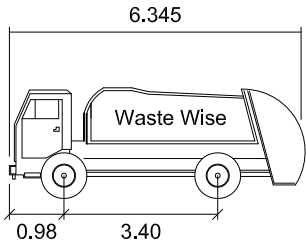
CAR SPACE 01 - EGRESS



LEGEND

- REAR WHEELS
- FRONT WHEELS
- VEHICLE BODY
- BODY CLEARANCE

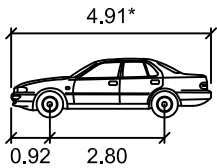
VEHICLE USED IN SIMULATION



Waste Wise Mini (Hino 300)

Width : 1.7m
Front Track : 1.4m
Rear Track : 1.44m
Kerb to Kerb Radius : 12.4m

VEHICLE USED IN SIMULATION



85th percentile
(AS/NZS 2890.1:2004)

Width : 1.87m
Track : 1.77m
Kerb to Kerb Radius : 11.5m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

PRELIMINARY ONLY
NOT FOR CONSTRUCTION

REV.	REVISION NOTES	REVISION DATE	GENERAL NOTES:	DESIGNED BY:	21/04/2021	Traffix Group <small>Level 28, 459 Collins Street MELBOURNE VICTORIA 3000 TEL : (03) 9822-2888</small>	200 WELLS STREET, SOUTH MELBOURNE DESIGN VEHICLE SWEEP PATHS PROPOSED MIXED USE DEVELOPMENT		
A	TOWN PLANNING	21/04/2021	BASE INFORMATION FROM PLANS PREPARED BY BATESSMART DATED APRIL 2021	J. COSSINS	21/04/2021		SCALE:	0 2 4	SHEET NO.: 02/02
				CHECKED BY:	21/04/2021		1:200 (A3)		DRAWING NO.: G29542
				C. MORELLO					
				FILE NAME:	G29542-01-20210421.DWG		ISSUE:	A	