Traffix Group

Traffic Engineering Assessment

Proposed Mixed Use Development

60-70 Park Street, South Melbourne

Prepared for
Park Street Development Partnership Pty Ltd

February 2026

G34716R-01H

[redacted]

Document Control

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1. Introduction

Traffix Group has been engaged by Park Street Development Partnership Pty Ltd to undertake a traffic engineering assessment for a proposed mixed use development at 60-70 Park Street, South Melbourne.

2. Proposal

The proposal is for a primarily residential development on the site as set out in the following table. A copy of the development plans prepared by DKO are attached at Appendix A.

Table 1: Development Summary

Characteristics	Description		
Uses	**Size/No.**	**Car Parking**	**Notes**
Dwellings:			Parking rates:
Studio	10	0	None
One-bedroom Apt.	102	0	None
Two-bedroom Apt.	163	42	0.26/dwelling
Three-bedroom Apt.	22	44	2/dwelling
Subtotal	297	86	0.29/dwelling overall
Food & Drink Premises	128m^2	0	None
Car Parking Provision		86 car spaces	41 B1, 9 G and 36 L1 & L2
Car Share		2 car spaces	At ground level

Bicycle Parking Provision		132 bicycle spaces	
Other	**Notes**		
Vehicle Access	Existing single width crossover to Park Street being reused for carpark entry. Carpark exit via Little Bank Street at northern boundary.		
Changes to on-street parking	None		
Loading Provision	On-site loading bay for SRV accessed directly via Little Bank Street (western boundary)		
Waste Collection	Within loading bay using Hino mini-waste truck		

3. Existing Conditions

3.1. Subject Site

The subject site is 60-70 Park Street, South Melbourne. The table below summarises the key characteristics of the subject site.

Table 2: Subject Site Description

Characteristic	Description
Address	60-70 Park Street, South Melbourne
Area	2,050m^2
Frontages	40.6m to Park Street along southern boundary 51.2m to Little Bank Street along western boundary 40.7m to Little Bank Street along northern boundary
Zoning	Mixed Use Zone – MUZ
Current use of site	60 Park Street – two storey office 68 Park Street – single storey dental clinic 70-74 Park Street – three storey office

Car parking and loading provision	60 Park Street – Ground level carpark 68 Park Street – Ground level carpark 70-74 Park Street – Ground level carpark
Vehicle access	60 Park Street –access to Little Bank Street along northern boundary 68 Park Street – access to Little Bank Street along northern boundary 70-74 Park Street – access to Little Bank Street along northern boundary
On-street parking along site frontage	5x 1P Ticket 8am-6pm Monday-Friday on Park Street

A locality plan, aerial photograph and land use zoning map is provided at Figure 1 to Figure 3.

Significant nearby land uses include:

- **IGA Local Grocer,** 65m east of the site
- **The Shrine and surrounding parklands,** beginning 300m north east of the site
- **ANZAC Station** entrance, approximately 300m east of the site
- **Albert Park area,** beginning 400m south of the site
- **Clarendon Street Activity Centre,** approximately 800m west of the site
- **South Melbourne Market,** approximately 1km west of the site

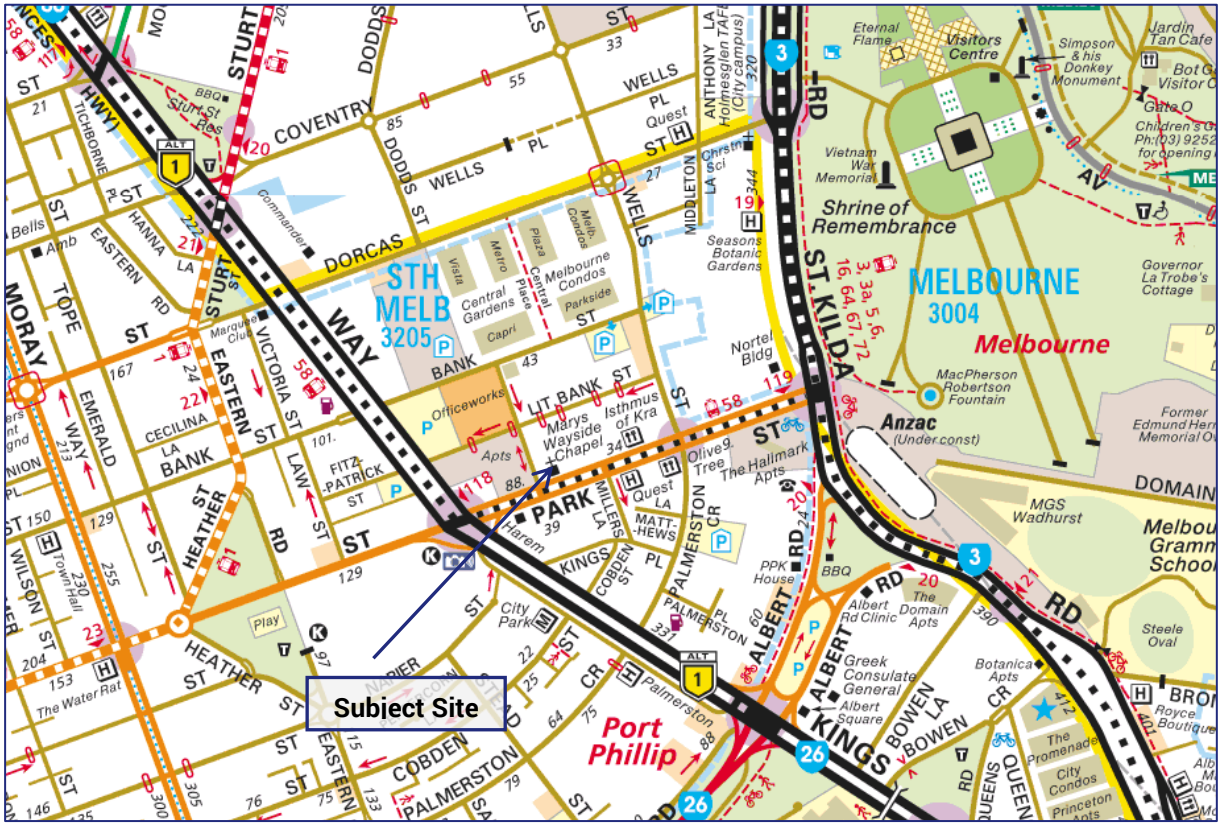


Figure 1: Locality Plan (Source: Melway)

Figure 2: Aerial Photograph (Source: Nearmap)

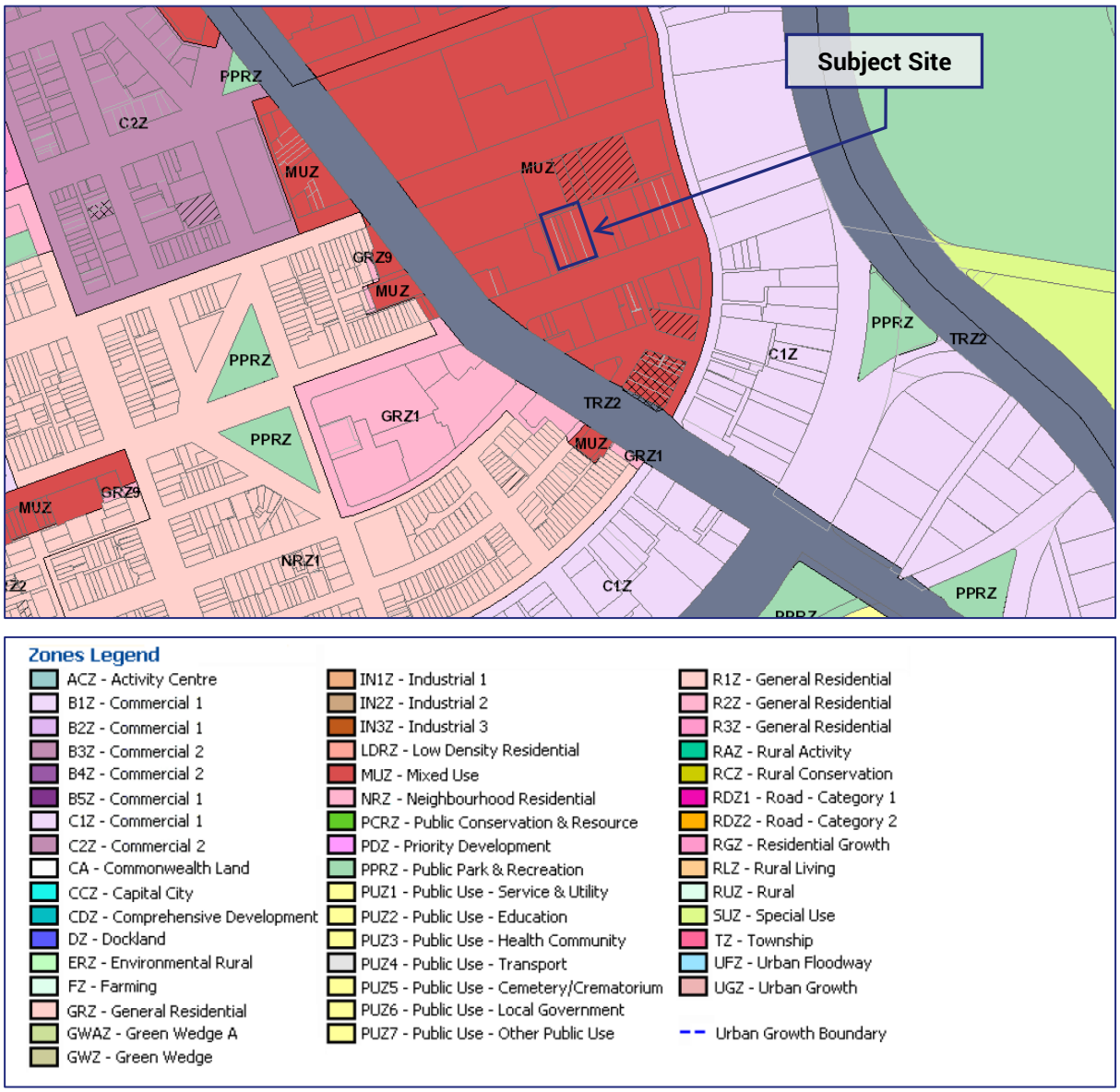


Figure 3: Land Use Zoning Map (Source: Planning Schemes Online)

3.2. Transport Network

3.2.1. Road Network

A summary of the local public road network is provided in the table below. Photos of the surrounding road network are presented following the table.

Table 3: Local Road Network

Road Name	Agency	Classif-ication	Transport Zone	Configuration	Speed Limit	On-Street Parking
Park Street	Council	Major Road	No	One traffic and kerbside parking lane on the northern side of the carriageway. Two lanes of traffic on the southern side of the carriageway Tram tracks in central median	40km/h	Kerbside parking, except around tram stop.
Little Bank Street	Council	Local Road	No	North-South Section: 13m wide at intersection with ROW 7.3m wide at intersection with Park Street East-West Section: 3.3m wide	N/A	None

Little Bank Street forms an L-shaped link between Wells Street and Park Street. There are two private accessways associated with the 'Officeworks' site that connect Little Bank Street to Bank Street and Kingsway. This is illustrated in the figure below, with the red arrows indicating the legal direction of travel.

Figure 4: Aerial photo of local road network (Source: Nearmap)

Figure 5: Park Street – view east

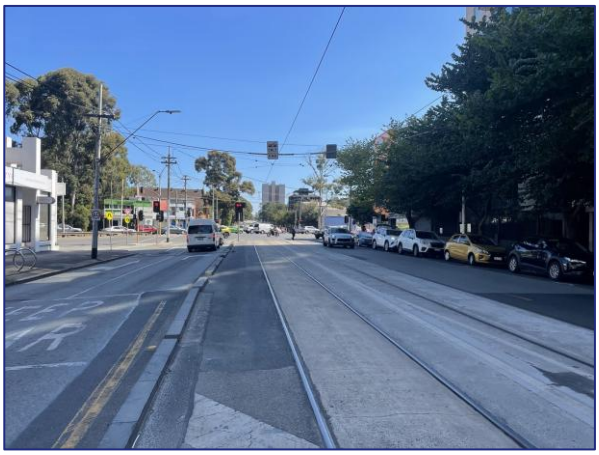


Figure 6: Park Street – view west

Figure 7: Little Bank Street – view north

Figure 8: Little Bank Street – view south

Figure 9: Little Bank Street – view east

Figure 10: Little Bank Street – view west

3.2.2. Existing Traffic Conditions

Traffix Group has undertaken AM and PM peak period traffic counts of the Little Bank Street and its intersection with Park Street on Tuesday 3rd March, 2024, between the hours of 7am-9am and 4pm-6pm. These times cover the typical road network peak hours and the peak hours for the new development.

The surveys identified the following peak hours:

- AM peak – 8-9am
- PM peak – 5-6pm

A summary of the peak hour traffic counts is presented in the figure below.

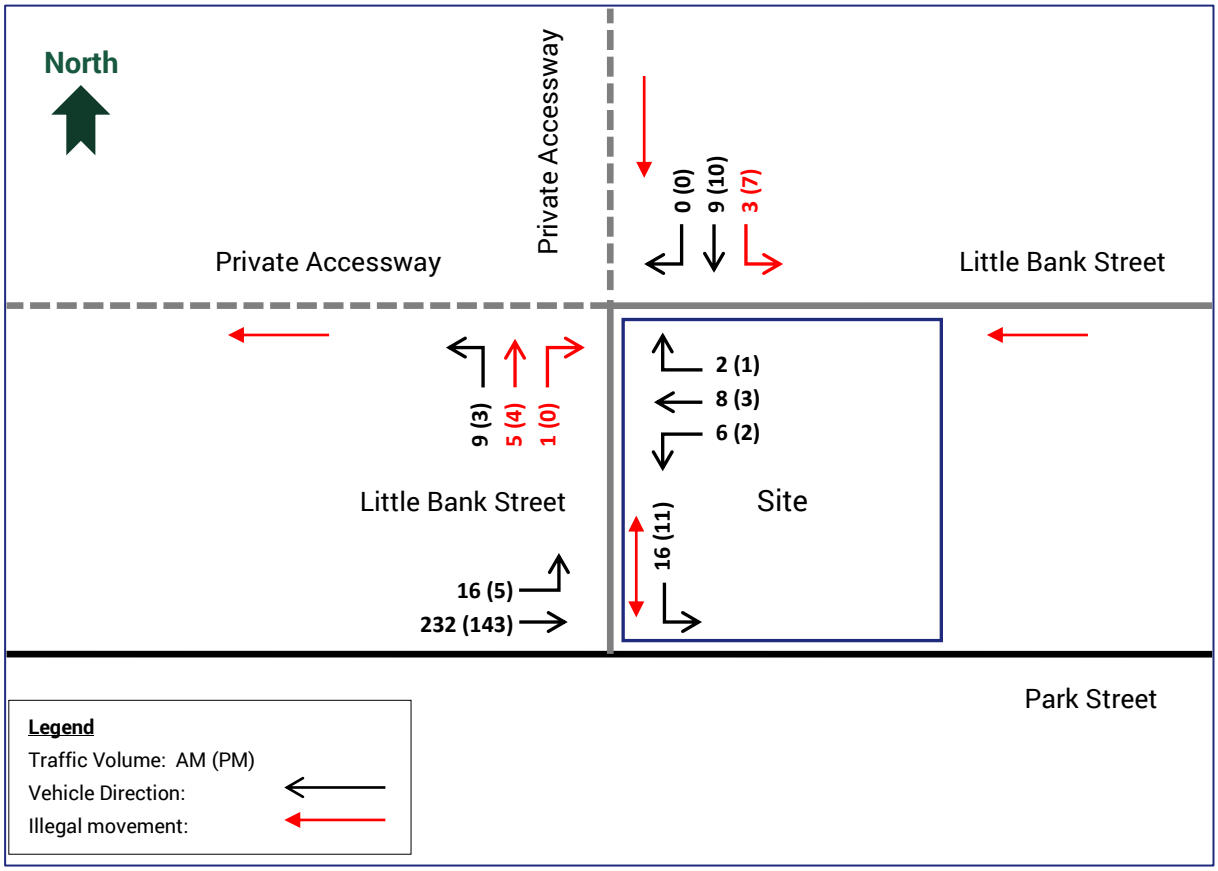


Figure 11: Existing Traffic Conditions

Little Bank Street carries a modest volume of traffic:

- 16 to 32 vehicles per hour in its two-way section
- 6 to 16 vehicles per hour in its one-way section

A summary of the peak hour pedestrian activity is presented below.

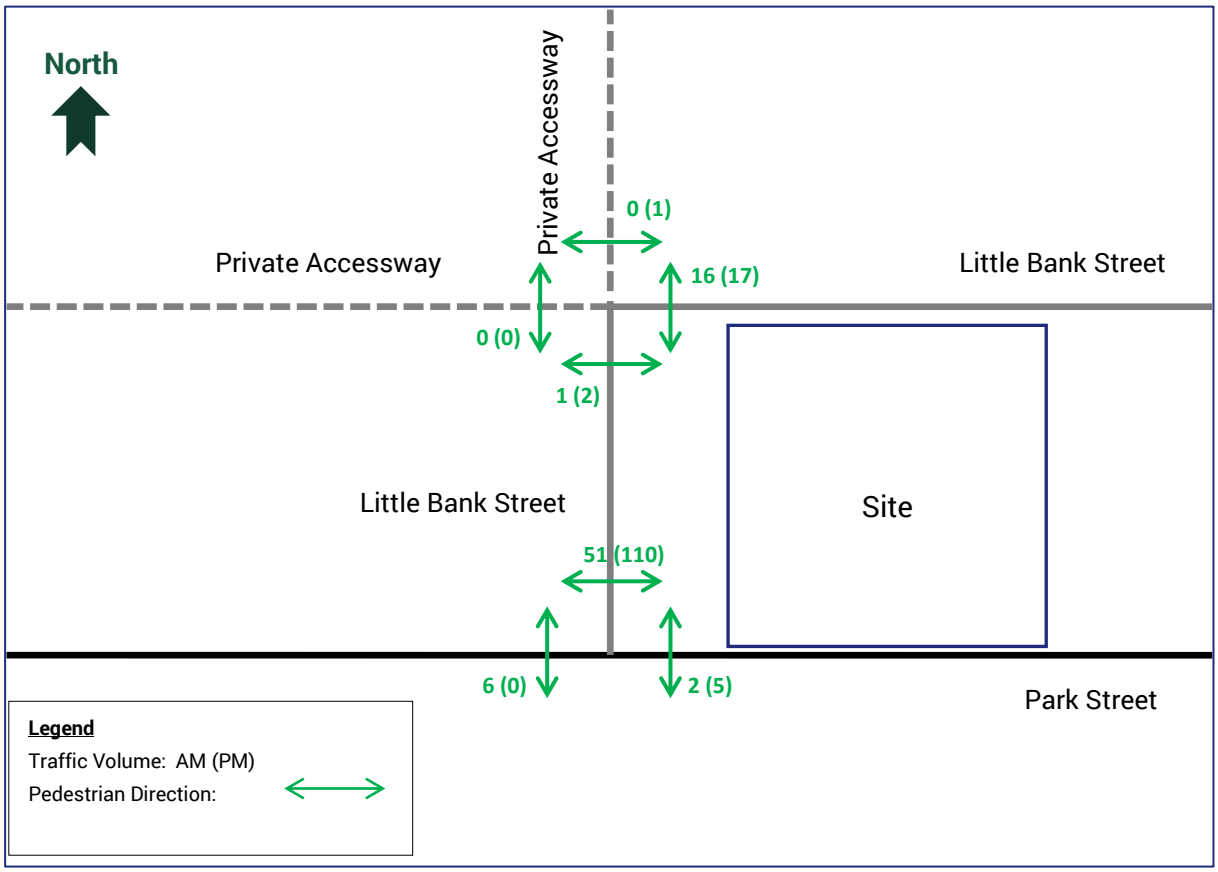


Figure 12: Existing Pedestrian Conditions

Pedestrian volumes in the laneway network are low, however there is a modest number of pedestrians travelling north-south between Bank Street and Park Street (about 1 every 4 minutes).

3.2.3. Car Parking Conditions

Traffix Group completed an inventory of on-street parking during the site inspection on Friday 22nd March, 2024 at 12pm. The detailed parking inventory is presented at Appendix B.

The survey area is presented in the figure below, which comprises an area of approximately 200m around the subject site.

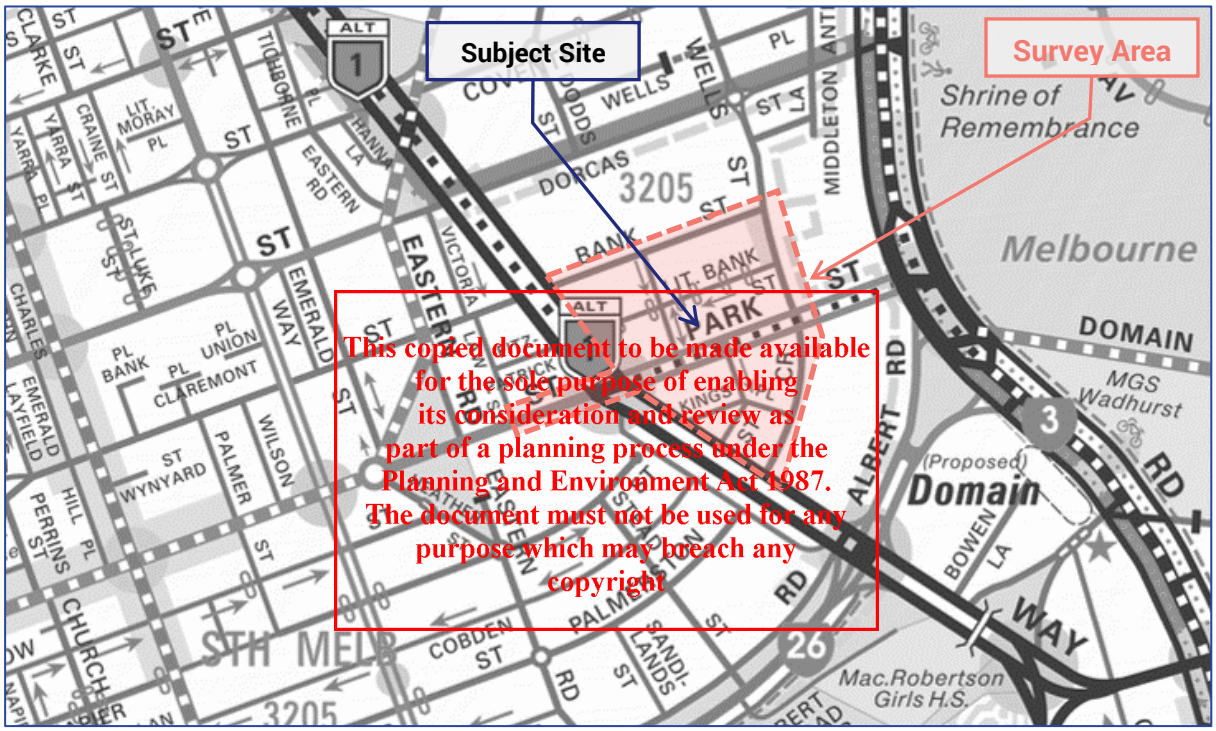


Figure 13: Parking Survey Inventory (Source: Melway)

The key findings of the inventory were:

- There are 202 on-street car spaces within approximately 200m of the subject site.
- A parking meter or ticket meter applies for the majority of parking restrictions in the area.
- There is a mixture of timed restrictions (P or 1P or 2P or 3P) restrictions with the majority of the restrictions apply during business hours on weekdays.
- There is no unrestricted parking in the nearby area.
- At the time of the inventory (12pm Friday 22nd March, 2024), there were 43 vacant car spaces at 79% occupancy.

3.3. Alternative Transport Modes

3.3.1. Public Transport

The site is well served by public transport services, with train, tram and bus services available. The site is located within the Principal Public Transport Network area (PPTN).

The diagram below illustrates the location of the nearest public transport services and the walking distance/time to these stops.

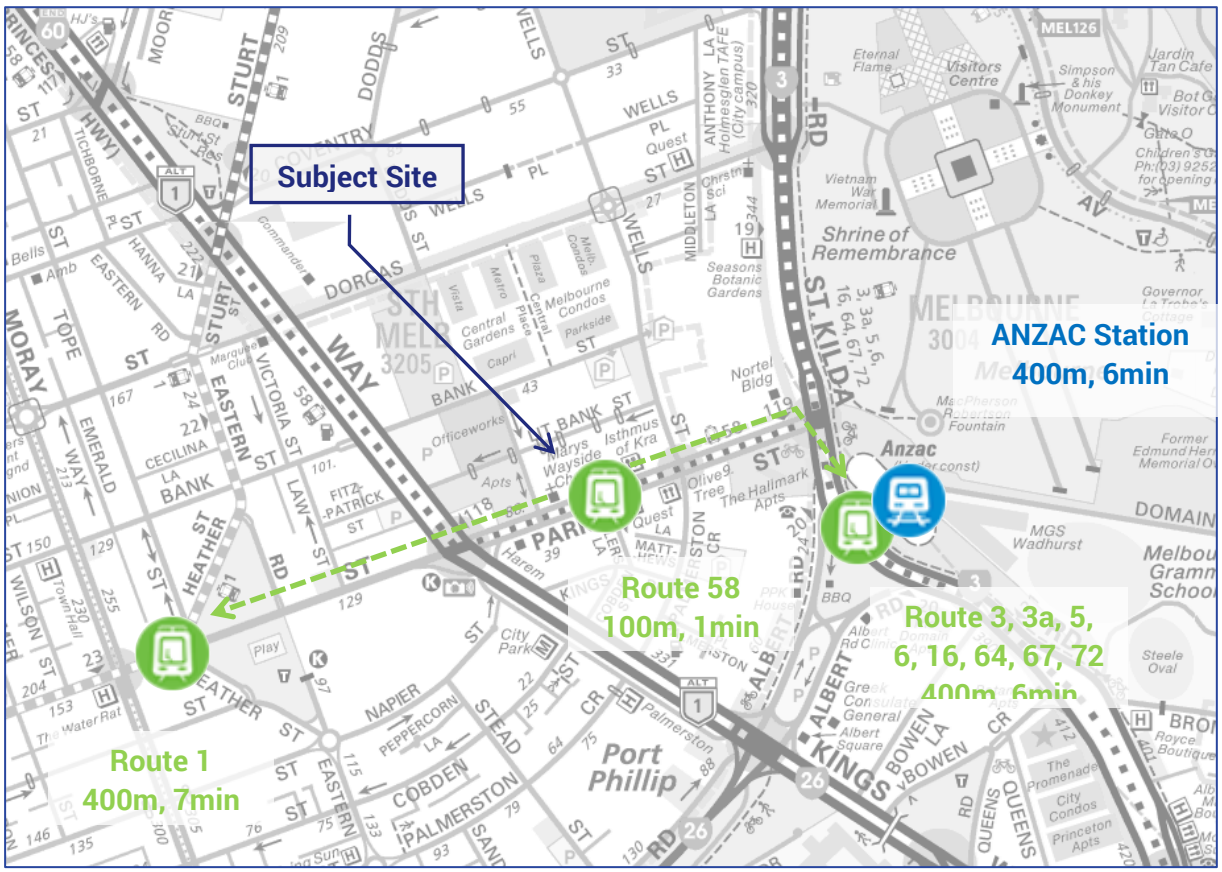


Figure 14: Walking Distance to Nearest Public Transport Stops (Source: Melway Online & PTV)

A map of the broader services provided at Figure 15.

The PPTN network map is provided at Figure 16.

A summary of available services is provided at Table 4.

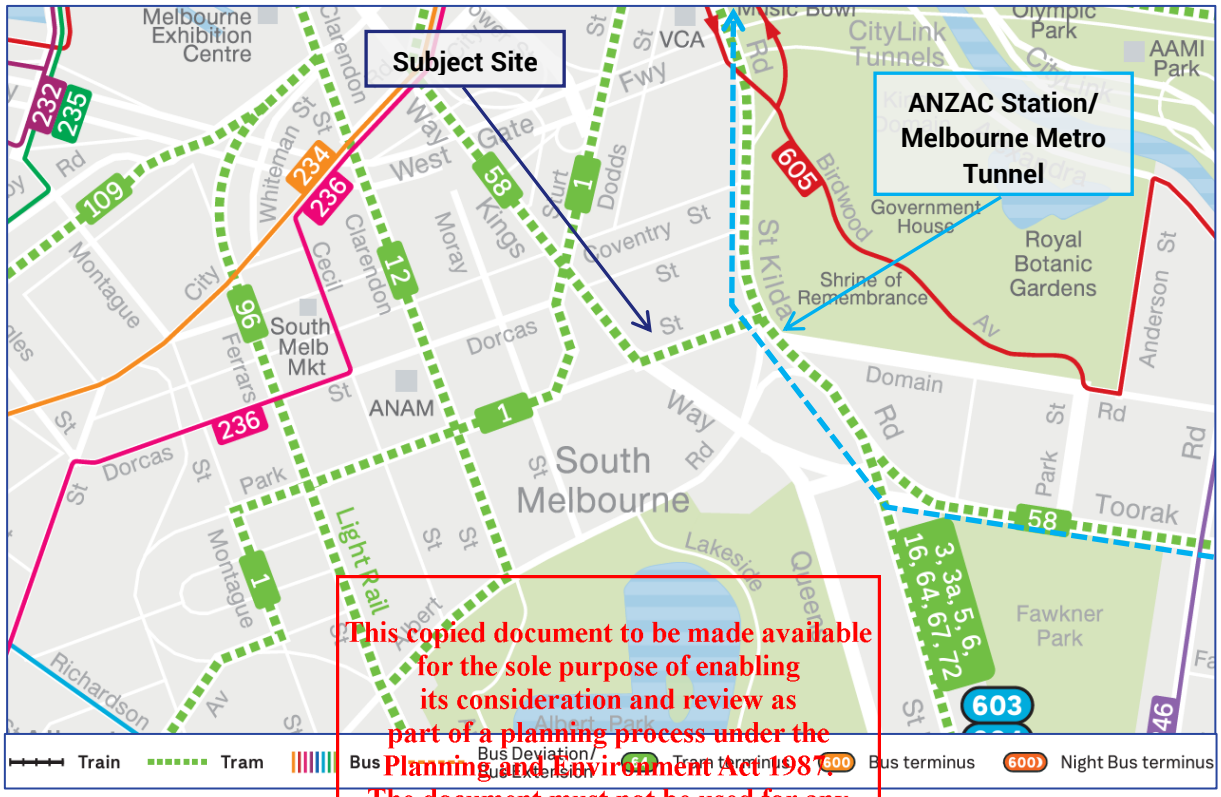


Figure 15: Public Transport Map (Source: PTV)

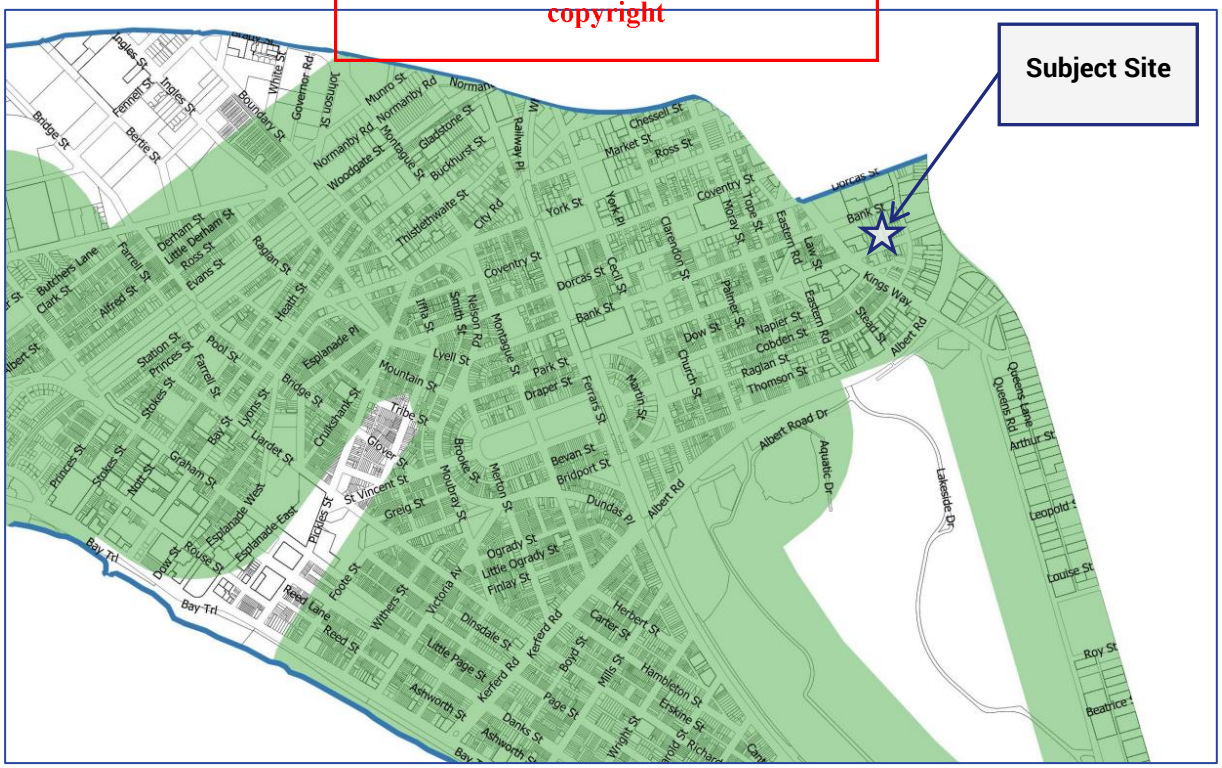


Figure 16: Principal Public Transport Network Area (Source: Vicplan)

Table 4: Summary of Public Transport Services

Service	Between	Via
Tram Route 1	East Coburg & South Melbourne Beach	-
Tram Route 3	Melbourne University & East Malvern	-
Tram Route 5	Melbourne University & Malvern	-
Tram Route 6	Moreland & Glen Iris	-
Tram Route 16	Melbourne University & Kew	St Kilda Beach
Tram Route 64	Melbourne University & East Brighton	-
Tram Route 67	Melbourne University & Carnegie	-
Tram Route 72	Melbourne University & Camberwell	-

Future Public Transport Connections

Anzac Station is expected to open in 2025 and will be located approximately 300m east of the subject site.

Figure 17 presents the general layout for the future station.

Anzac Station will significantly improve access to the St Kilda Road precinct and key Melbourne landmarks, reducing pressure on the road and tram network to the south of the CBD.

This station will form part of the Pakenham/Cranbourne Train Line and provide a station that is one stop from the City Loop.

Figure 17: ANZAC Train Station – Future Public Transport Connections (Source: Victoria Big Build)

3.3.2. Bicycle Infrastructure

The City of Port Phillip is serviced by the Principal Bicycle Network (PBN) with on-road and off-road bicycle paths directly linking the City of Port Phillip with surrounding municipalities and the CBD. The nearby bicycle network is detailed in Figure 20.

The site has access to bicycle infrastructure with on-road bicycle lanes and informal bicycle facilities on many major and minor roads in the immediate vicinity of the subject site including St Kilda Road and Park Street which provides a connection to the Melbourne CBD and other bicycle paths.

Figure 18 below indicates the area that is within a 20-minute cycle of the site.

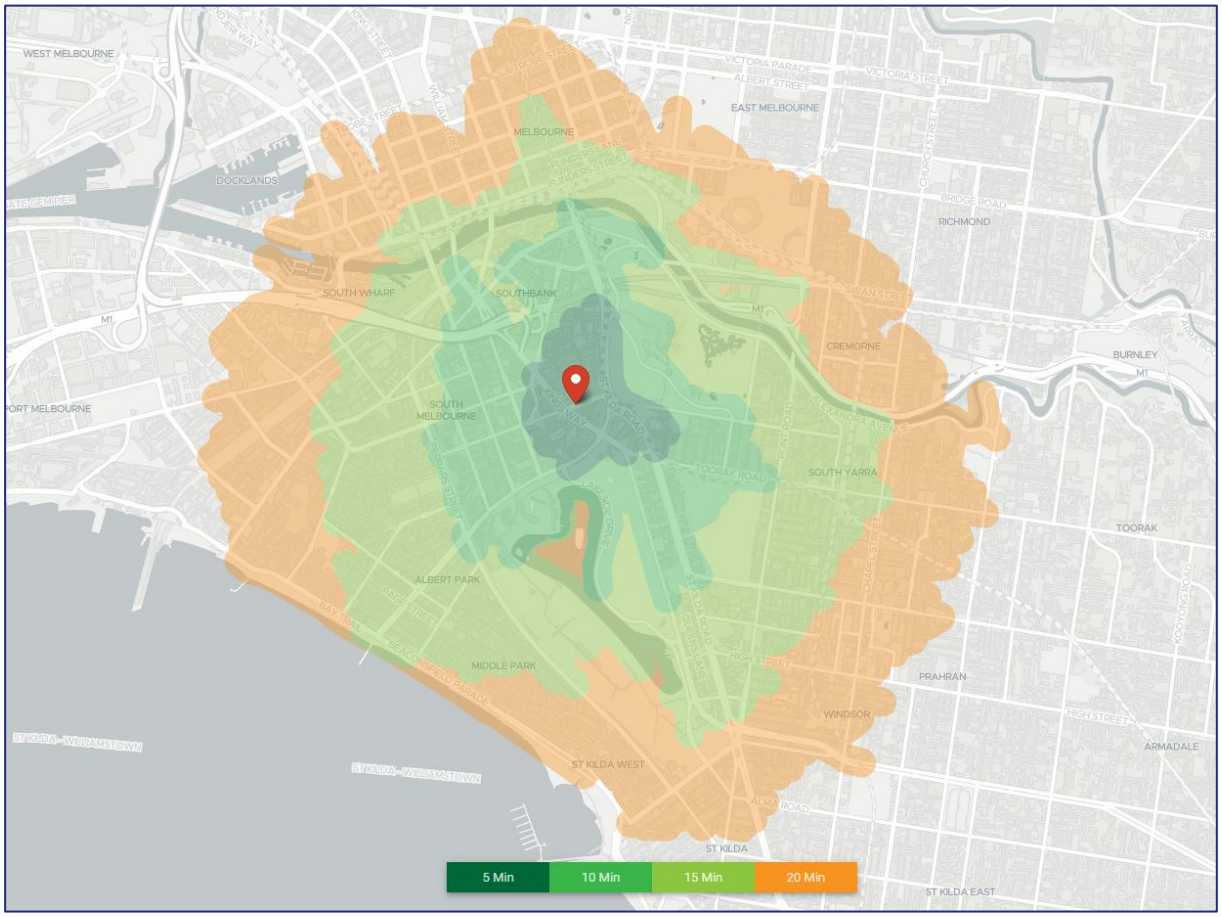


Figure 18: Map of 20-minute cycling distance (Source: Targomo)

3.3.3. Walking

The site is highly walkable, with many everyday services located within walking distance of the site. Figure 19 below indicates the area that is within a 20-minute walk of the site.

The following significant uses are within this 20-minute walk:

- Shrine of Remembrance
- Albert Park
- National Gallery of Victoria
- Arts Centre Precinct
- Clarendon Street Activity Centre

The land uses detailed above demonstrate that there is a high level of everyday land uses in close proximity to the site, which would reduce the dependence on vehicular travel within this area.

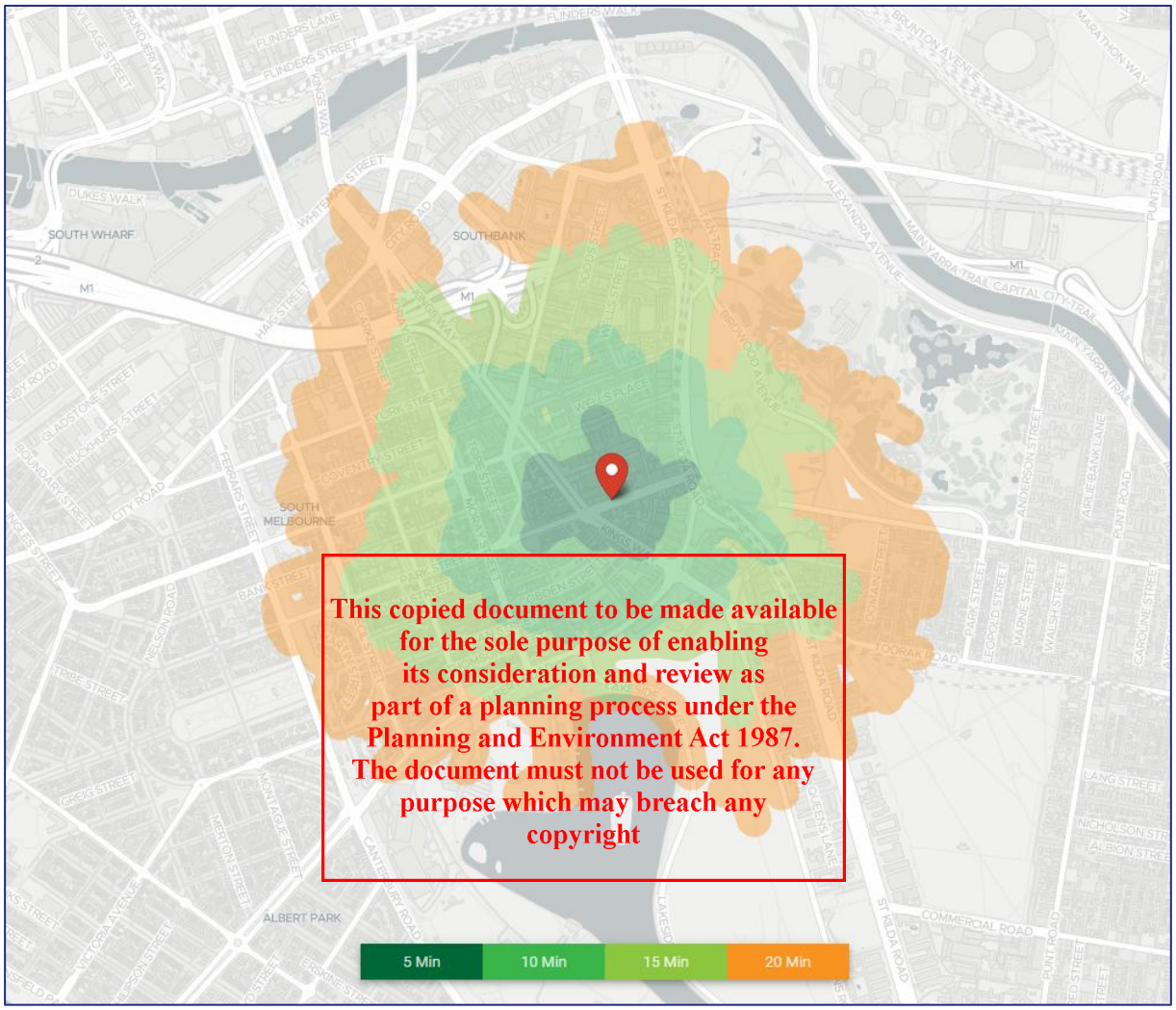


Figure 19: Map of 20-minute walking distance (Source: Targomo)

3.3.4. Car Share Vehicles

Port Phillip City Council supports 'car sharing' schemes by allocating on-street and off-street spaces throughout the municipality for the purposes of accommodating 'car share' cars operated by Flexicar, GoGet, Kinto and Popcar, four Council supported schemes.

The nearest existing car share pod is located on the corner of Park Street and Wells Street. An additional 22 car share pods are located within 500m of the site.

The closest existing car share schemes are identified at Figure 20.

Extensive 'car share' pods are also available in the wider area.

Car sharing schemes provide an alternative to car ownership for residents and staff and actively encourage the use of alternative transport modes. Residents and staff in this development can be actively discouraged from owning cars as they will have easy access

to public transport and are within convenient walking and cycling distance of many activities within the South Melbourne.

If required, a car will be available to these residents and staff by joining a local car share scheme, which will cater for the limited number of times that they may require a car for longer-distance travel and other trips or when they need to transport larger goods.

The existing car share schemes in the immediate area provide a safety net (and fill a mobility gap) for residents by providing convenient access to a car to cater for the limited number of times that they may require a car. This car access is both convenient and cost-effective as they can hire the car on an hourly or daily basis. This relates to not only households without cars, but equally to any single car households in reducing the need for a second car.

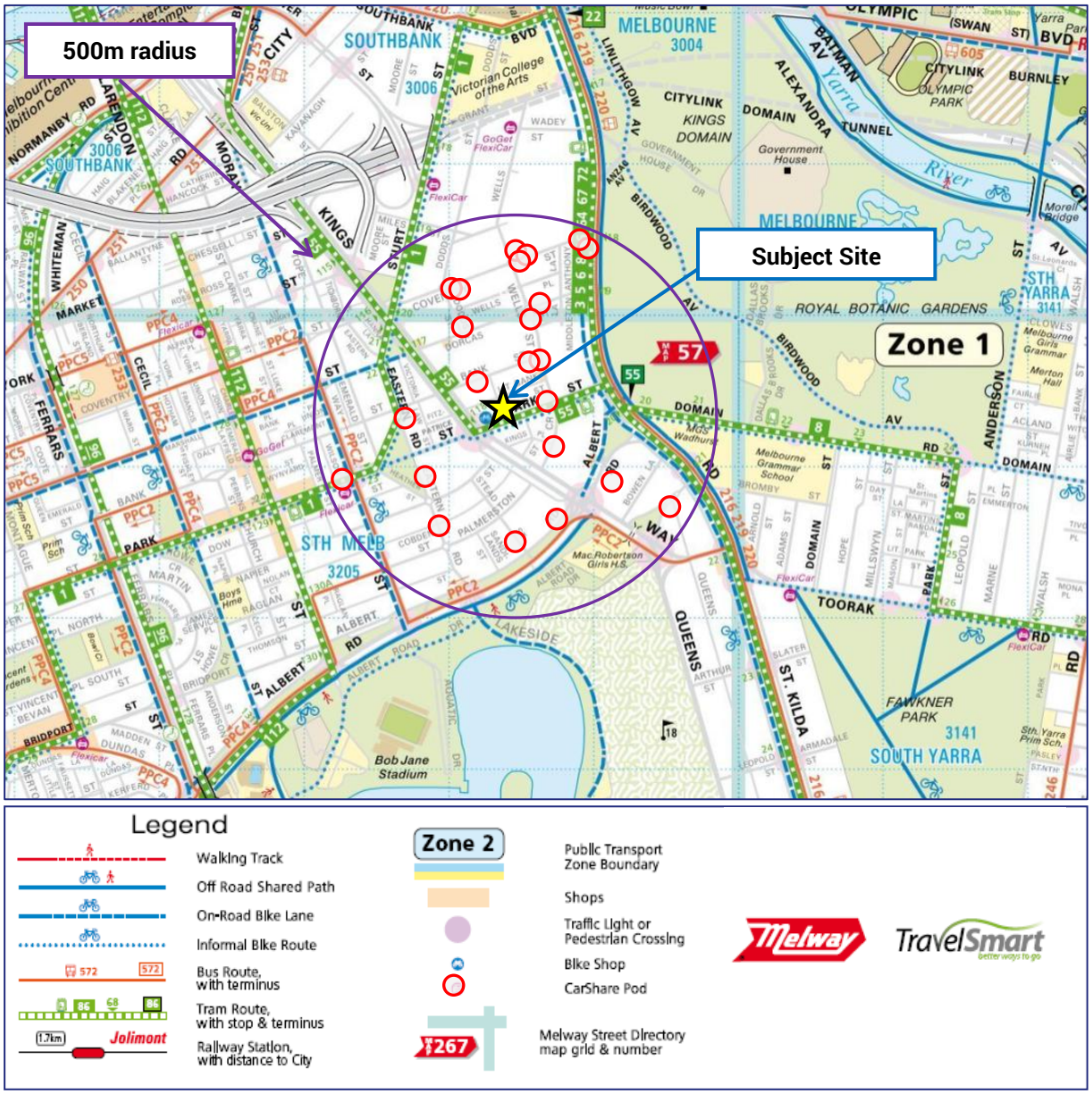
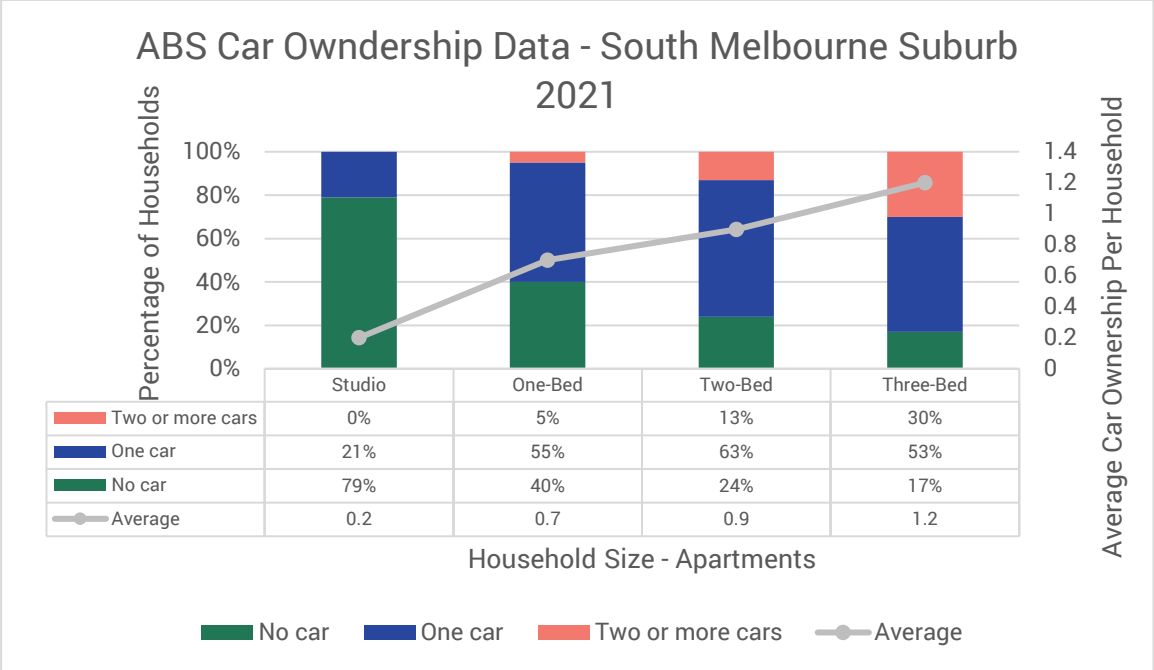


Figure 20: Sustainable Transport Infrastructure (Source: Port Phillip City Council)

3.3.5. Car Ownership Characteristics

A review of car ownership statistics for ' 'flats units and apartments' within the suburb of South Melbourne recorded by the Australian Bureau of Statistics (ABS) in the 2021 Census is presented in the following table.

Table 5: ABS Car Ownerhsip Data (Source: 2021 Census)



4. Traffic Engineering Assessment

4.1. Statutory Car Parking Assessment

The proposed development primarily falls under the land-use categories of 'dwelling' under Clause 73.03 of the Planning Scheme. The ground floor retail tenancy has been assessed as 'shop' or 'food and drink premises' for the purposes of car parking calculations as retail does not have a defined statutory requirement.

The Planning Scheme sets out the parking requirements for new developments under Clause 52.06. 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.*

The statutory parking requirements are set out at Clause 52.06-5 of the Planning Scheme. The site is subject to Category 3 car parking requirements, as shown below.

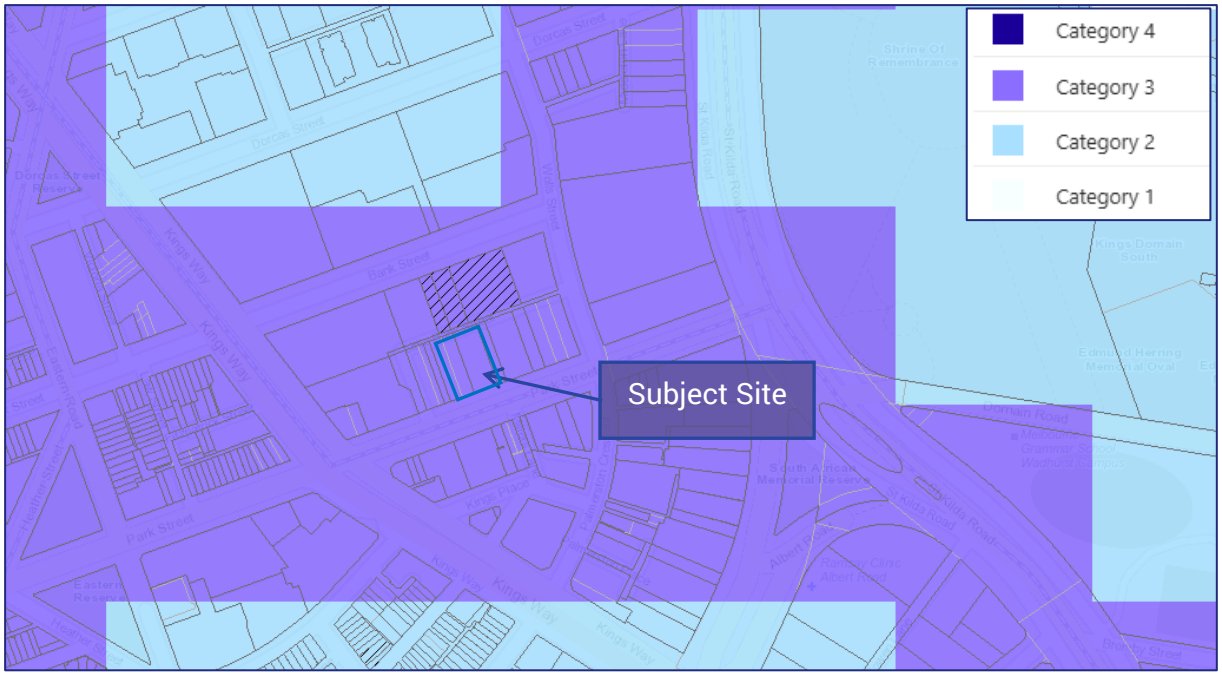


Figure 21: Car Parking Requirements Map (Source: VicPlan)

The statutory car parking assessment of the development is set out in Table 6 below.

Table 6: Statutory Car Parking Assessment – Category 3 of Clause 52.06-5

Use	Size / No.	Statutory Parking Rate (Category 3)	Parking Requirement(1)	Parking Provision	Shortfall / Surplus
Studio dwelling	297	Between 0-2 spaces per dwelling	0-594	86	0
One-bed dwelling					
Two-bed dwelling					
Three-bed dwelling					
Shop/Food & Drink Premises	128m^2	Between 0-2 spaces per 100m^2 NFA	0-2	0	0
TOTAL			**Between 0-596 car spaces**	**86 car spaces**	**0**

Notes:

1. Clause 52.06-5 specifies that where a car parking calculation results in a requirement that is not a whole number, then number of spaces should be rounded down to the nearest whole number.

The provision of 86 car spaces satisfies the statutory requirements under Clause 52.06-7.

Disabled Parking

Clause 52.06-9 states that:

> *The car parking requirement specified in Table 1 includes disabled car parking spaces. The proportion of spaces to be allocated as disabled spaces must be in accordance with Australian Standard AS2890.6-2009 (disabled) and the Building Code of Australia.*

Disabled car parking is not required for residential developments under the Planning Scheme or the National Construction Code (NCC). As no parking is proposed for the commercial tenancy, no DDA parking is required.

4.2. Bicycle Parking Provision

Clause 52.34 of the Planning Scheme specifies bicycle parking requirements for new developments. The purpose of Clause 52.34 is to:

- *To encourage cycling as a mode of transport.*
- *To provide secure, accessible and convenient bicycle parking spaces and associated shower and change facilities.*

The development provides bicycle parking as follows:

- 54 double tier bicycle racks (108 bicycle spaces) within the ground floor bicycle storage room for residents.
- 18 horizontal spaces for visitors of the dwellings within the ground floor bicycle storage room.
- 6 open horizontal spaces at the entrance for visitors.

A copy of the bicycle rack specifications is attached at Appendix C.

The statutory bicycle parking requirement of the development under Clause 52.34 is set out in the table below.

Table 7: Statutory Bicycle Parking Assessment – Clause 52.34

Use	Size/No.	Statutory Bicycle Parking Requirement		No. Bicycle spaces required
		Residents or Employees	Visitors or Customers	
Dwelling	297	1 space to each 5 dwellings	1 space to each 10 dwellings	59 resident 30 visitor
Retail, other than specified	128m^2	1 space to each 300m^2 LFA	1 space to each 500m^2 LFA	0 employee 0 customer
TOTAL				**89 spaces**

Based on the above, provision of 132 bicycle spaces satisfies the bicycle parking provision requirements of Clause 52.34.

Clause 52.34 also requires consideration of end-of-trip facilities and the design of the bicycle parking spaces. The table below reviews the design and provision of these facilities.

Table 8: Design of Bicycle Parking

Requirement	Assessment	Design Response
End of Trip Facilities - Table 2 & 3 of Clause 52.34-5		
If 5 or more employee bicycle spaces are required, 1 one shower for the first 5 employee bicycle spaces, plus 1 to each 10 employee bicycle spaces thereafter.	N/A	Showers and change rooms not required.
1 change room or direct access to a communal change room to each shower. The change room may be a combined shower and change room.	N/A	
Design of Bicycle Parking		
Does the design comply with the design requirements of Clause 52.34-6?	✓	All bicycle spaces are designed in accordance with the bicycle parking specifications contained at Appendix C.
Does the design comply with the requirements of AS2890.3-2015?	✓	

Based on the above, we are satisfied that the provision of bicycle parking accords with the requirements of Clause 52.34.

4.3. Review of Carpark Layout and Vehicle Access Arrangements

Traffix Group has provided design advice to the project architect to achieve a satisfactory carpark layout. The proposed parking layout has been assessed under the following guidelines:

- Clause 52.06-9 of the Planning Scheme (Design Standards for car parking), and
- AS2890.1-2004 – Part 1: Off-Street Car Parking (where relevant).

The carpark will be accessed directly from Park Street (one-way entrance) with all traffic exiting to Little Bank Street. Internally, the carpark ramps provide a single lane for two-way traffic. These ramps will be managed with a stop-go light system.

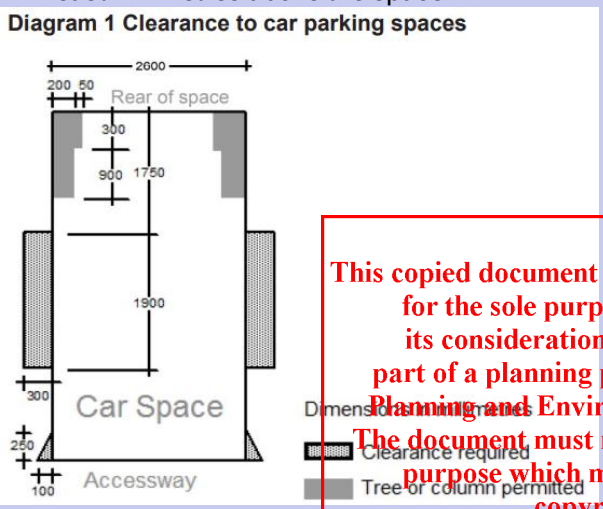
An assessment against the relevant design standards of the Planning Scheme and Australian Standards (where relevant) is provided in the table below.

Table 9: Carpark Layout and Access Assessment

Requirement	Assessment	Design Response
Clause 52.06-9 Design Standard 1 – Accessways		
Must be at least 3m wide	✓	Accessways are greater than 3m in width
Have an internal radius of at least 4m at changes of direction or intersection or be at least 4.2m wide.	✓	B99 design car can navigate all bends. Objective achieved.
Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forwards direction with one manoeuvre.	N/A	Carpark is not public.
Provide at least 2.1m headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8m.	✓	Complies.
If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction.	✓	Complies.
Provide a passing area at the entrance at least 6.1m wide and 7m long if the accessway serves ten or more car parking spaces and is either more than 50m long or connects to a road in a Transport Zone 2 or Transport Zone 3.	✓	Passing area provided within 6.4m aisles.

<table>
<tr><th>Requirement</th><th>Assessment</th><th>Design Response</th></tr>
<tr><td>Have a corner splay or area at least 50% clear of visual obstructions extending at least 2m along the frontage road from the edge of an exit lane and 2.5m along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.</td><td>✓</td><td>The 6.4m exit crossover is to a one-way right-of-way that provides adequate views on exit.</td></tr>
<tr><td>If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or Transport Zone 3, the access to the car spaces must be at least 6m from the road carriageway.</td><td>N/A</td><td>Access is not from a TRZ2 or TRZ3.</td></tr>
<tr><td>If entry to the car space is from a road, the width of the accessway may include the road.</td><td>N/A</td><td>Not applicable</td></tr>
<tr><td colspan="3">Clause 52.06-9 Design Standard 2 – Car Parking Spaces</td></tr>
<tr><td>Car parking spaces and accessways must have the minimum dimensions as outlined in Table 2 under Clause 52.06-9.
<table>
<tr><th>Angle of car spaces to accessway</th><th>Accessway width</th><th>Car park width</th><th>Car park length</th></tr>
<tr><td>Parallel</td><td>3.6 m</td><td>2.3 m</td><td>6.7 m</td></tr>
<tr><td>45°</td><td>3.5 m</td><td>2.6 m</td><td>4.9 m</td></tr>
<tr><td>60°</td><td>4.9 m</td><td>2.6 m</td><td>4.9 m</td></tr>
<tr><td>90°</td><td>6.4 m</td><td>2.6 m</td><td>4.9 m</td></tr>
<tr><td></td><td>5.8 m</td><td>2.8 m</td><td>4.9 m</td></tr>
<tr><td></td><td>5.2 m</td><td>3.0 m</td><td>4.9 m</td></tr>
<tr><td></td><td>4.8 m</td><td>3.2 m</td><td>4.9 m</td></tr>
</table>
Note to Table 2: Some dimensions in Table 2 vary from those shown in the Australian Standard AS2890.1-2004 (off street). The dimensions shown in Table 2 allocate more space to aisle widths and less to marked spaces to provide improved operation and access. The dimensions in Table 2 are to be used in preference to the Australian Standard AS2890.1-2004 (off street) except for disabled spaces which must achieve Australian Standard AS2890.6-2009 (disabled).</td><td>✓</td><td>All car spaces are 2.6m wide x 4.9m with a 6.4m wide access aisle.

Access to and from the critical car spaces within the basement carpark have been checked for access by the B85 design car (specified at Appendix B of AS2890.1-2004).</td></tr>
</table>

Requirement	Assessment	Design Response
A wall, fence, column, tree, tree guard or any other structure that abuts a car space must not encroach into the area marked 'clearance required' on Diagram 1, other than: • A column, tree or tree guard, which may project into a space if it is within the area marked 'tree or column permitted' on Diagram 1. • A structure, which may project into the space if it is at least 2.1 metres above the space. **Diagram 1 Clearance to car parking spaces**  	✓	Complies.
Car spaces in garages/carports must be at least 6m long and 3.5m wide for a single space and 5.5m wide for a double space measured inside the garage/carport.	N/A	No garages proposed.
Where parking spaces are provided in tandem, an additional 0.5m in length must be provided between each space.	✓	Complies.
Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover.	✓	All spaces are under cover.
Disabled car parking spaces must be designed in accordance with AS2890.6-2009 and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 by 0.5m. A minimum headroom of 2.5m is to be provided above the disabled car space in accordance with AS2890.6-2009.	N/A	No disabled spaces, and none required as all parking is allocated to residents.

<table>
<tr><th>Requirement</th><th>Assessment</th><th>Design Response</th></tr>
<tr><td colspan="3">Clause 52.06-9 Design Standard 3 - Gradients</td></tr>
<tr><td>Accessway grades must not be steeper than 1:10 (10 per cent) within 5 metres of the frontage to ensure safety for pedestrians and vehicles. The design must have regard to the wheelbase of the vehicle being designed for; pedestrian and vehicular traffic volumes; the nature of the car park; and the slope and configuration of the vehicle crossover at the site frontage.
This does not apply to accessways serving three dwellings or less.</td><td>✓</td><td>Grades upon entry to the site are minimal.

Grades upon exiting to Little Bank Street are not strictly limited to 1:10 5m from the site boundary, however they comply with the remainder of Design Standard 3. Little Bank Street operates one-way and provides for rear property access with little pedestrian activity and no formal footpath.

We are satisfied that sightlines for exiting vehicles to oncoming vehicles/pedestrians are adequate and that the objective is achieved.</td></tr>
<tr><td>Ramps (except within 5 metres of the frontage) must have the maximum grades as outlined in Table 3 and be designed for vehicles travelling in a forward direction.
<table>
<tr><th>Type of car park</th><th>Length of ramp</th><th>Maximum grade</th></tr>
<tr><td>Public car parks</td><td>20 metres or less</td><td>1:5 (20%)</td></tr>
<tr><td></td><td>longer than 20 metres</td><td>1:6 (16.7%)</td></tr>
<tr><td>Private or residential car parks</td><td>20 metres or less</td><td>1:4 (25%)</td></tr>
<tr><td></td><td>longer than 20 metres</td><td>1:5 (20%)</td></tr>
</table></td><td>✓</td><td>Complies.</td></tr>
<tr><td>Where the difference in grade between two sections of ramp or floor is greater that 1:8 (12.5 per cent) for a summit grade change, or greater than 1:6.7 (15 per cent) for a sag grade change, the ramp must include a transition section of at least 2 metres to prevent vehicles scraping or bottoming.</td><td>✓</td><td>Complies.</td></tr>
</table>

Requirement	Assessment	Design Response
Plans must include an assessment of grade changes of greater than 1:5.6 (18 per cent) or less than 3 metres apart for clearances, to the satisfaction of the responsible authority	✓	Complies.
Clause 52.06-9 Design Standard 4 – Mechanical Parking		
At least 25 per cent of the mechanical car parking spaces can accommodate a vehicle height of at least 1.8 metres.	N/A	No mechanical parking
Car parking spaces that require the operation of the system are not allocated to visitors unless used in a valet parking situation.	N/A	
The design and operation is to the satisfaction of the responsible authority.	N/A	
Clause 52.06-9 Design Standard 5 – Urban Design		
Ground level car parking, garage doors and accessways must not visually dominate public space.	N/A	These matters are more related to urban design, rather than specifically traffic engineering.
Car parking within buildings (including visible portions of partly submerged basements) must be screened or obscured where possible, including through the use of occupied tenancies, landscaping, architectural treatments and artworks.		
Design of car parks must take into account their use as entry points to the site.		
Design of new internal streets in developments must maximise on street parking opportunities.	N/A	No internal streets proposed.
Clause 52.06-9 Design Standard 6 – Safety		
Car parking must be well lit and clearly signed.	N/A	Car parking is all private for use by residents, and we are satisfied that signage is not strictly required. The internal carparks will be lit, as appropriate.

Requirement	Assessment	Design Response
The design of car parks must maximise natural surveillance and pedestrian visibility from adjacent buildings.	✓	The on-site car parking areas are secure.
Pedestrian access to car parking areas from the street must be convenient.	✓	Pedestrians can travel between the parking areas and street via the central lift core.
Pedestrian routes through car parking areas and building entries and other destination points must be clearly marked and separated from traffic in high activity parking areas.	✓	We are satisfied that separated pedestrian lanes are not required for the level of traffic on each floor.
Clause 52.06-9 Design Standard 7 - Landscaping		
The layout of car parking areas must provide for water sensitive urban design treatment and landscaping.	N/A	These requirements are not strictly related to traffic engineering matters.
Landscaping and trees must be planted to provide shade and shelter, soften the appearance of ground level car parking and aid in the clear identification of pedestrian paths.		
Ground level car parking spaces must include trees planted with flush grilles. Spacing of trees must be determined having regard to the expected size of the selected species at maturity.		

4.4. Loading and Waste Collection Arrangements

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.*

Clause 18.02-4L-02 of the Port Phillip Planning Scheme also includes the following strategies:

- *Support development that enables loading and unloading:*
  - *To occur wholly within the site boundaries and obscured from view from the primary streetscape.*
  - *To be accessible from the rear of a building and/or near an area of low pedestrian activity and separate from parking areas.*
  - *To accommodate building occupants moving in and out of the building as well as tradespeople working onsite.*
- *Avoid loading facilities and waste management that require vehicles to reverse off-site.*
- *Support loading facilities that are screened from view of the street when not in use.*

4.4.1. Loading

A loading bay is proposed at ground level, accessed via the western site boundary to Little Bank Street. It is capable of accommodating the Small Rigid Vehicle (SRV) from AS2890.2-2018. The loading bay is 3.9m wide x 8.8m long. Swept path diagrams demonstrating access to the loading bay are attached at Appendix D.

Loading requirements for retail premises will be low and readily accommodated in the loading bay.

Loading activities for the residential component associated with furniture movers/removalists when residents move in/out are anticipated to occur on the odd occasion. These activities can also occur with the loading bay.

Accordingly, we are satisfied that the day-to-day loading requirements of the development are accommodated on-site.

The proposal also satisfies Clause 18.02-4L-02 as it provides for internal loading, enclosed by a door, accessed by the site/rear of the site separate for car parking areas. Trucks are able to reverse into this loading bay and leave the site in a forward's direction.

4.4.2. Waste Collection

A Waste Management Plan has been prepared by Traffix Group. This plan details waste collection on-site by a private contractor using the mini waste truck, 1.7m wide x 6.4m long with a 2.1m headroom clearance (2.4m when loading 1,100 litre bins).

Accordingly, we satisfied that the waste collection arrangements of the development are acceptable.

4.5. Traffic Impact Assessment

4.5.1. Traffic Generation

We have adopted the following traffic generation rates:

- Each car space will generate an average of 2 vehicle trips per day.
- 10% of the daily traffic generation occurs during the road network peak hours.
- These rates are conservative and consider the site's location nearby to sustainable transport opportunities within the vicinity of the site. These rates are above the traffic generation rates for high density residential developments provided within the Guide to Traffic Generating Developments – Updated traffic surveys (August 2013) prepared by the Roads & Maritime Services (RMS)[1].

The table below summarises the traffic generation of the proposal.

Table 10: Expected Traffic Generation

Use	Size/No. (Car spaces)	Daily Traffic Generation Rate	Daily	Peak Traffic Generation Rate	Peak hour
Podium Carpark	36	2/car space	72	0.2/car space	8
Ground level carpark	9	2/car space	18	0.2/car space	2
Basement Carpark	41	2/car space	82	0.2/car space	9
Total	**86**		**172**		**19**

Applying the above rates to the development equates to 172 vehicle trips per day and 19 vehicle trips per peak hour for the dwellings during the AM and PM peak hours.

4.5.2. Distribution

The following arrival and departure patterns have been adopted for the peak periods:

- AM peak traffic split of 20% arrivals and 80% departures, and

[1]. These surveys break down the trip generation on a per dwelling, per bedroom, and per car space basis for daily trips and the AM and PM peak hours. The generation rates per dwelling were 0.19 trips (AM), 0.15 trips (PM) and 1.52 trips (daily). The trips per car space were 0.15 trips (AM), 0.12 trips (PM) and 1.34 trips (daily).

- PM peak traffic split of 60% arrivals and 40% departures.

Figure 22 outlines the expected future traffic volumes for each movement to and from the site, based on the distribution of traffic. The distribution is based on the existing directional bias and legal turning movements shown in Section 3.2.2.

We have distributed the development traffic considering that:

- users will enter the site from the existing Park Street crossover, and,
- users will exit the site from Little Bank Street to the site's northern boundary, and then travel west.
- none of the development traffic will use the private accessways associated with Officeworks. In practice, some drivers on exit may continue west to Kings Way via the private accessway as it is not clear that this accessway is private. Given its one-way operation, this would not cause traffic conflicts.

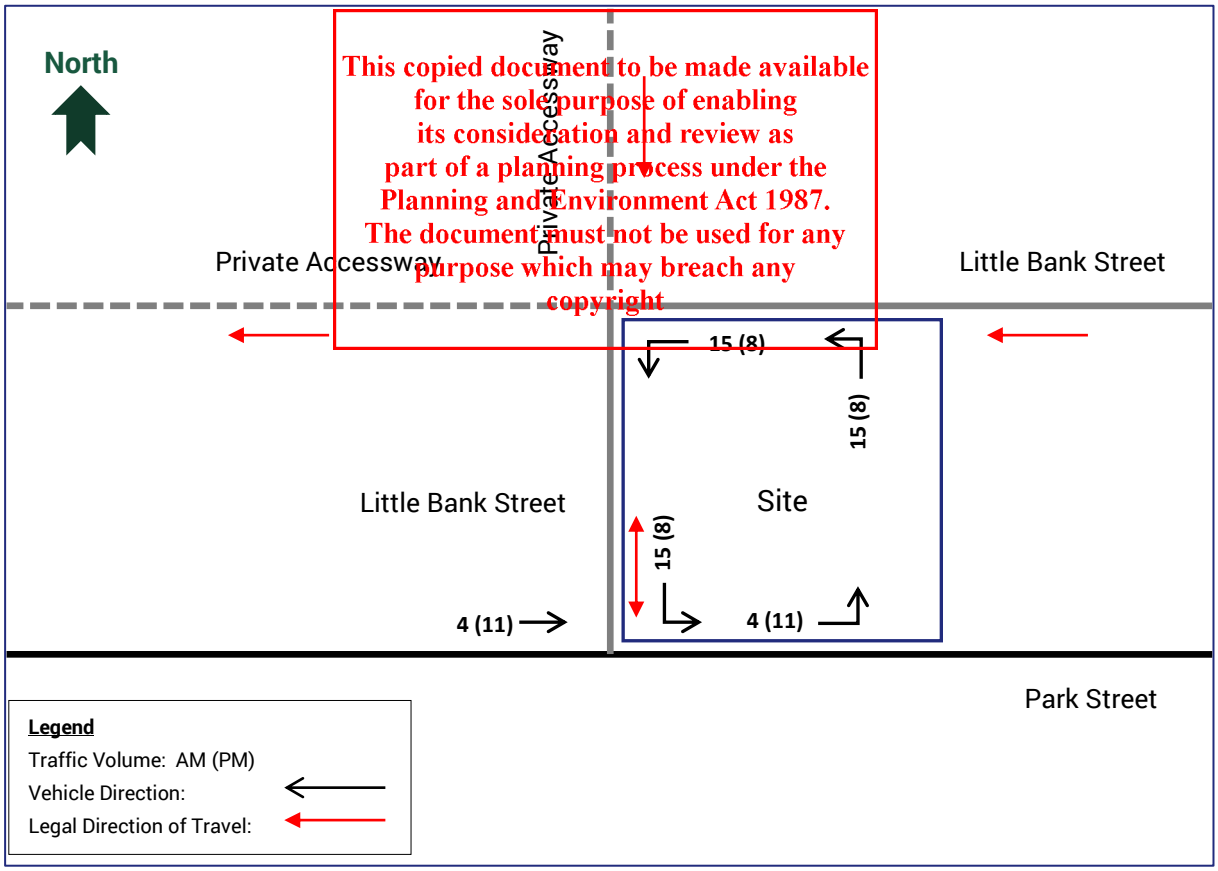


Figure 22: Development traffic generation

The predicted traffic volumes have been superimposed onto the existing traffic volumes in order to depict the post-development traffic volumes. This is provided at Figure 23.

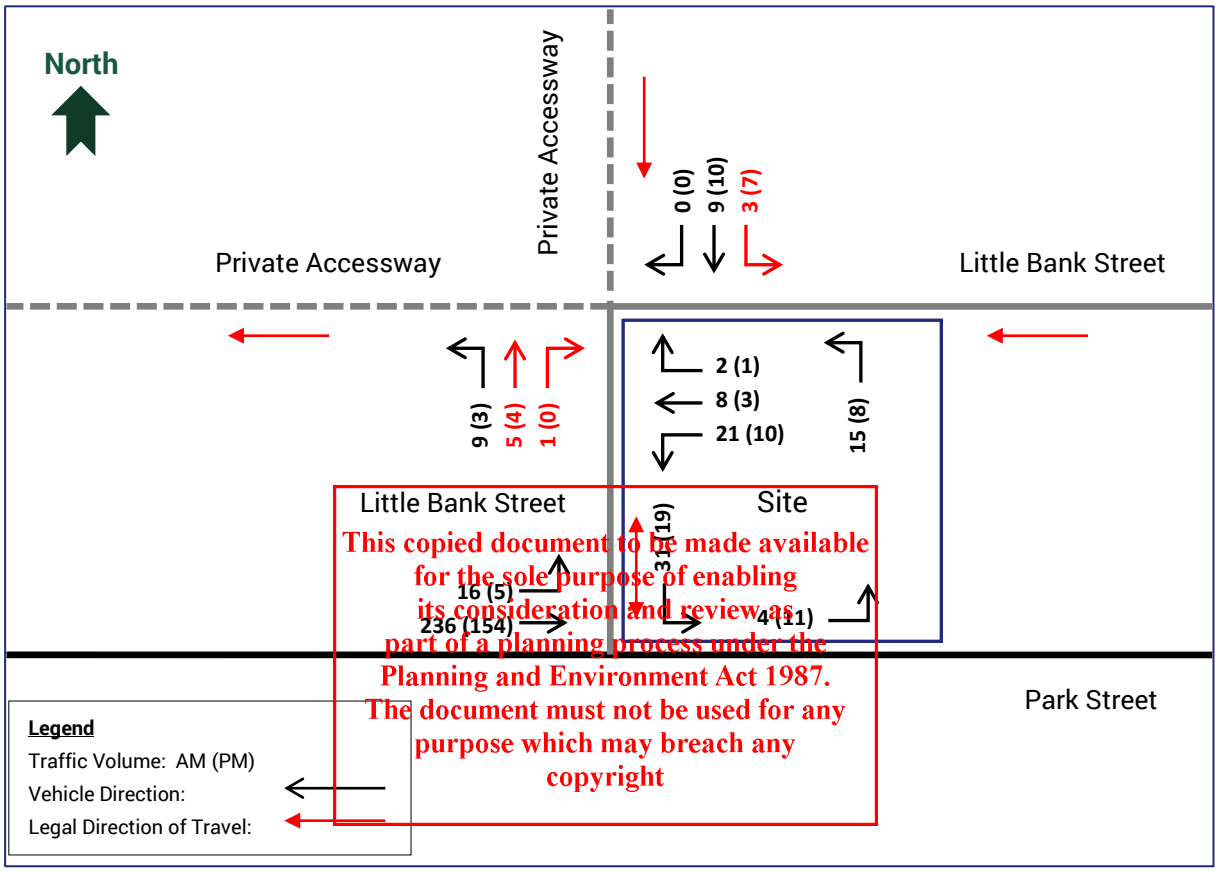


Figure 23: Post Development Traffic Volumes

4.5.3. Traffic Impacts in Little Bank Street

Northern Boundary

Little Bank Street operates one-way, running east-west along the site's northern boundary.

As seen in Figure 23, 15 and 8 additional vehicle movements are expected in the AM and PM peak hour as a result of the proposed development along Little Bank Street. Little Bank Street would carry 14-31 vehicles per hour post-development. There is no traffic capacity concern with this arrangement as Little Bank Street operates one-way.

Western Boundary

Little Bank Street operates two-way, running north south along the site's western boundary. The smallest portion of this ROW measures 7m, which permits two-way traffic flow.

As discussed, 15 and 8 additional vehicle movements are expected in the AM and PM peak hour as a result of traffic exiting the site. The total post-development traffic in Little Bank Street would increase to 24-47 vehicle movements per hour.

At the intersection with Park Street, all vehicles are required to turn left out of Little Bank Street.

We are satisfied that Little Bank Street and its intersection with Park Street can accommodate the additional traffic generated by the proposal, which equates to 1 additional movement approximately every 4 minutes in the AM peak hour and 7.5 minutes in the PM peak hour.

4.5.4. Use of a Single Traffic Lane for Two-Way Traffic within Internal Carpark

A single-width two-way ramp is proposed between the basement, ground floor and podium parking level.

Clause 3.2.2 of AS2890.1-2004 provides guidelines for the provision of passing areas along low volume driveways and connecting roadways, which provides some guidance on determining the need for a vehicle passing area. This Clause states:

> *As a guide, 30 or more movements in a peak hour (in and out combined) would usually require provision for two vehicles to pass on the driveway, i.e. a minimum width of 5.5 metres. On long driveways, passing opportunities should be provided at least every 30 metres.*
>
> *Reversing movements to public roads shall be prohibited wherever possible.*
>
> *When two-way traffic volumes exceed 30 vehicles per hour, passing areas should be provided to accommodate simultaneous two-way traffic flow.*

As outlined above, a total of 19 vehicle movements are expected in the peak hour. These movements are split between the basement and podium levels:

- 9 movements would access the basement per peak hour
- 8 would access the upper levels
- 2 would remain on ground floor and not use the ramps

They are also split between in and out movements.

This level of traffic can readily be accommodated within a single lane accessway. The volume of traffic within the site access is well under the 30 vehicles per hour threshold of Clause 3.2.2 of AS2890.1-2004 and the chance of having to wait for the ramp to clear is low. Vehicle conflicts can be effectively managed between users given:

- the chance of conflict is low, given the modest traffic volumes involved,
- the ramps are short in length, any time spent using the ramp will be short,
- a traffic light system is proposed, backed by convex mirrors, which can be enforced through a condition of any permit granted,
- the remainder of the carpark levels includes regular 6.4m wide aisles that provide for convenient passing, and,

- the basement is only utilised by residents who will be regular users.

On this basis, we are satisfied that a single width access ramps is appropriate, subject to instalment of a traffic signalling system and appropriate convex mirrors.

5. Conclusions

Having undertaken a detailed traffic engineering assessment of the proposed mixed use development at 60-70 Park Street, South Melbourne, we are of the opinion that:

a) the proposed development has a statutory car parking requirement between 0-596 car spaces under Clause 52.06-5,

b) the provision and allocation of 86 car spaces satisfy the requirements of Clause 52.06 and a car parking reduction is not required,

c) the proposed parking layout and vehicle access arrangements accord with the requirements of the Planning Scheme, Australian Standards (where relevant) and current practice,

d) bicycle parking is provided in accordance with the Clause 52.34 of the Planning Scheme and accords with the design requirements of AS2890.3-2015,

e) the level of traffic generated by the proposal can be accommodated without any adverse impacts to the operation of the local road network,

f) a loading bay is provided at ground level, accessed via the western site boundary to Little Bank Street, and

g) waste collection can be undertaken via a private contractor within the on-site loading bay.

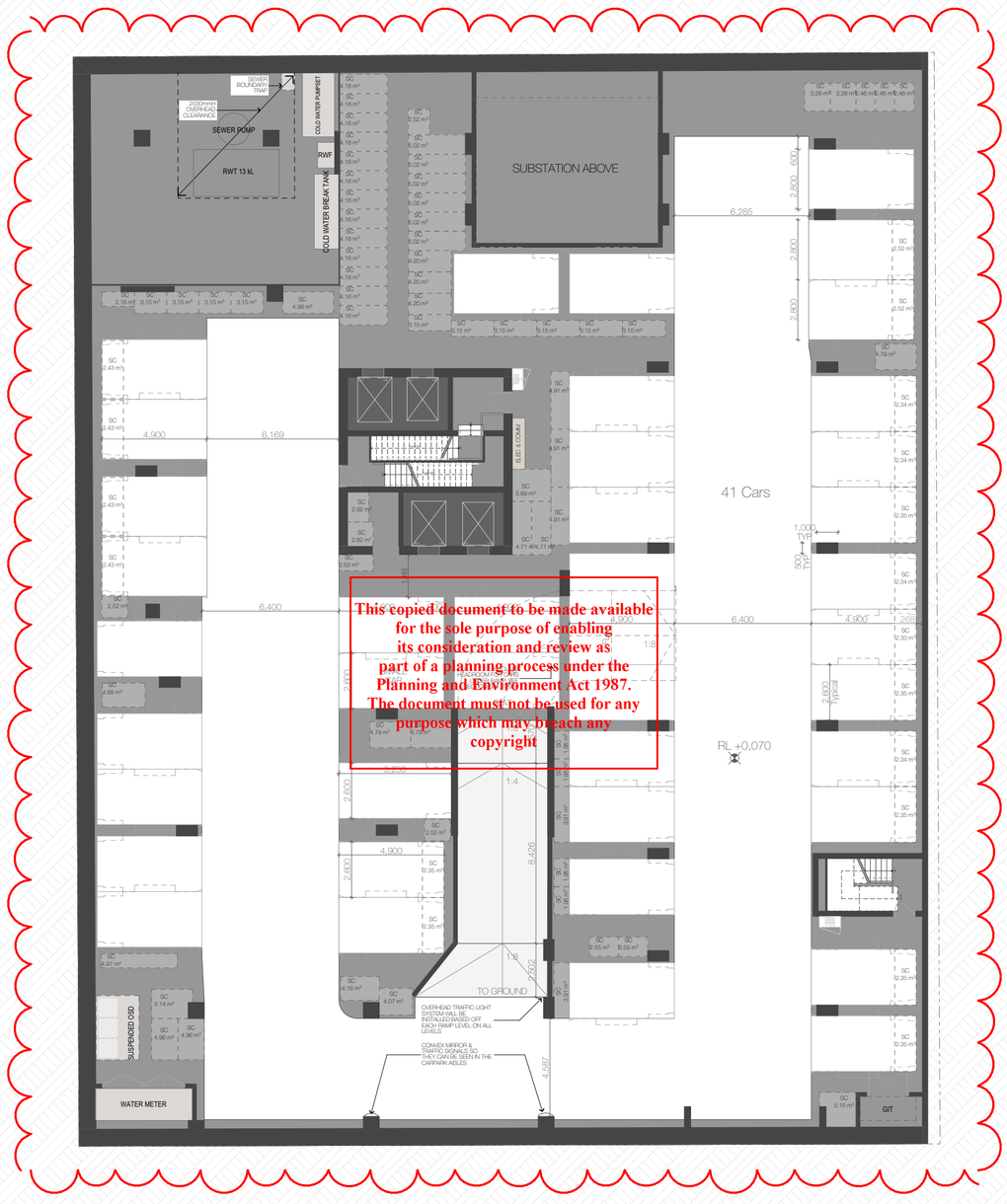
There are no traffic engineering reasons why a planning permit for the proposed mixed use development at 60-70 Park Street, South Melbourne should be refused, subject to appropriate conditions.

Appendix A

Development Plans

Park Street

Basement Plan



Rev	Date	By	Chk	Description
A	19/12/2024	MV, CE, LS	DG	Issue for DFP Stage 01
B	27/06/2025	MV, CS	DG	Issue for DFP Stage 01
C	26/08/2025	MV, CS	MV	Issue for DFP Stage 02
D	11/02/2026	MV, CS	MV	Issue for DFP Stage 02

- All works to be in accordance with authority & statutory approvals.
- Refer to site survey for all information relating to existing site conditions.
- All Boundary information to be confirmed by registered surveyor before commencing works on site.
- Refer to Arborist Report and Landscape Documentation for all information relating to trees and their retention/removal, and all landscape works.
- Drawings to be read in conjunction with all Specifications and Schedules; all specialist consultant documentation; BASIX, NatHERS, Section J Certificates.
- Minor changes to building form & configuration may be required after Development Consent.
- Do not scale from drawing; figured dimensions only to be used.
- Building Contractor to verify all dimensions before commencing work.

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Project Name	Park Street
Project Number	00013600
Project Address	60-70 Park Street South Melbourne VIC 3205
Country	Australia

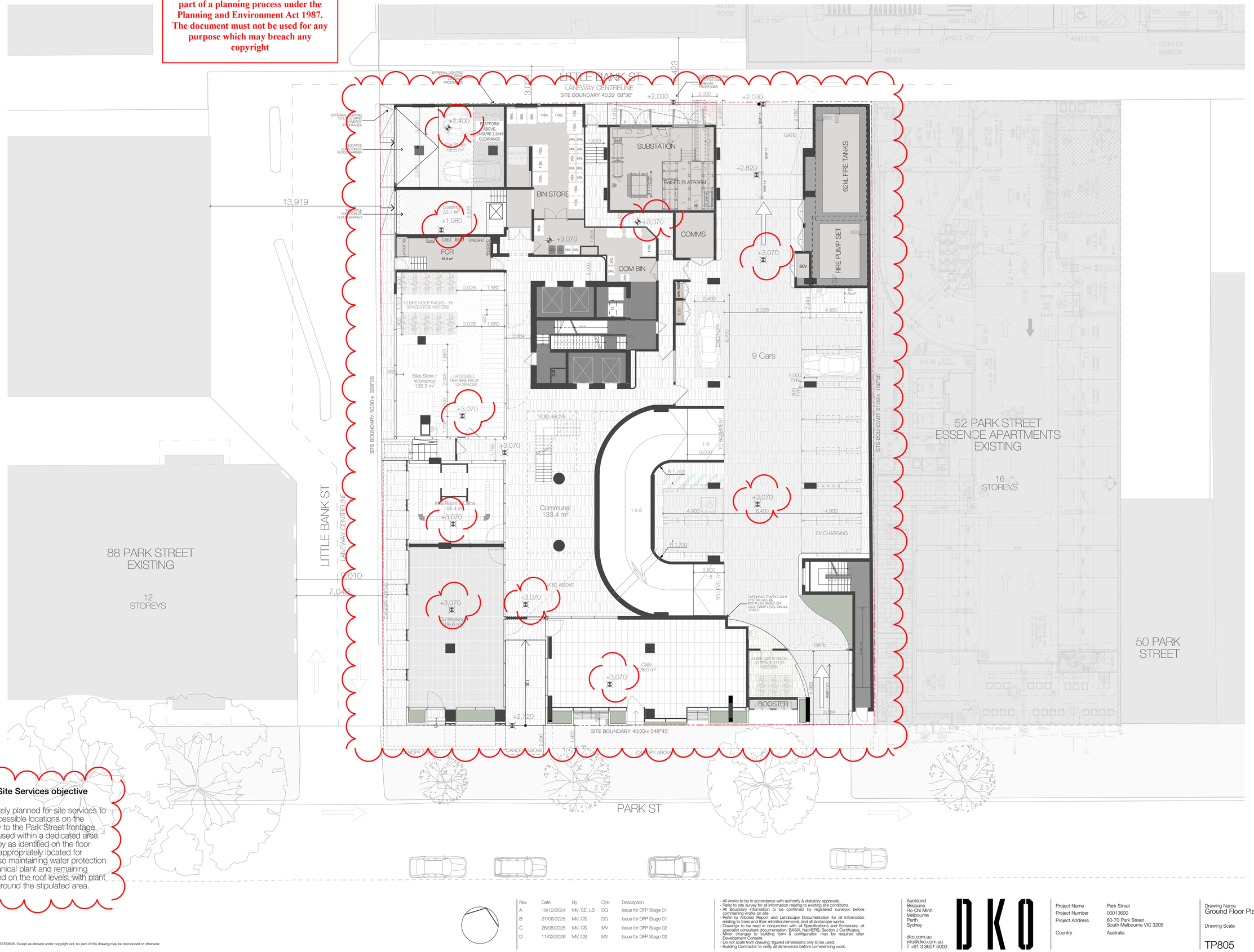
Drawing Name
Basement Plan

Drawing Scale 1:200 @ A2

TP804 D

Park Street

Ground Floor Plan



Clause 58.06-2 - Site Services objective

The site has adequately planned for site services to be housed within accessible locations on the ground floor, primarily to the Park Street frontage. Mailboxes will be housed within a dedicated area to the residential lobby as identified on the floor plans. These will be appropriately located for resident use while also maintaining water protection and durability. Mechanical plant and remaining services are contained on the roof levels, with plant screening provided around the stipulated area.

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Project Name	Park Street
Project Number	00013600
Project Address	60-70 Park Street South Melbourne VIC 3205
Country	Australia

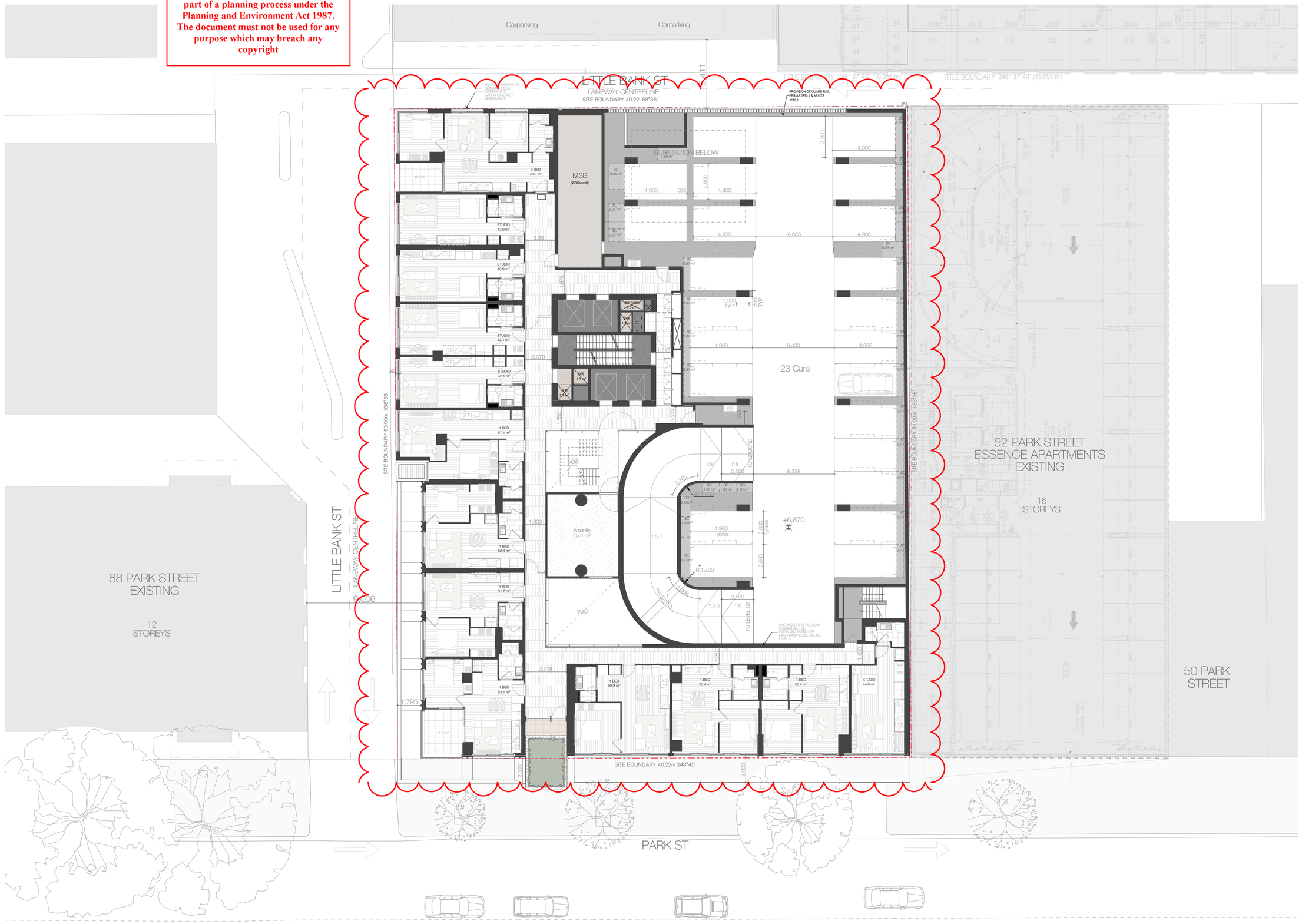
Drawing Name
Ground Floor Plan

Drawing Scale 1:200 @ A2

TP805 D

Park Street

Level 1 Plan



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Project Name	Park Street
Project Number	00013600
Project Address	60-70 Park Street South Melbourne VIC 3205
Country	Australia

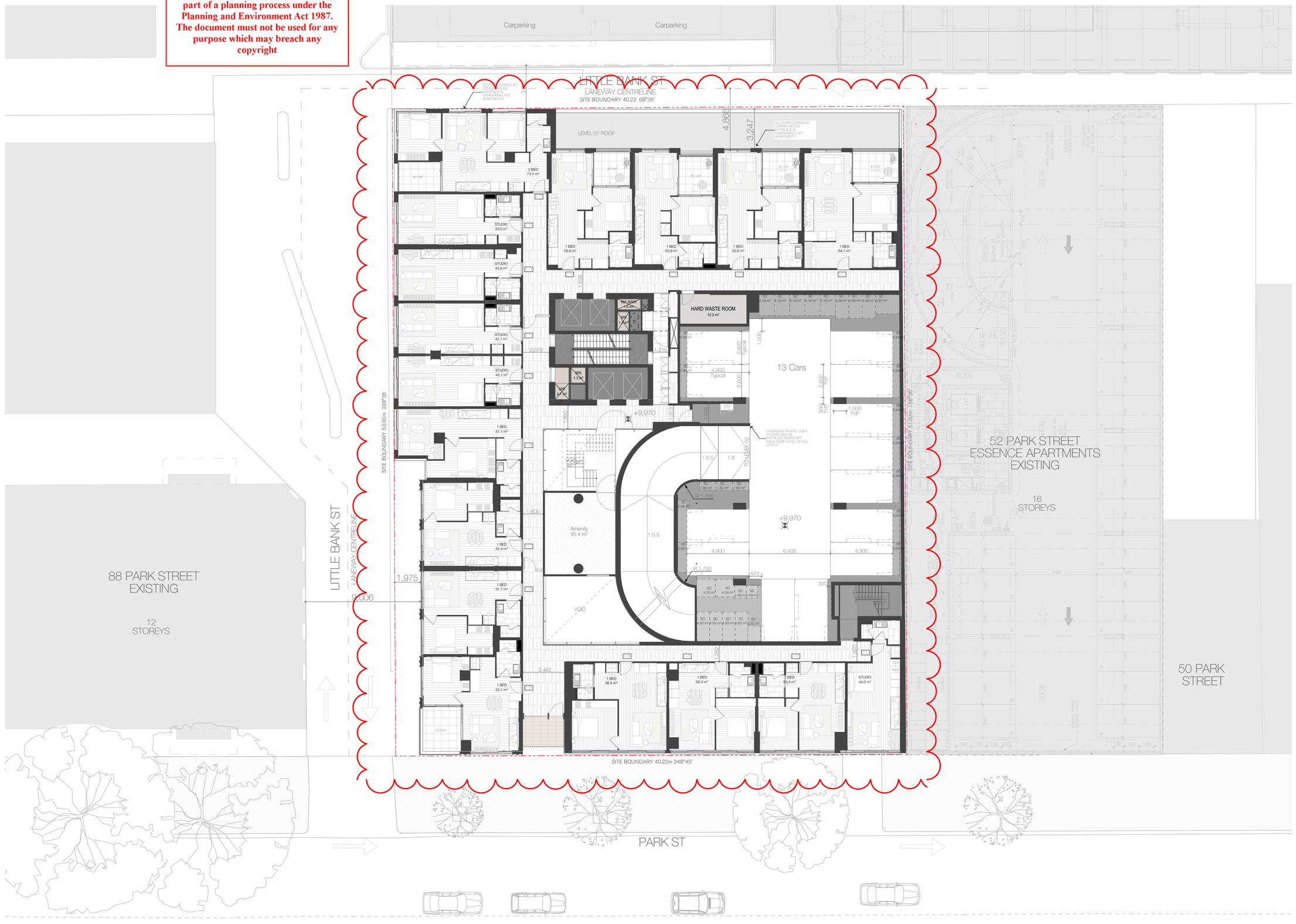
Drawing Name
Level 1 Plan

Drawing Scale 1:200 @ A2

TP806 D

Park Street

Level 2 Plan



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Project Name	Park Street
Project Number	00013600
Project Address	60-70 Park Street South Melbourne VIC 3205
Country	Australia

Drawing Name
Level 2 Plan

Drawing Scale 1:200 @ A2

TP807 D

Appendix B

Parking Inventory

60-70 Park Street,
South Melbourne
Parking Surveys

Traffix Group

Surveyed By: Nicholas McCaffrey

Survey Dates & Times: See below

Location		Restriction	Capacity Min - Max	Fri 22nd March 2024 12pm
ON-STREET CARPARKING				
Map Ref.	**Bank Street**			
	North Side			
A	Kings Way to Wells Street	No Stopping	-	0
		P ticket, 8am-6pm Monday to Friday	12	12
		No Stopping	-	0
		No Stopping	-	0
		P ticket, 8am-6pm Monday to Friday	31	30
		No Stopping	-	0
		P ticket, 8am-6pm Monday to Friday	29	29
		No Stopping	-	0
	South Side			
B	Wells Street to ROW (EB Officeworks)	No Stopping	-	0
		Permit Zone Flexicar Authorised Carshare only	1	1
		2P ticket, 8am-6pm Monday to Friday	20	11
		No Stopping	-	0
		2P Disabled Only, 8am-6pm Monday to Friday	2	1
		2P ticket, 8am-6pm Monday to Friday	9	4
		15 Minute Loading Zone 8am-6pm Mon-Sat	1	1
		No Stopping	-	0

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

Surveyed By: Nicholas McCaffrey

Survey Dates & Times: See below

Location		Restriction	Capacity Min - Max	Fri 22nd March 2024 12pm
C	ROW (EB Officeworks) to Kings Way	No Stopping	-	0
		4P ticket, 8am-6pm Monday to Friday	14	9
		Permit Zone GoGet Authorised Carshare only	1	1
		No Stopping	-	0
		4P ticket, 8am-6pm Monday to Friday	10	3
		No Stopping	-	0
Bank Street		**Capacity**		**127**
		Total Number of Cars Parked		**99**
		Total Number of Vacant Spaces		**28**
		Percentage Occupancy		**78%**

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

Traffix Group

Surveyed By: Nicholas McCaffrey **Survey Dates & Times:** See below

Location		Restriction	Capacity Min - Max	Fri 22nd March 2024 12pm
Map Ref.	**Wells Street**			
	West Side			
D	Park Street to Bank Street	No Stopping	-	0
		Permit Zone GoGet Authorised Car Share Vehicles Only	1	1
		1P ticket, 8am-6pm Monday to Friday	4	4
		No Stopping	-	0
		1P ticket, 8am-6pm Monday to Friday	6	3
		No Stopping	-	0
	East Side			
E	Opposite Bank Street to Park Street	No Stopping	-	0
		1P Ticket 8am-6pm Mon-Fri	8	7
		Loading Zone 15 Minute 9am-5pm Mon-Fri	1	1
		No Stopping	-	0
Wells Street		**Capacity**		**18**
		Total Number of Cars Parked		**14**
		Total Number of Vacant Spaces		**4**
		Percentage Occupancy		**78%**

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

Traffix Group

Surveyed By: Nicholas McCaffrey **Survey Dates & Times:** See below

Location		Restriction	Capacity Min - Max	Fri 22nd March 2024 12pm
Map Ref.	**Park Street**			
	North Side			
F	St Kilda Road to Wells Street	NO ACCESS - CONSTRUCTION SITE	-	0
G	Wells Street to Subject Site East	No Stopping	-	0
H	Subject Site	No Stopping	-	0
		1P Ticket 8am-6pm Mon-Fri	5	2
		No Stopping	-	0
I	Little Bank Street to King's Way	No Stopping	-	0
		1P Ticket 8am-6pm Monday-Friday	6	5
		No Stopping	-	0
J	King's Way to Law Street	No Stopping	-	0
		1P 9:30am-4pm Mon-Fri No Stopping 7am-9:30am 4pm-6:30pm Mon-Fri	3	1
		1P 8am-Midnight Mon-Fri	6	4
		No Stopping	-	0
	South Side			
K	Opposite Law Street to King's Way	Permit Zone	2	1
		No Stopping	-	0
L	King's Way to Millers Lane	No Stopping	-	0
M	Millers Lane to Palmerston Cresent	No Stopping	-	0
N	St Kilda Road to Palmerston Crescent	No Stopping	-	0
		2P ticket 8am-6pm Mon-Fri	2	0
		No Stopping	-	0
		2P ticket 8am-6pm Mon-Fri	6	5
		No Stopping	-	0
Park Street		**Capacity**		**28**
		Total Number of Cars Parked		**17**
		Total Number of Vacant Spaces		**11**
		Percentage Occupancy		**61%**

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

Surveyed By: Nicholas McCaffrey

Survey Dates & Times: See below

Location		Restriction	Capacity Min - Max	Fri 22nd March 2024 12pm
Map Ref.	**Palmeerston Crescent**			
	East Side			
O	Park Street to Opposite Kings Place	No Stopping	-	0
		2P Ticket 8am-6pm Mon-Fri	3	3
		Loading Zone 15 Minute 8am-6pm Mon-Sat	2	2
		2P ticket 8am-6pm Mon-Fri	3	3
		No Stopping	-	0
P	Kings Place to Kings Way	2P Ticket 8am-6pm Mon-Fri	5	5
		No Stopping	-	0
	West Side			
Q	King's Way to King's Place	NO ACCESS - CONSTRUCTION SITE	-	0
R	King's Place to Matthews Lane	No Stopping	-	0
S	Matthews Lane to Park Street	1P Ticket 8am-6pm Mon-Fri	5	4
		No Stopping	-	0
Palmeerston Crescent		**Capacity**		**18**
		Total Number of Cars Parked		**17**
		Total Number of Vacant Spaces		**1**
		Percentage Occupancy		**94%**

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

Traffix Group

Surveyed By: Nicholas McCaffrey

Survey Dates & Times: See below

Location		Restriction	Capacity Min - Max	Fri 22nd March 2024 12pm
Map Ref.	**Kings Place**			
	North Side			
T	Palmerstron Cres to Millers Lane	No Stopping	-	4
U	Millers Lane to Kings Way	1P Ticket 8am-6pm Mon-Fri	2	2
		No Stopping	-	0
		1P Ticket 8am-6pm Mon-Fri	6	6
		No Stopping	-	0
	South Side			
V	Kings Way to Cobden Street	1P Ticket 8am-6pm Mon-Fri	3	0
W	Cobden Street to Palmerston Crescent	NO ACCESS - CONSTRUCTION SITE	-	0
Kings Place		**Capacity**		**11**
		Total Number of Cars Parked		**12**
		Total Number of Vacant Spaces		**-1**
		Percentage Occupancy		**109%**

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

Traffix Group

Surveyed By: Nicholas McCaffrey **Survey Dates & Times:** See below

Location		Restriction	Capacity Min - Max	Fri 22nd March 2024 12pm
Map Ref.	**Cobden Street**			
	East Side			
X	Kings Place to Kings Way	NO ACCESS - CONSTRUCTION SITE	-	0
	South Side			
Y	Kings Way to Kings Place	No Stopping	-	0
Cobden Street		**Capacity**		**0**
		Total Number of Cars Parked		**0**
		Total Number of Vacant Spaces		**0**
		Percentage Occupancy		**N/A**
SUMMARY => ON-STREET CARPARKING				
Car Parking Supply				**202**
Total Number of Cars Parked				**159**
Total Number of Vacant Spaces				**43**
Percentage Occupancy				**79%**

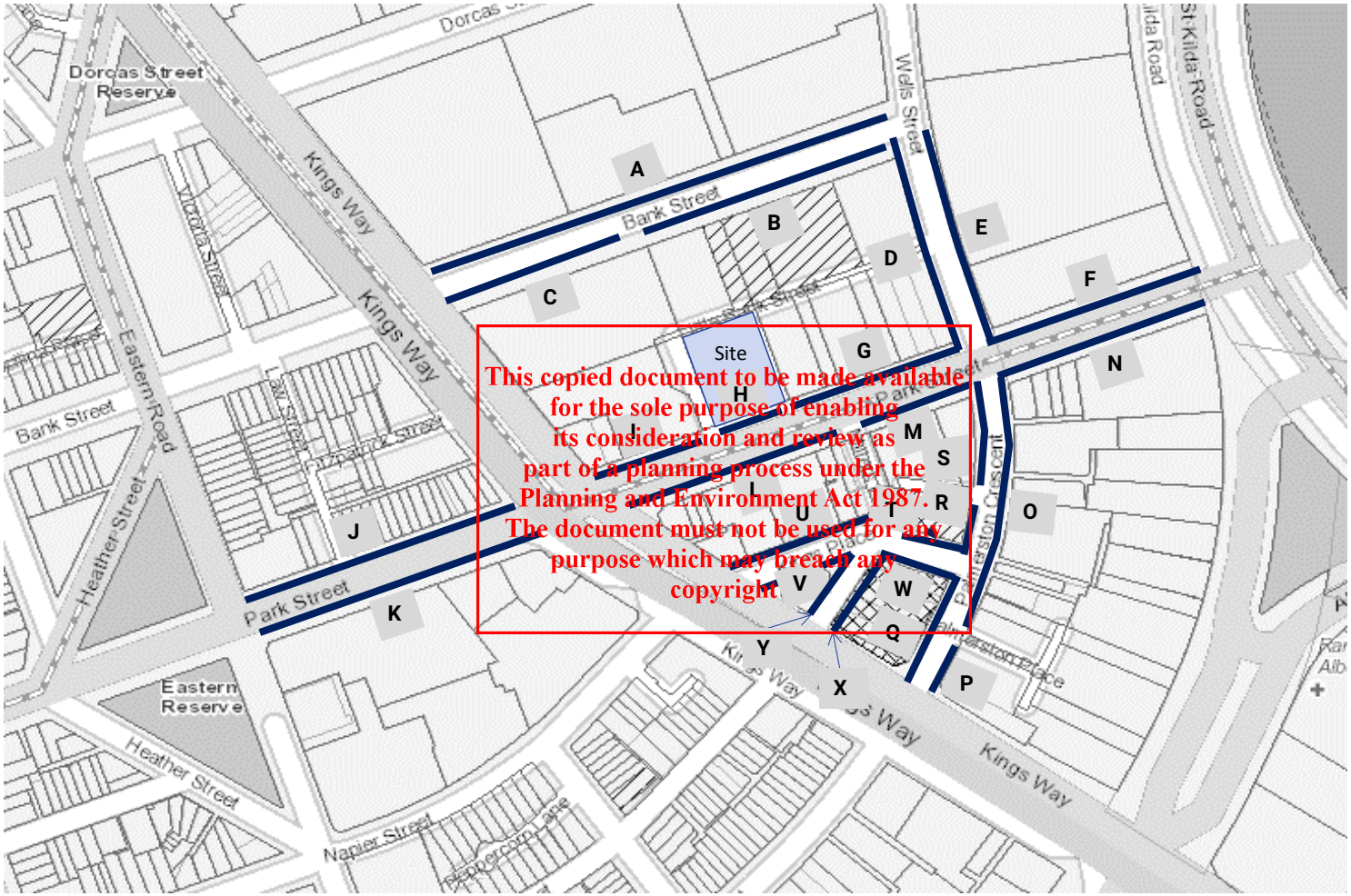
Note: Public parking includes spaces that are available to the general public and excludes 'No Stopping', 'Loading Zones' and 'No Parking' areas, etc., during the relevant enforcement periods

LEGEND:

Public Parking	
Not available to the general public	
Not Available, illegally parked cars included in analysis	
No Stopping/ Other No Parking	

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

Traffix Group



Appendix C

Bicycle Rack Specifications

CORA BIKE RACK

PRODUCT SPECIFICATION SHEET

GROUND PIVOT - DYNAMIC LOWER TIERS

- The **GP-F** (front-in) and **GP-B** (back-in) are dynamic lower tier bike racks
- Dynamic pivot motion allows ease of use with reduced spacing requirements
- Strategically positioned lock points
- Ideal for bike rooms and EOT areas where maximum capacity is critical
- Suitable for indoor installations with no weather exposure

ALTERNATING HEAD TO TAIL MODELS FOR **MAXIMUM** CAPACITY

GP-F

GP-B

DESIGNED FOR BIKES WITH

- A WHEEL DIAMETER OF = 20-29”
- A MAXIMUM TYRE WIDTH OF = 60mm / 2.35”
- KG — A MAXIMUM WEIGHT OF = 25KG
- FENDERS / MUDGUARDS = YES

SPECIFICATIONS

Capacity	Finish	Fixings	Assembly	Construction	Compliance
1 bike per rack	Main frame – Cora ceramic powder coat Handle and lock bar – Cora powder coat	4 x M10 x 60mm anchor bolts	Fix rack to concrete surface	Mild steel	AS2890.3 (2015) compliant

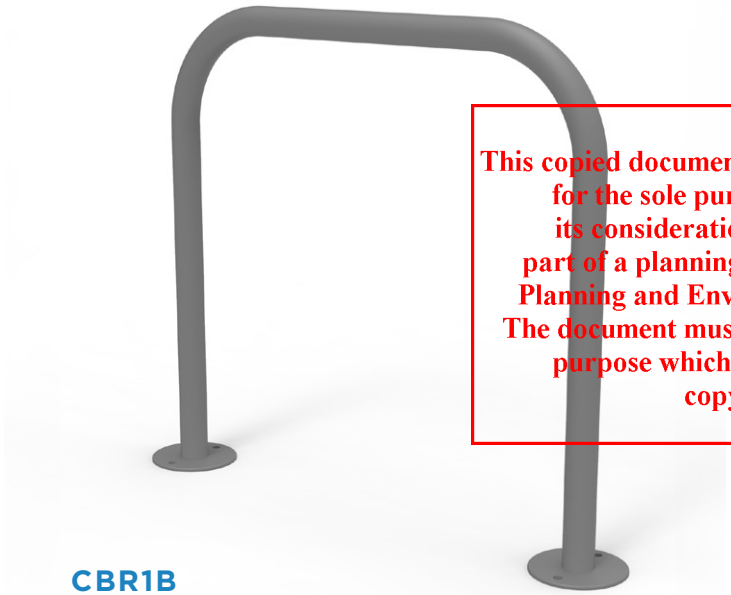
CORA BIKE RACK

PRODUCT SPECIFICATION SHEET

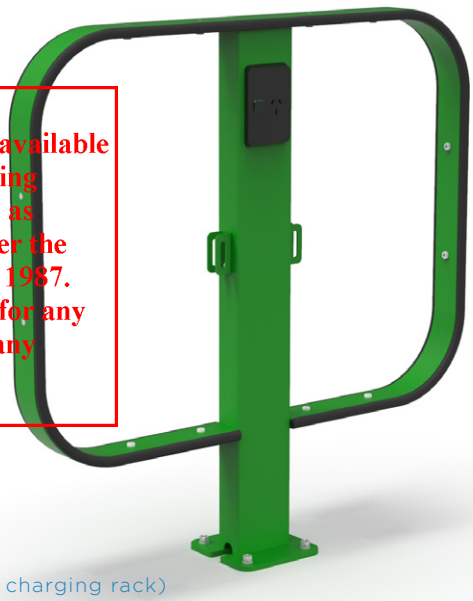
STATIC LOWER TIER OPTIONS

- The **CBR1B** and **SG-E** are static bicycle parking rails
- Easy lean and lock system for 1 or 2 bicycles
- Great choice for bike rooms where high capacity and budget are important
- Suitable for indoor installations with no weather exposure

COST EFFECTIVE BIKE RAILS OR E-BIKE CHARGING RACKS



CBR1B



SG-E
(e-bike charging rack)

see product specification sheet for additional product details

DESIGNED FOR BIKES WITH → ANY WHEEL DIAMETER | ANY TYRE WIDTH | KG ANY WEIGHT | FENDERS / MUDGUARDS = YES

SPECIFICATIONS

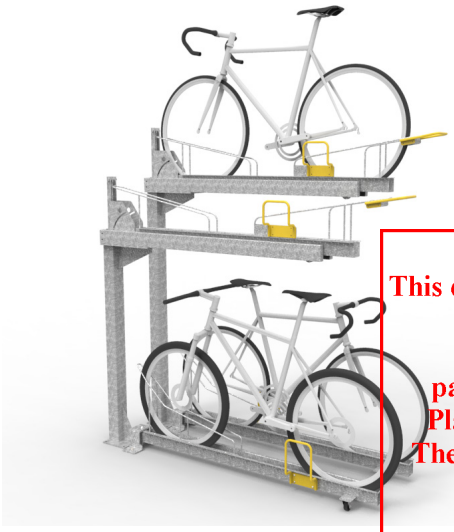
Capacity	Finish	Fixings	Assembly	Construction	Compliance
2 bikes per rack	Cora ceramic or powder coat colours	4 x M12 x 80mm anchor bolts with tamper resistant fasteners	Fix rack to concrete surface	Mild steel	AS2890.3 (2015) compliant

CORA BIKE RACK

PRODUCT SPECIFICATION SHEET

STAGGERED HEIGHT
LAYOUT GUIDE
DYNAMIC UPPER TIERS / DYNAMIC LOWER TIERS

There are numerous configuration possibilities for double tier systems. **Options shown are compliant with AS2890.3 (2015)**

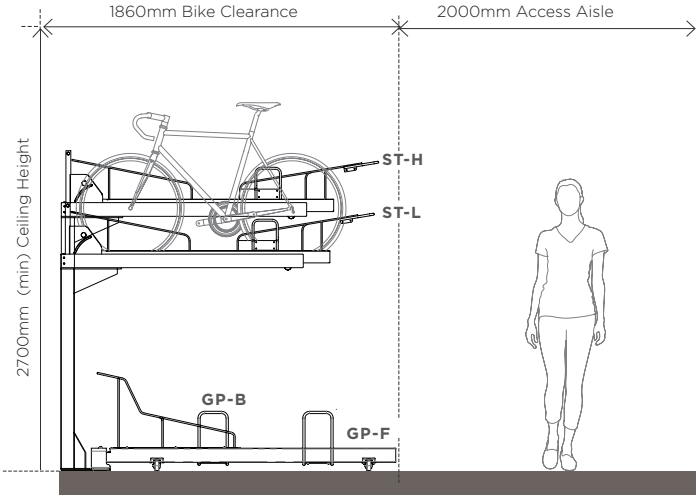


PERSPECTIVE VIEW WITH GP LOWER TIERS

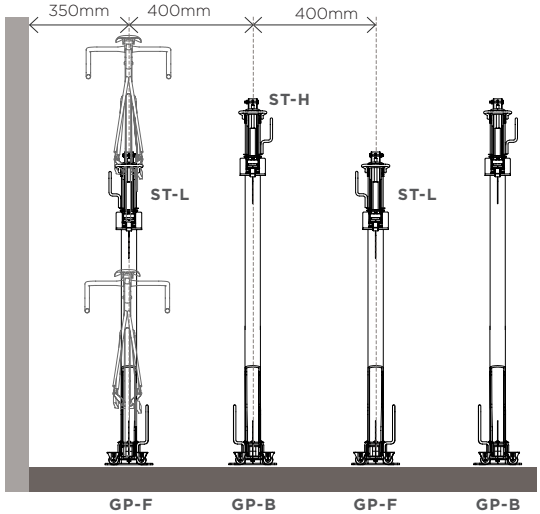
DYNAMIC UPPER/ DYNAMIC LOWER

To comply with AS2890.3 (2015), minimum spacing between rack centres is:

- ST Upper Tiers: 400mm if adjacent racks are offset in height by 300mm;
- GP Lower Tiers: 400mm if adjacent racks are provide head to tail parking



SIDE VIEW WITH GP LOWER TIERS



FRONT VIEW WITH GP LOWER TIERS

Refer to Installation Instructions sheet for specific installation and assembly guidelines. Racks should NOT be installed based on this sheet alone.

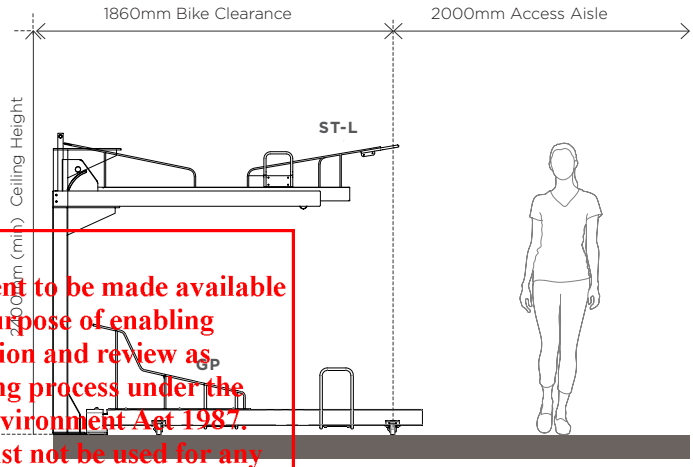
CORA BIKE RACK

PRODUCT SPECIFICATION SHEET

SINGLE HEIGHT
LAYOUT GUIDE
DYNAMIC UPPER TIERS / DYNAMIC LOWER TIERS

There are numerous configuration possibilities for double tier systems. **Options shown are compliant with AS2890.3 (2015)**

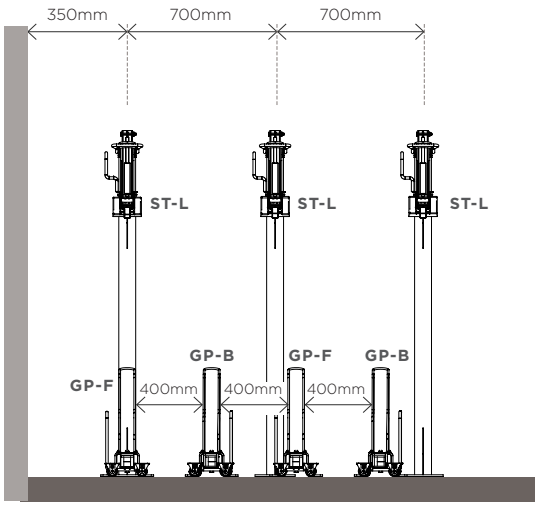
PERSPECTIVE VIEW WITH GP LOWER TIERS



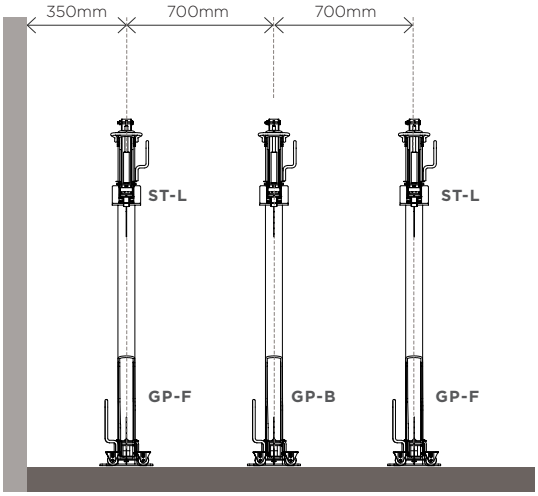
SIDE VIEW WITH GP LOWER TIERS

To comply with AS2890.3 (2015), minimum spacing between rack centres is:

- Where adjacent upper tier racks cannot be offset in height due to low ceiling clearance, single level racks can be used if spaced a minimum of 700mm apart
- GP Lower Tiers: - 400mm for maximum density; or 700mm for a symmetrical appearance



FRONT VIEW MAXIMUM DENSITY



FRONT VIEW SYMMETRICAL APPEARANCE

Refer to Installation Instructions sheet for specific installation and assembly guidelines. Racks should NOT be installed based on this sheet alone.

CORA BIKE RACK

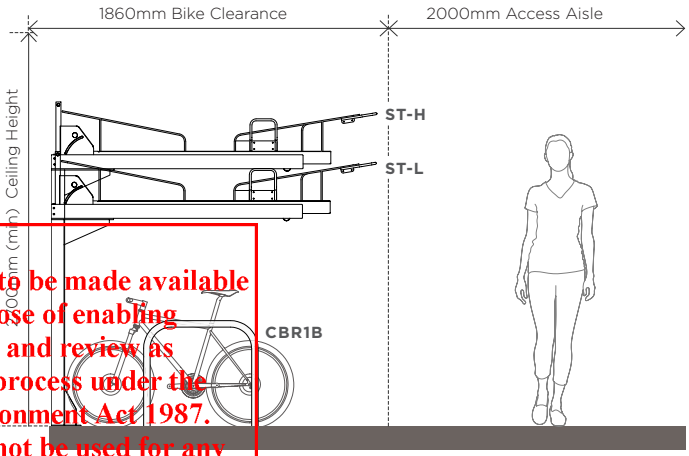
PRODUCT SPECIFICATION SHEET

STAGGERED HEIGHT
LAYOUT GUIDE

DYNAMIC UPPER TIERS / STATIC LOWER TIER

There are numerous configuration possibilities for double tier systems. **Options shown are compliant with AS2890.3 (2015)**

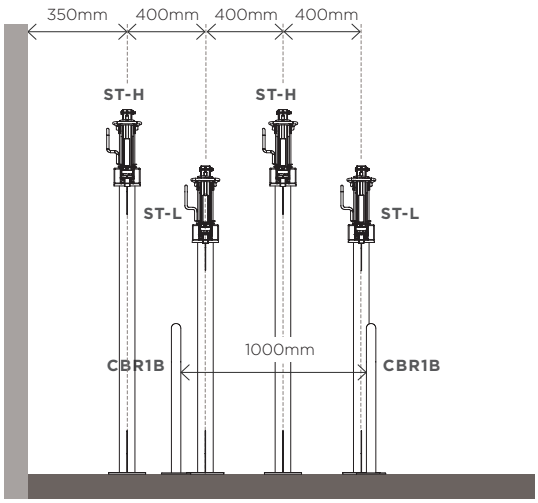
PERSPECTIVE VIEW WITH CBR1B LOWER TIERS



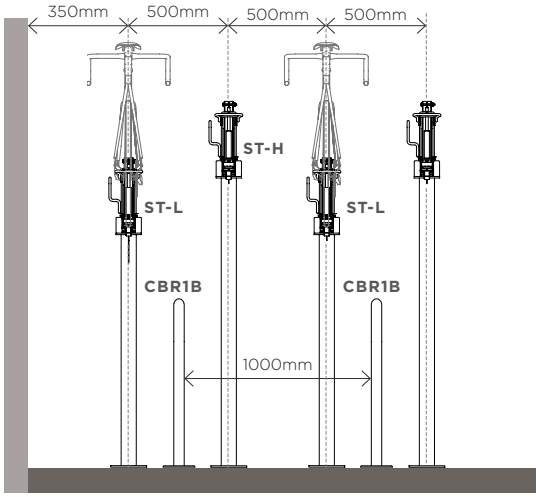
SIDE VIEW WITH CBR1B LOWER TIERS

To comply with AS2890.3 (2015), minimum spacing between rack centres is:

- ST Upper Tiers: 400mm for maximum density; or 500mm for a symmetrical appearance
- CBR1B or lower bike rails: 1000mm (500mm per bike space)



FRONT VIEW MAXIMUM DENSITY



FRONT VIEW SYMMETRICAL APPEARANCE

Refer to Installation Instructions sheet for specific installation and assembly guidelines. Racks should NOT be installed based on this sheet alone.

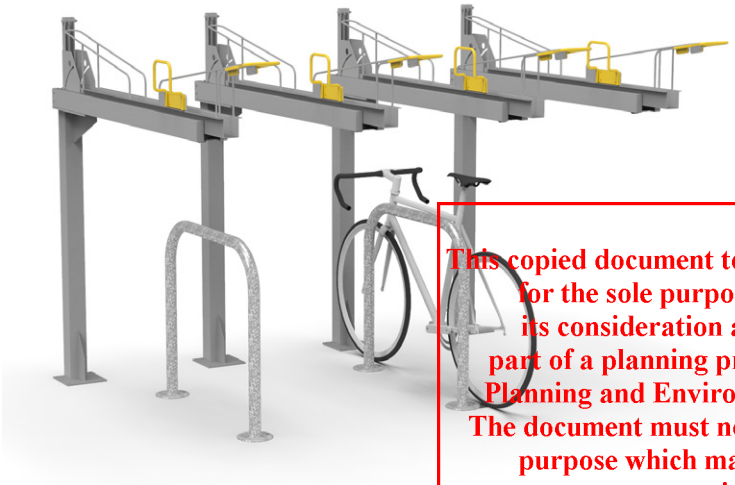
CORA BIKE RACK

PRODUCT SPECIFICATION SHEET

SINGLE HEIGHT
LAYOUT GUIDE

DYNAMIC UPPER TIERS / STATIC LOWER TIER OPTIONS

There are numerous configuration possibilities for double tier systems. **Options shown are compliant with AS2890.3 (2015)**

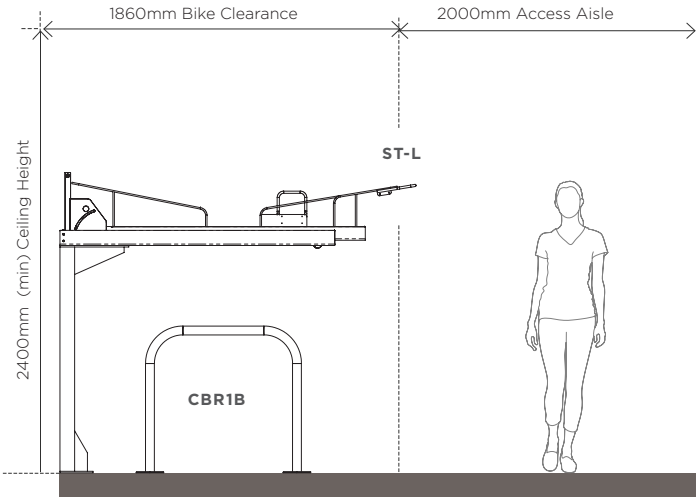


PERSPECTIVE VIEW WITH CBR1B LOWER TIERS

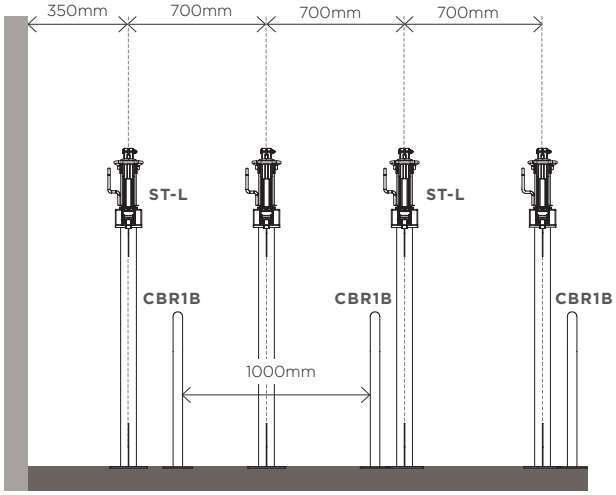
SINGLE HEIGHT DYNAMIC UPPER/ STATIC LOWER TIERS

To comply with AS2890.3 (2015), minimum spacing between rack centres is:

- Where adjacent upper tier racks cannot be offset in height due to low ceiling clearance, single level racks can be used if spaced a minimum of 700mm apart
- CBR1B lower bike rails: 1000mm



SIDE VIEW WITH GP LOWER TIERS



FRONT VIEW WITH CBR1B LOWER TIERS

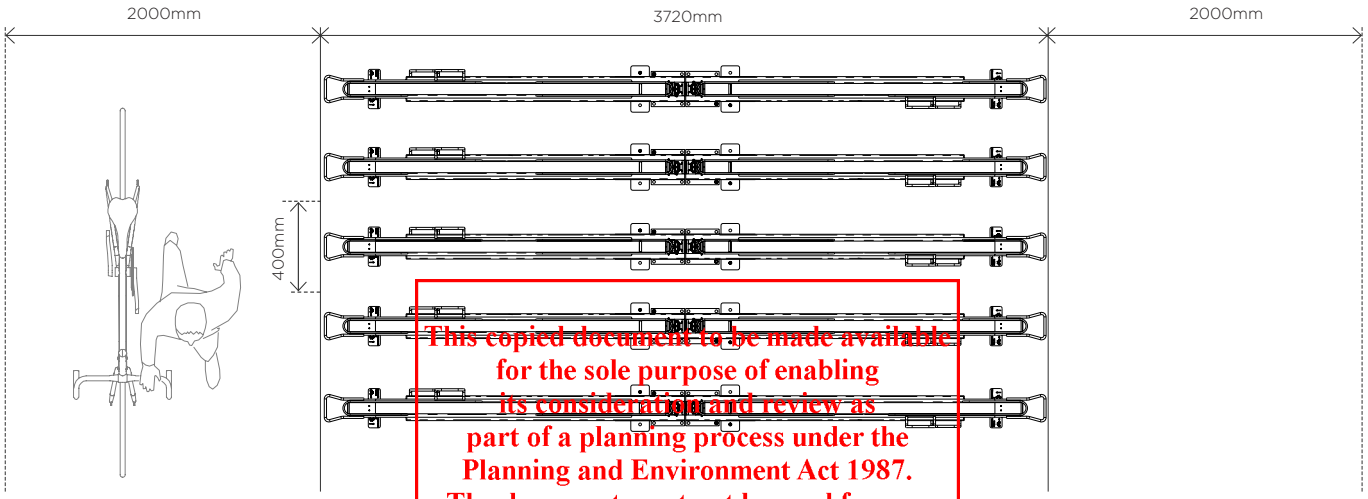
Refer to Installation Instructions sheet for specific installation and assembly guidelines. Racks should NOT be installed based on this sheet alone.

CORA BIKE RACK

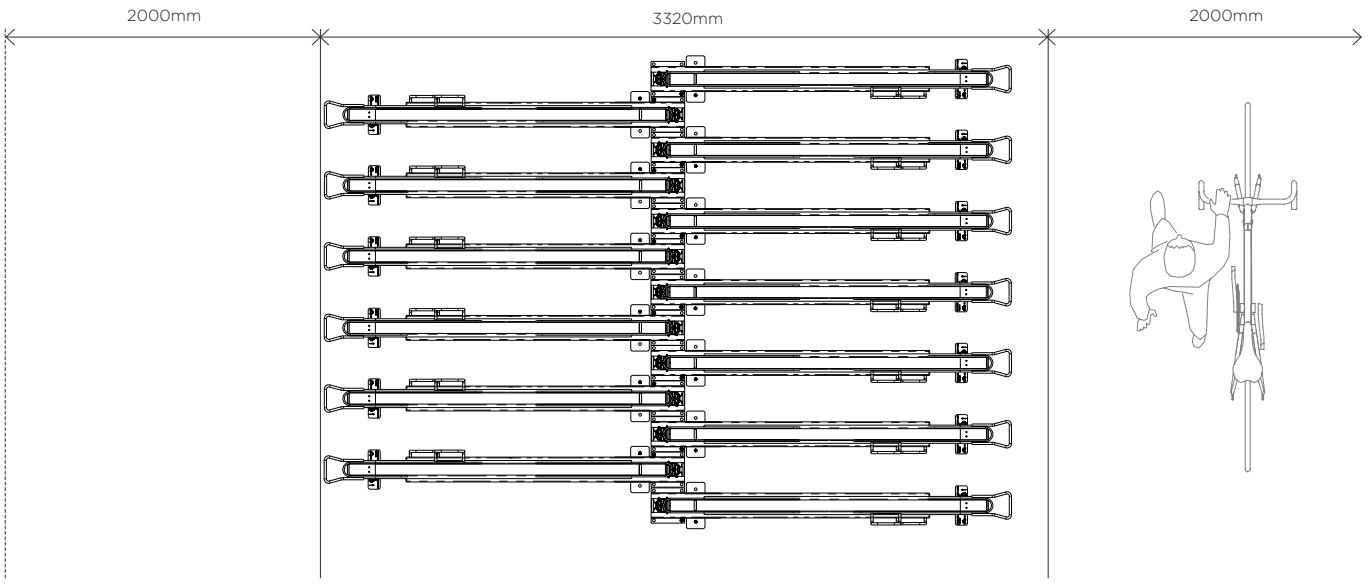
PRODUCT SPECIFICATION SHEET

BACK TO BACK & NESTED LAYOUTS

BACK TO BACK LAYOUT



NESTED LAYOUT



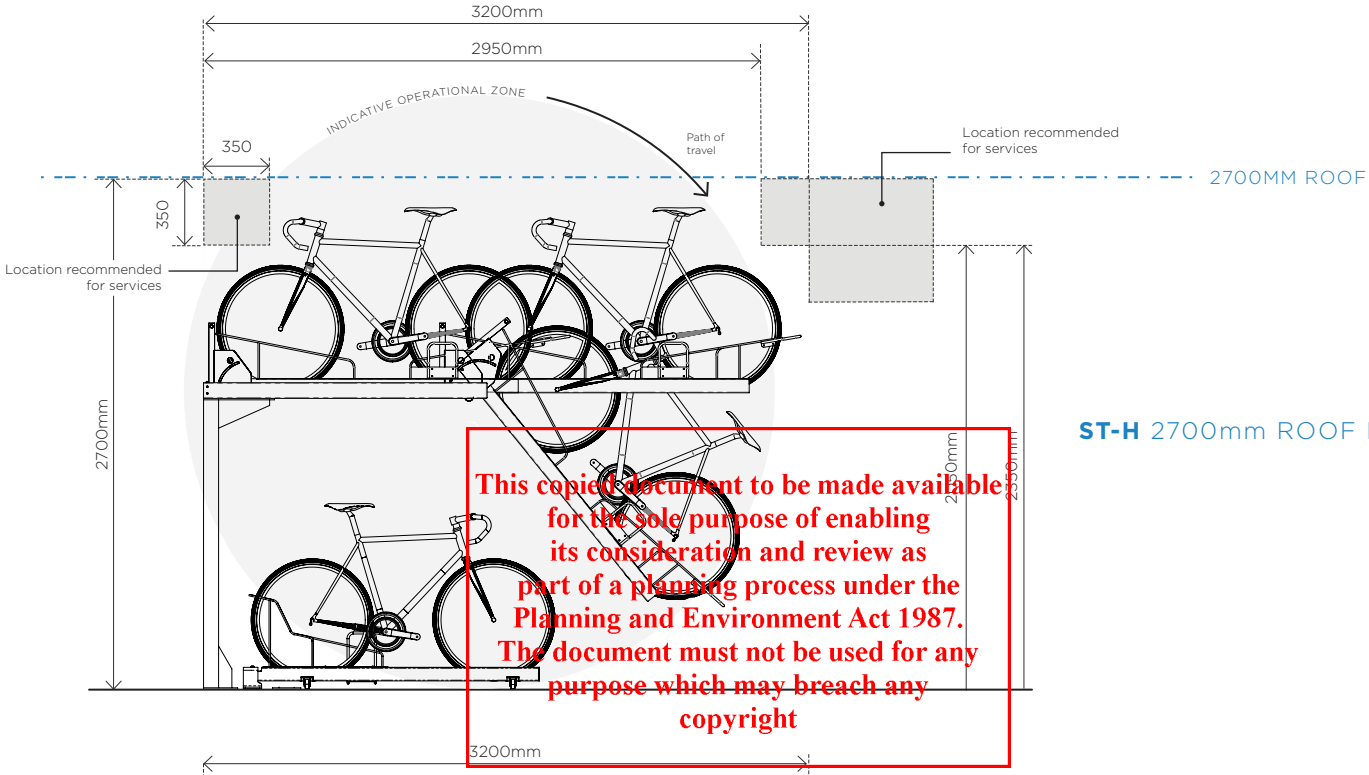
Refer to Installation Instructions sheet for specific installation and assembly guidelines. Racks should NOT be installed based on this sheet alone.

CORA BIKE RACK

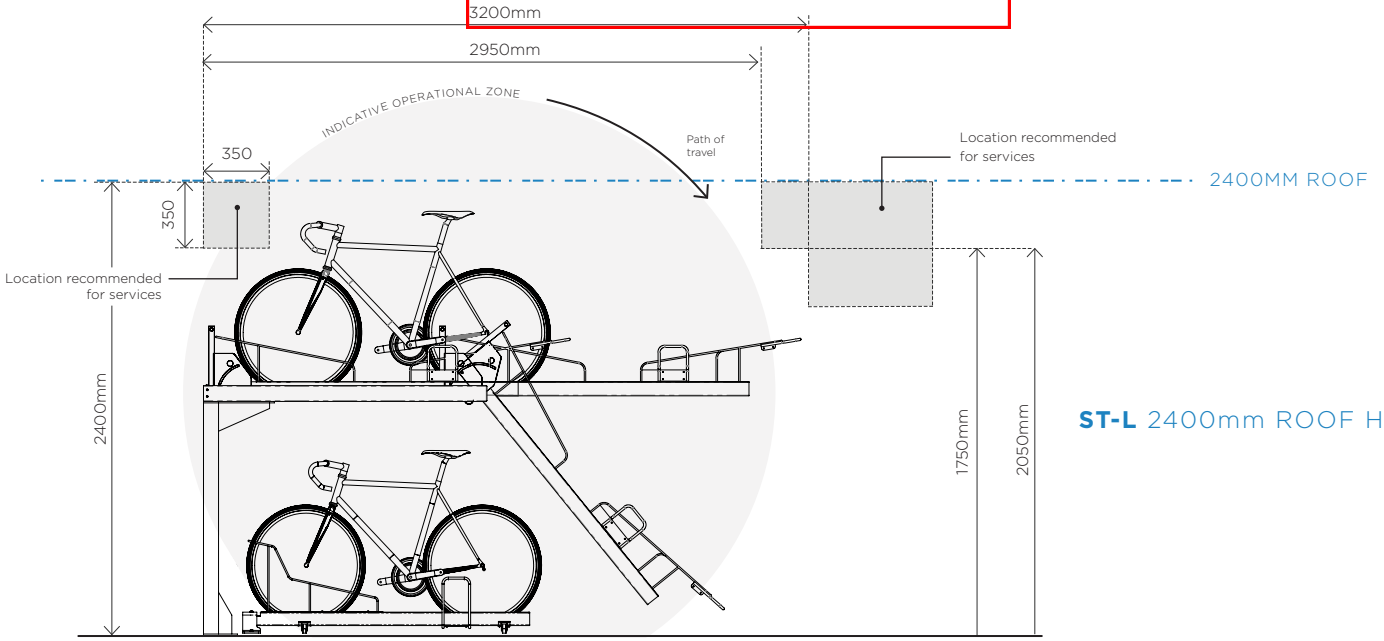
PRODUCT SPECIFICATION SHEET

ST-L & ST-H

ACCESS CLEARANCE



ST-H 2700mm ROOF HEIGHT



ST-L 2400mm ROOF HEIGHT

Refer to Installation Instructions sheet for specific installation and assembly guidelines. Racks should NOT be installed based on this sheet alone.

sales@cora.com.au
www.cora.com.au

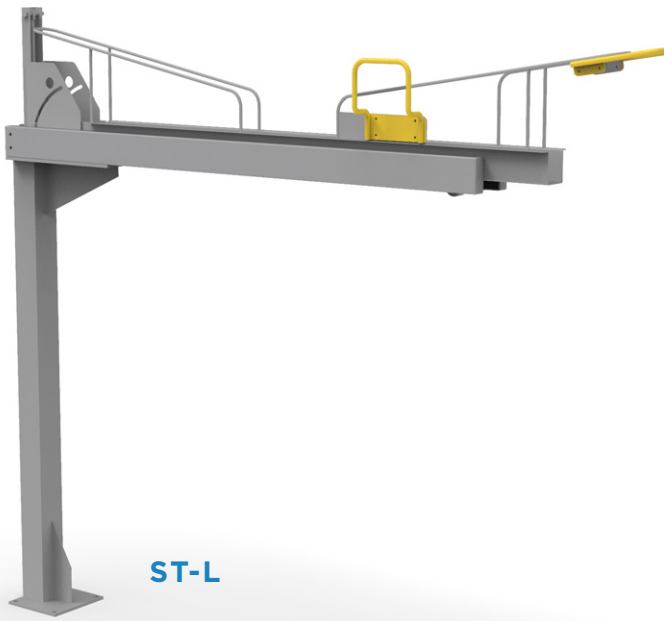
CORA BIKE RACK

PRODUCT SPECIFICATION SHEET

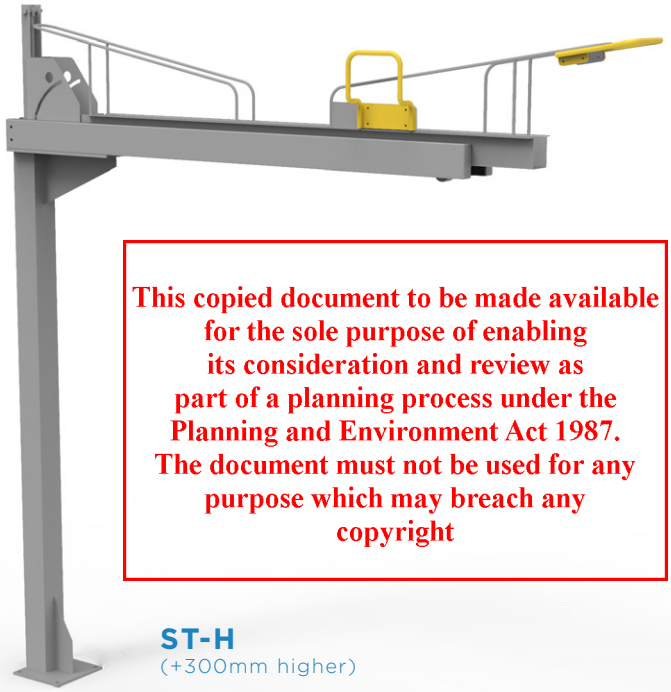
SKY TIER - DYNAMIC UPPER TIERS

- The **ST-L** (low) and **ST-H** (high) are dynamic upper tier bike racks
- Gas strut assist lift mechanism makes access a breeze
- Strategically positioned lock points
- Ideal for bike rooms and EOT areas where maximum capacity is critical
- Suitable for indoor installations with no weather exposure

AUSTRALIA'S MOST **VERSATILE** DOUBLE TIER SYSTEM



ST-L



ST-H
(+300mm higher)

DESIGNED FOR BIKES WITH

- A WHEEL DIAMETER OF = 20-29"
- A MAXIMUM TYRE WIDTH OF = 60mm / 2.35"
- KG — A MAXIMUM WEIGHT OF = 25KG
- FENDERS / MUDGUARDS = YES

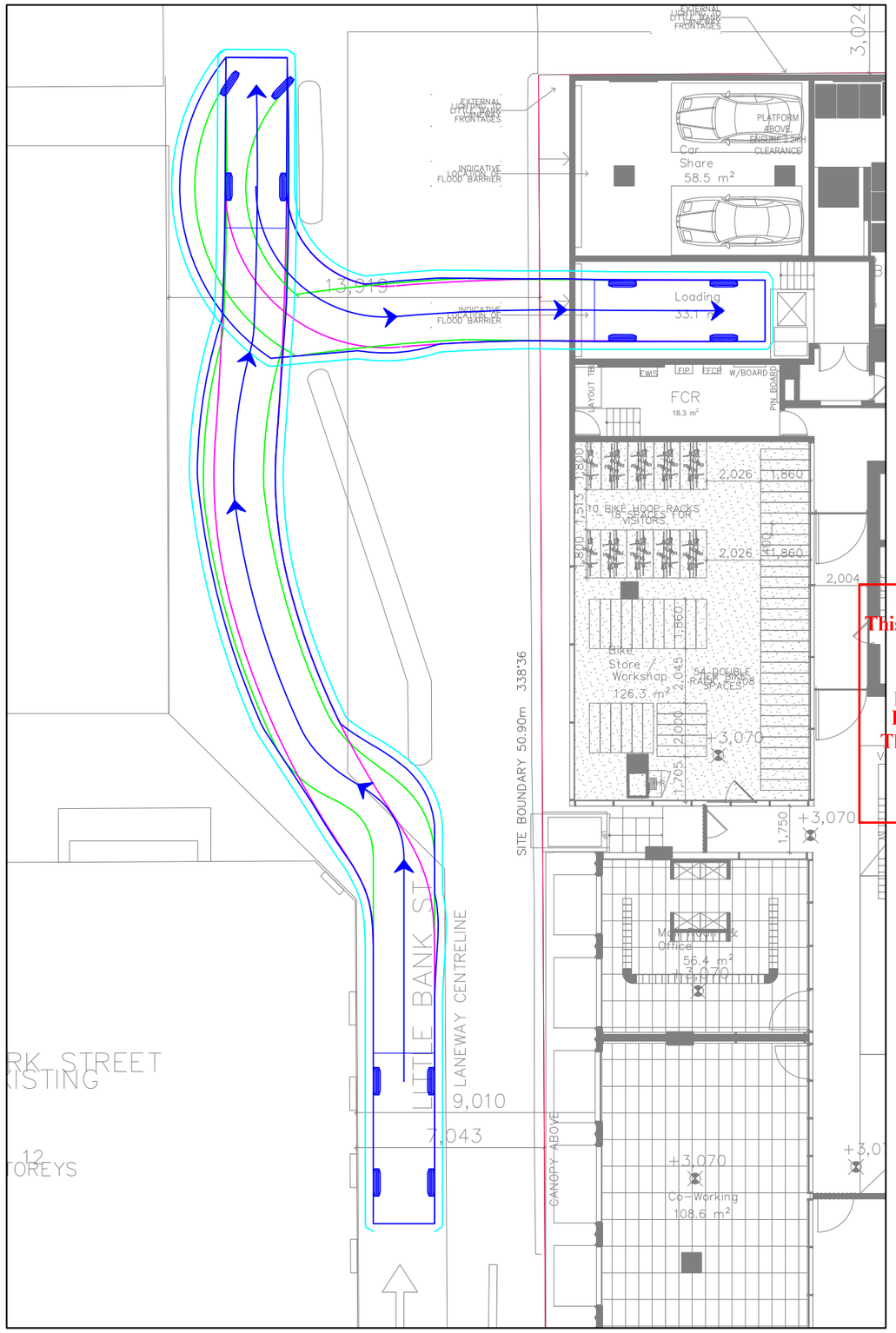
SPECIFICATIONS

Capacity	Finish	Fixings	Assembly	Construction	Compliance
1 bike per rack	Main frame - Cora ceramic powder coat Handle and lock bar - Cora powder coat	Post: 4 x M12 x 80mm anchor bolts Rack: 4 x M10 bolts	Fix post to concrete surface Fix rack to top of post	Mild steel	AS2890.3 (2015) compliant

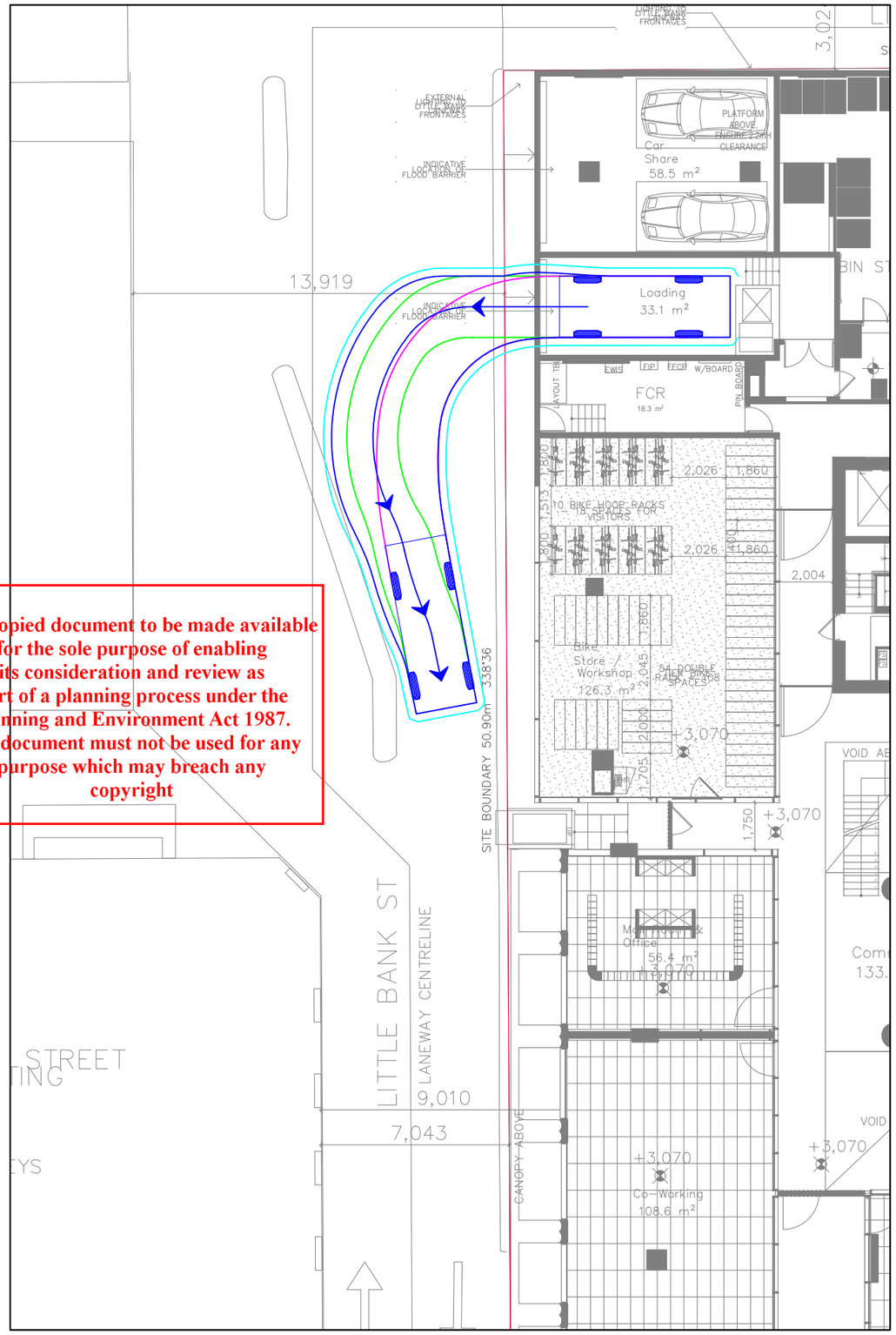
Appendix D

Swept Path Diagrams

SRV - INGRESS

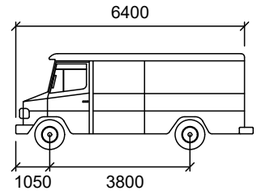


SRV - EGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION



SRV (AS 2890.2) mm

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

LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	19/12/2024	TP	L.GREEN	L.FURNESS
B	03/04/2025	TP	L.GREEN	L.FURNESS
C	29/08/2025	TP	L.GREEN	L.FURNESS
D	31/10/2025	STG 2	L.GREEN	L.FURNESS

60-70 PARK STREET, SOUTH MELBOUNRE

PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

DRAWINGS BY: DKO Architects

FILE NAME: G35716-01

SHEET NO.: 01

SCALE: 1:200 (A3)

0 2 4

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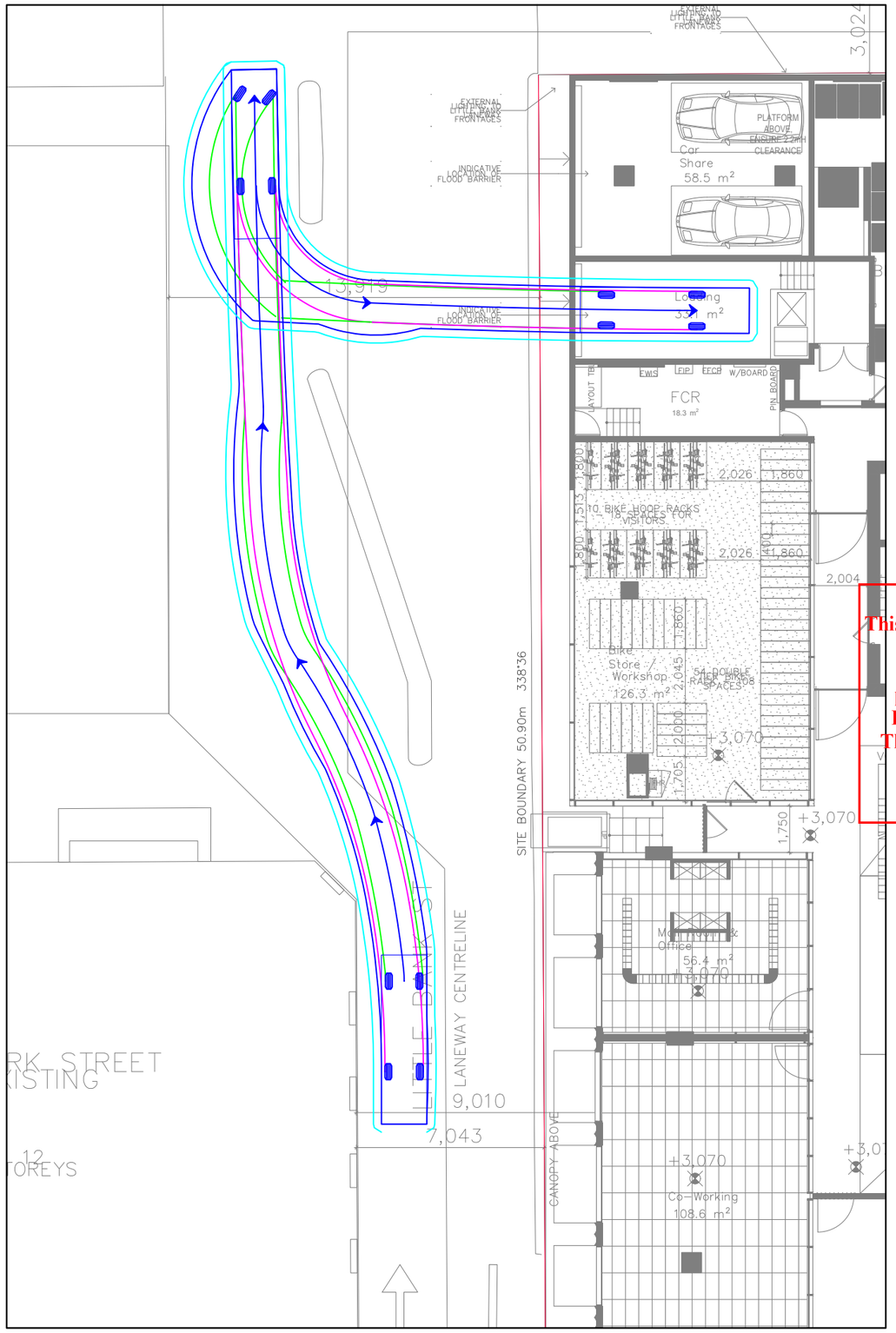
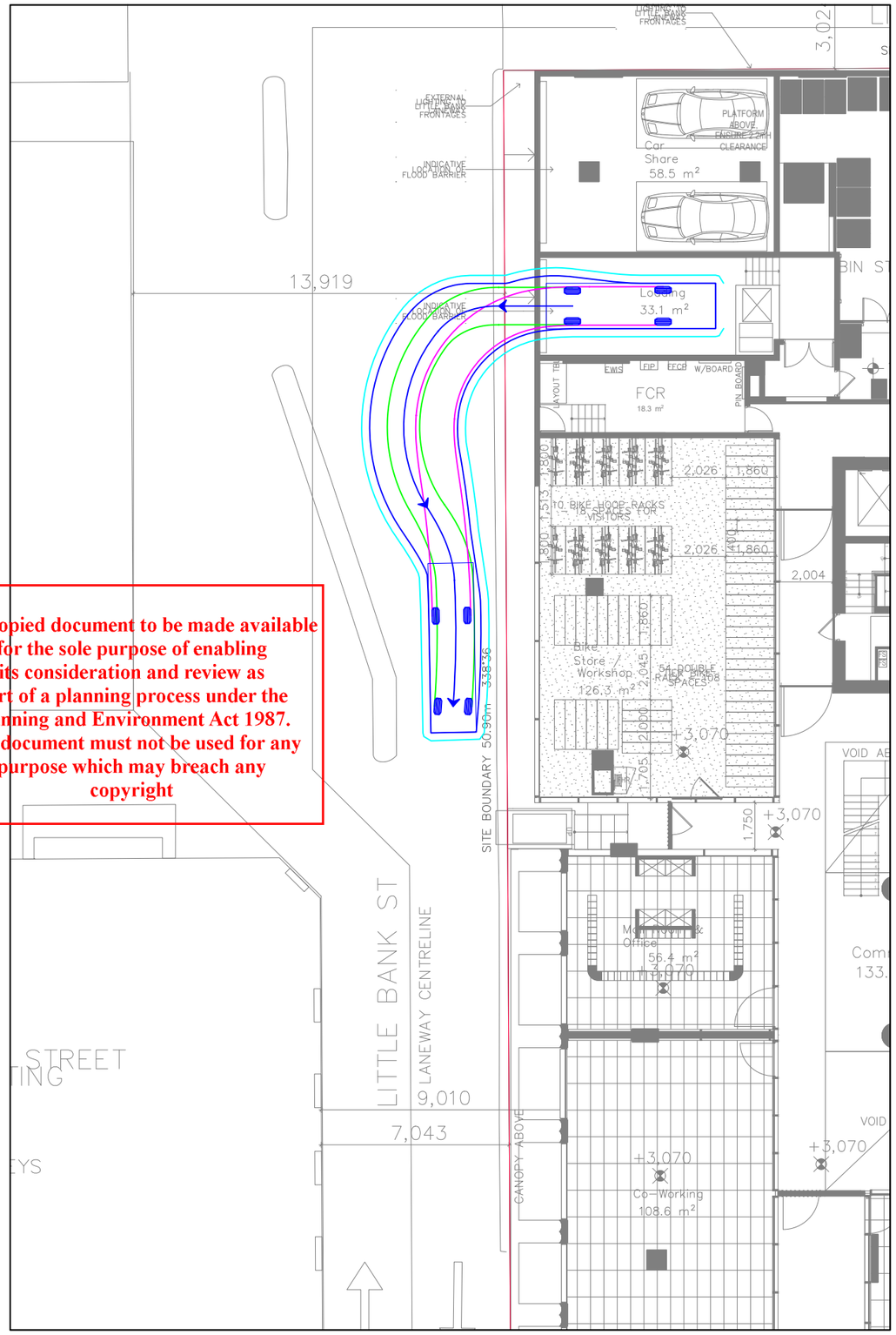
www.traffixgroup.com.au

WASTE VEHICLE - INGRESS

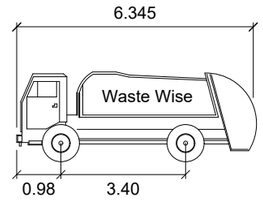


WASTE VEHICLE - EGRESS



VEHICLE PROFILE

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

LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	19/12/2024	TP	L.GREEN	L.FURNESS
B	03/04/2025	TP	L.GREEN	L.FURNESS
C	29/08/2025	TP	L.GREEN	L.FURNESS
D	31/10/2025	STG 2	L.GREEN	L.FURNESS

60-70 PARK STREET, SOUTH MELBOUNRE

PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

DRAWINGS BY: DKO Architects

FILE NAME: G35716-01

SHEET NO.: 02

N

SCALE: 1:200 (A3)

0 2 4

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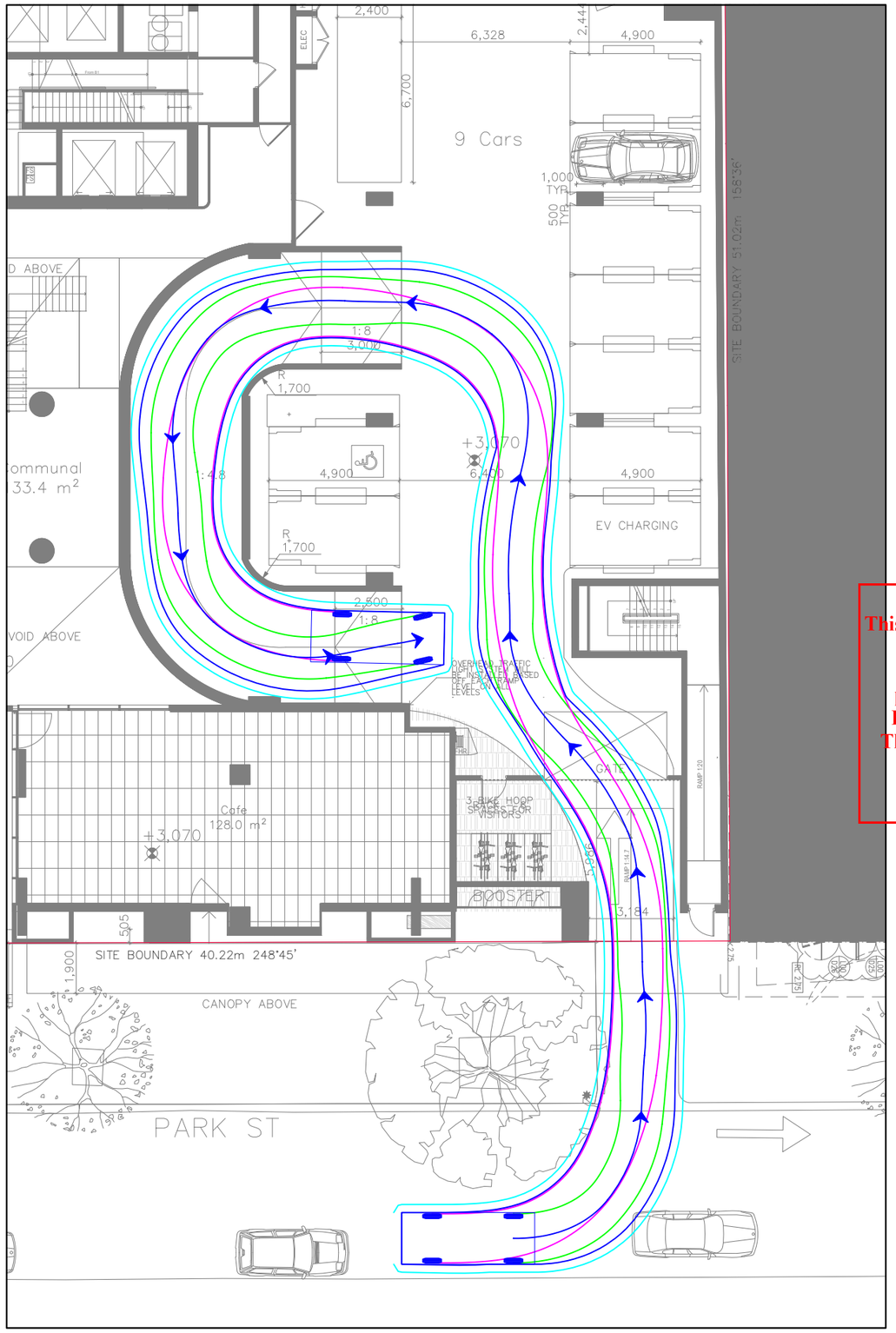
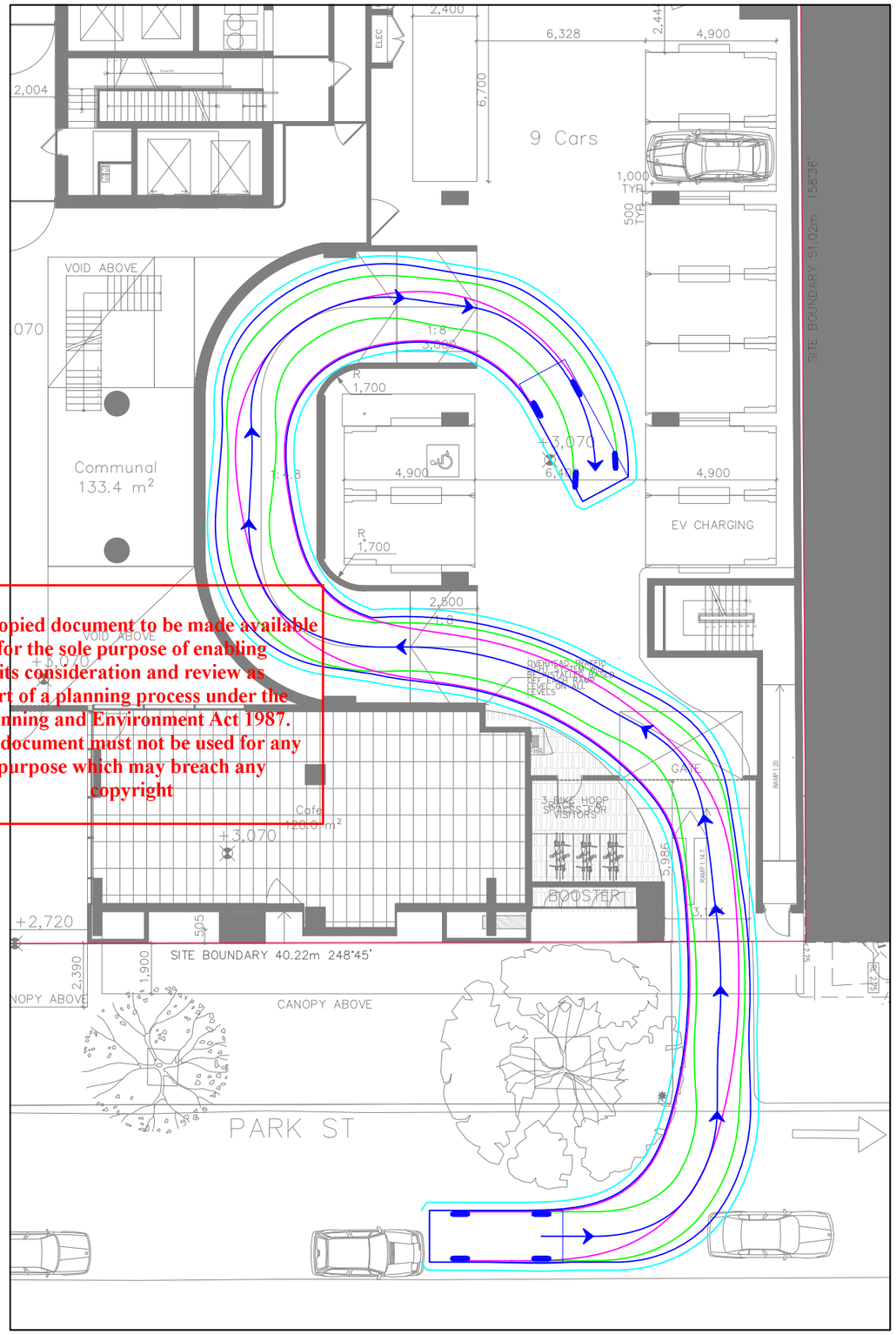
B99 SITE CIRCULATION - GF TO BASEMENT



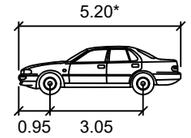
B99 SITE CIRCULATION - GF TO L1



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



99th percentile
(AS/NZS 2890.1:2004)

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

LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	19/12/2024	TP	L.GREEN	L.FURNESS
B	03/04/2025	TP	L.GREEN	L.FURNESS
C	29/08/2025	TP	L.GREEN	L.FURNESS
D	31/10/2025	STG 2	L.GREEN	L.FURNESS

60-70 PARK STREET, SOUTH MELBOUNRE

PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

DRAWINGS BY: DKO Architects

FILE NAME: G35716-01

SHEET NO.: 03

N

SCALE: 1:200 (A3)

0 2 4

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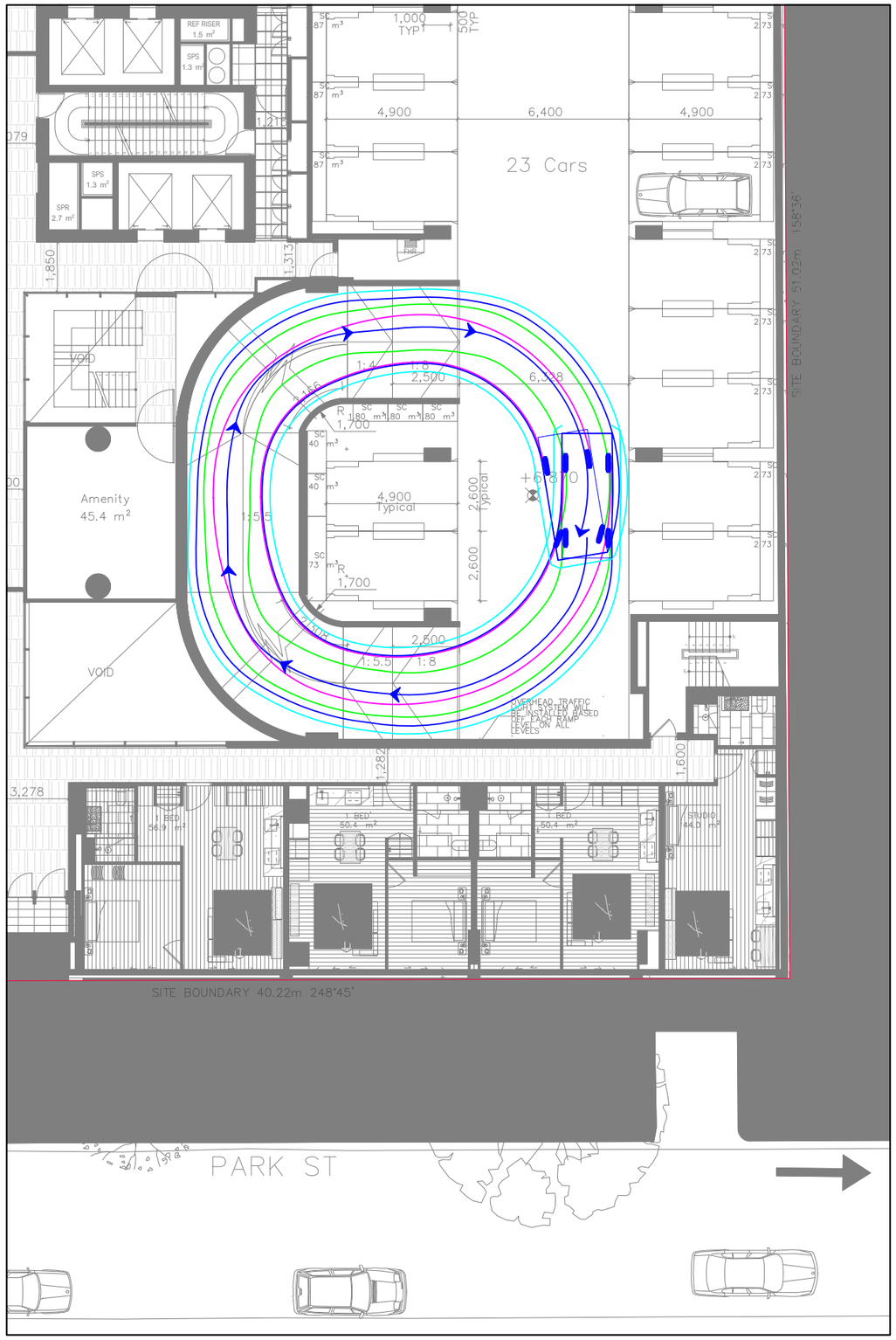
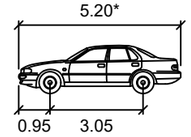
B99 SITE CIRCULATION - L1 TO L2



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



99th percentile
(AS/NZS 2890.1:2004)

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

LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	19/12/2024	TP	L.GREEN	L.FURNESS
B	03/04/2025	TP	L.GREEN	L.FURNESS
C	29/08/2025	TP	L.GREEN	L.FURNESS
D	31/10/2025	STG 2	L.GREEN	L.FURNESS

60-70 PARK STREET, SOUTH MELBOUNRE
PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

DRAWINGS BY: DKO Architects

FILE NAME: G35716-01
SHEET NO.: 04

N

SCALE:
1:200 (A3)

0 2 4

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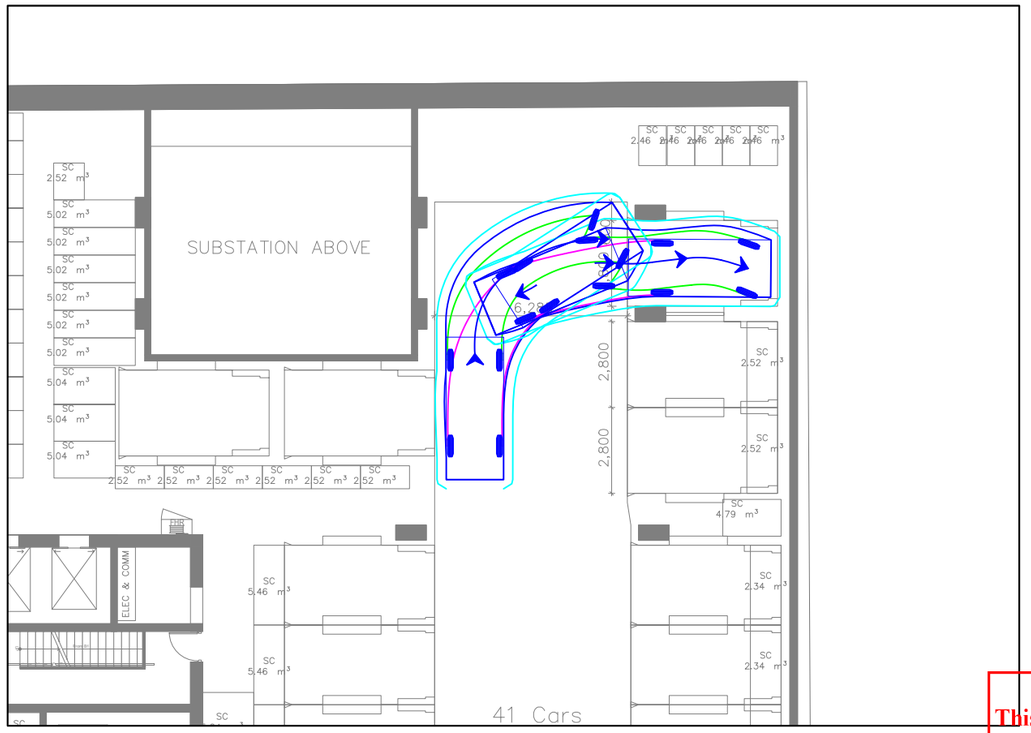
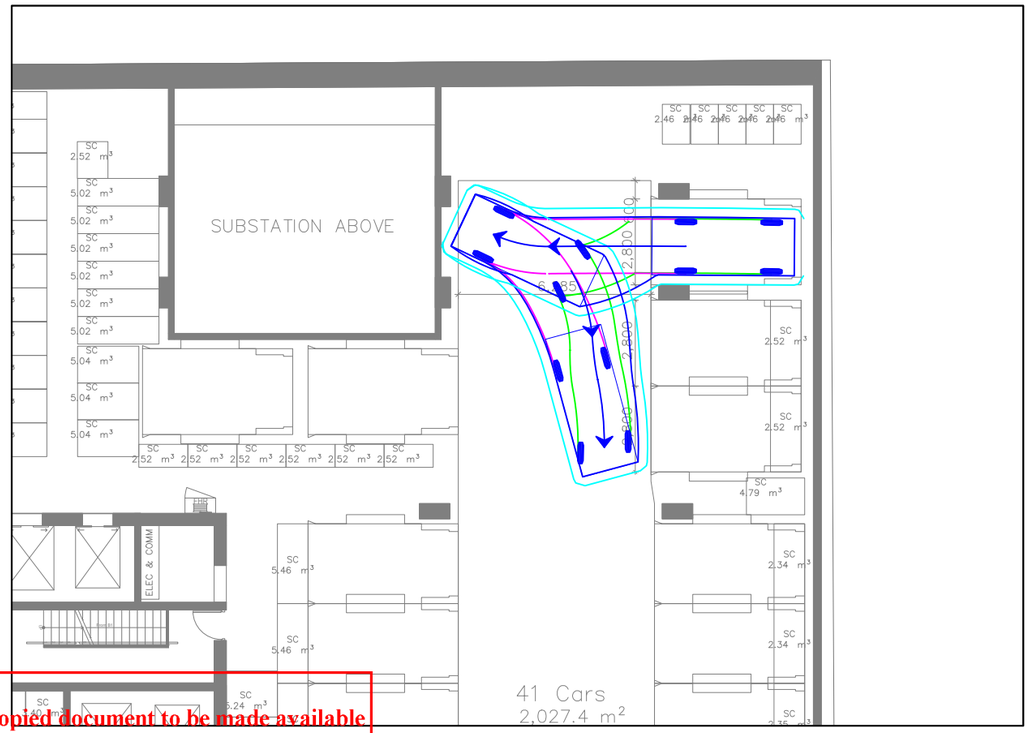
CAR SPACE 01 - INGRESS



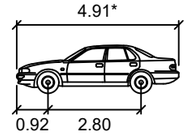
CAR SPACE 01 - EGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



85th percentile
(AS/NZS 2890.1:2004)

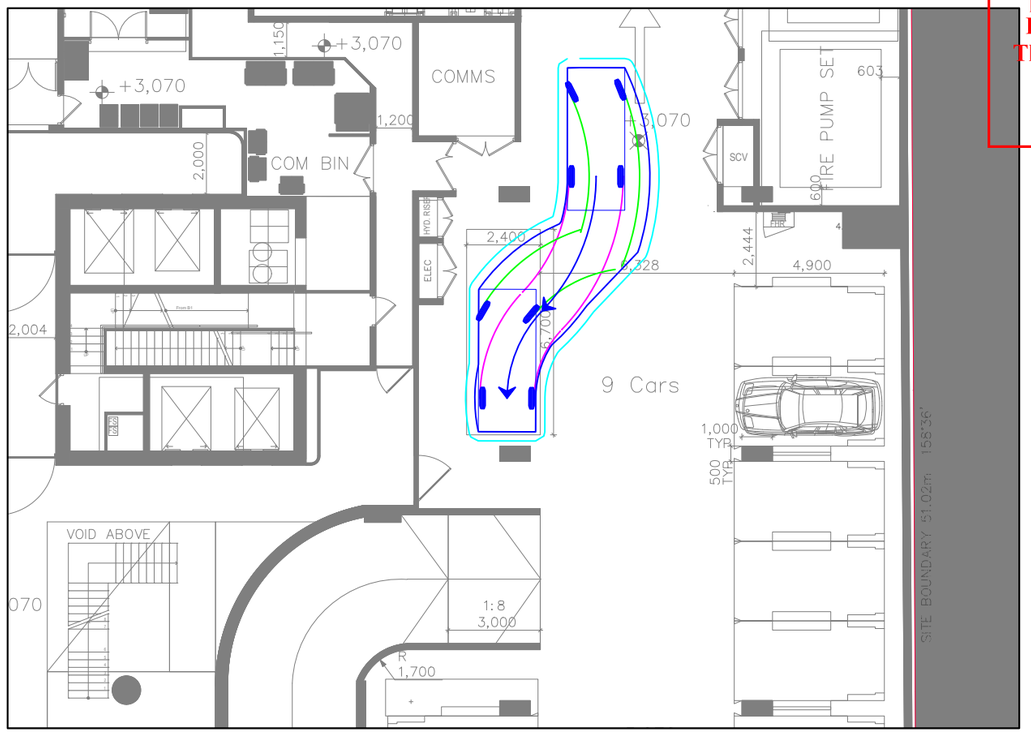
Width	:	1.87m
Track	:	1.77m
Kerb to Kerb Radius	:	11.5m

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

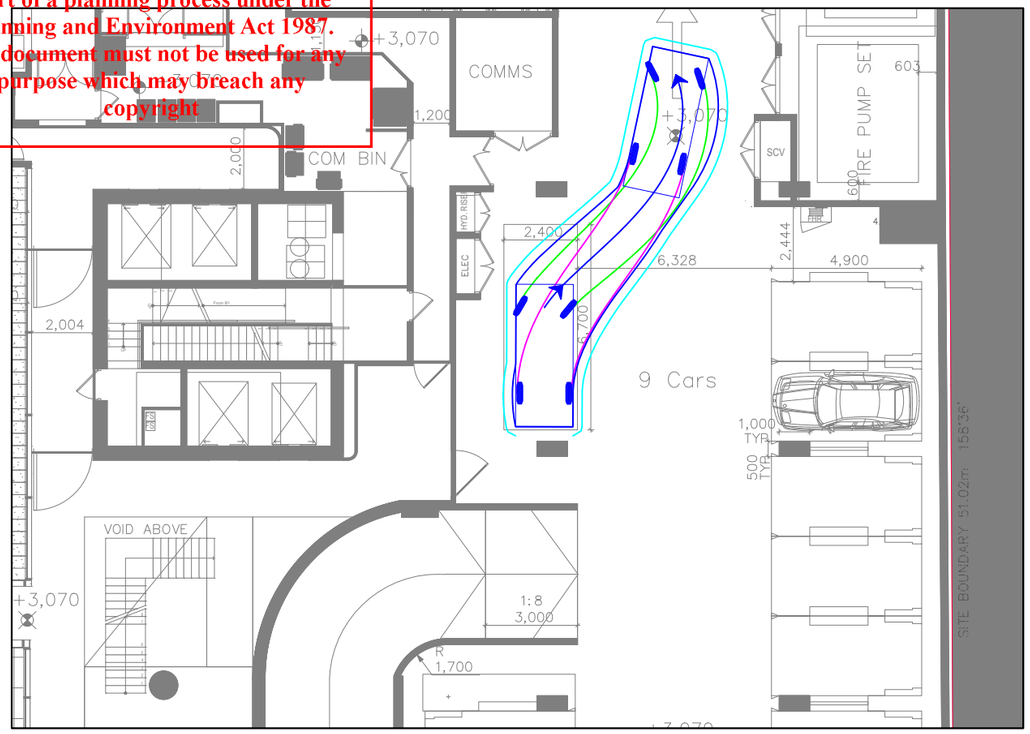
LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

CAR SPACE 02 - INGRESS



CAR SPACE 02 - EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	19/12/2024	TP	L.GREEN	L.FURNESS
B	03/04/2025	TP	L.GREEN	L.FURNESS
C	29/08/2025	TP	L.GREEN	L.FURNESS
D	31/10/2025	STG 2	L.GREEN	L.FURNESS

60-70 PARK STREET, SOUTH MELBOURNE
PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

DRAWINGS BY: DKO Architects

FILE NAME: G35716-01
SHEET NO.: 05

SCALE: 1:200 (A3)

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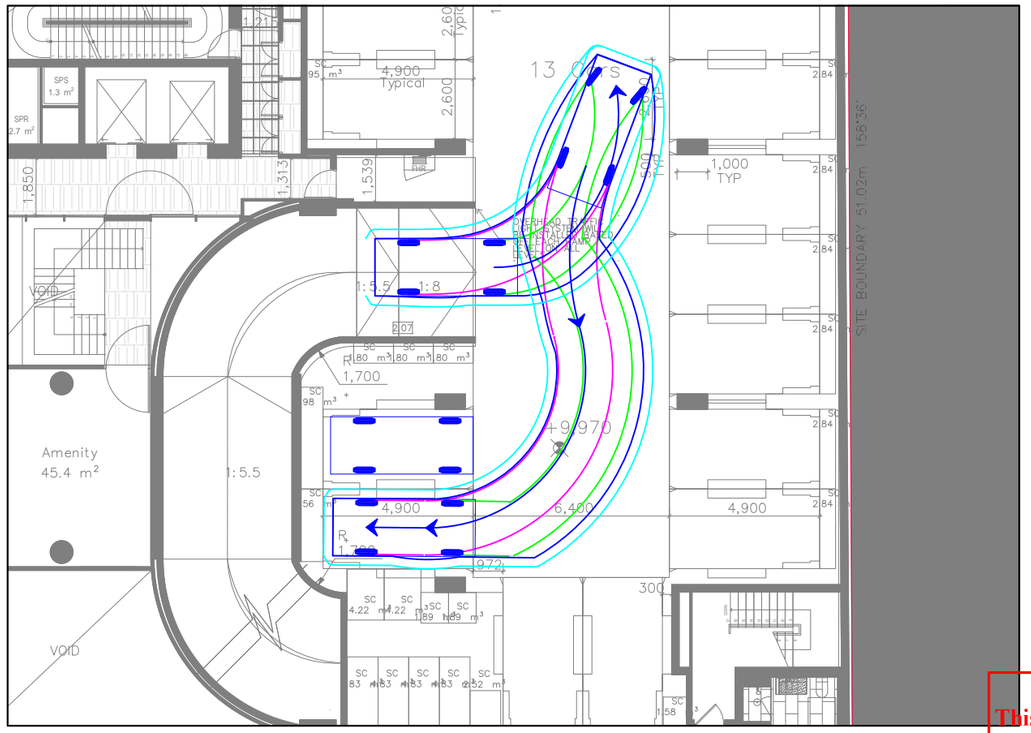
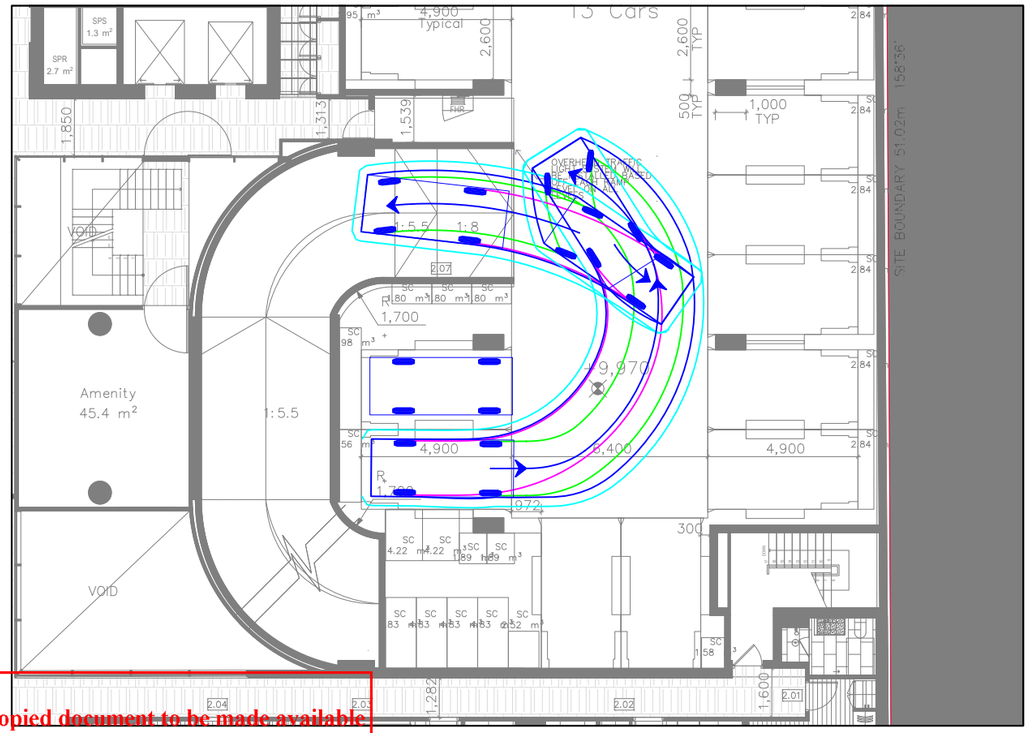
CAR SPACE 03 - INGRESS



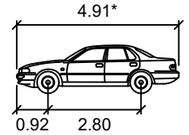
CAR SPACE 03 - EGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



85th percentile
(AS/NZS 2890.1:2004)

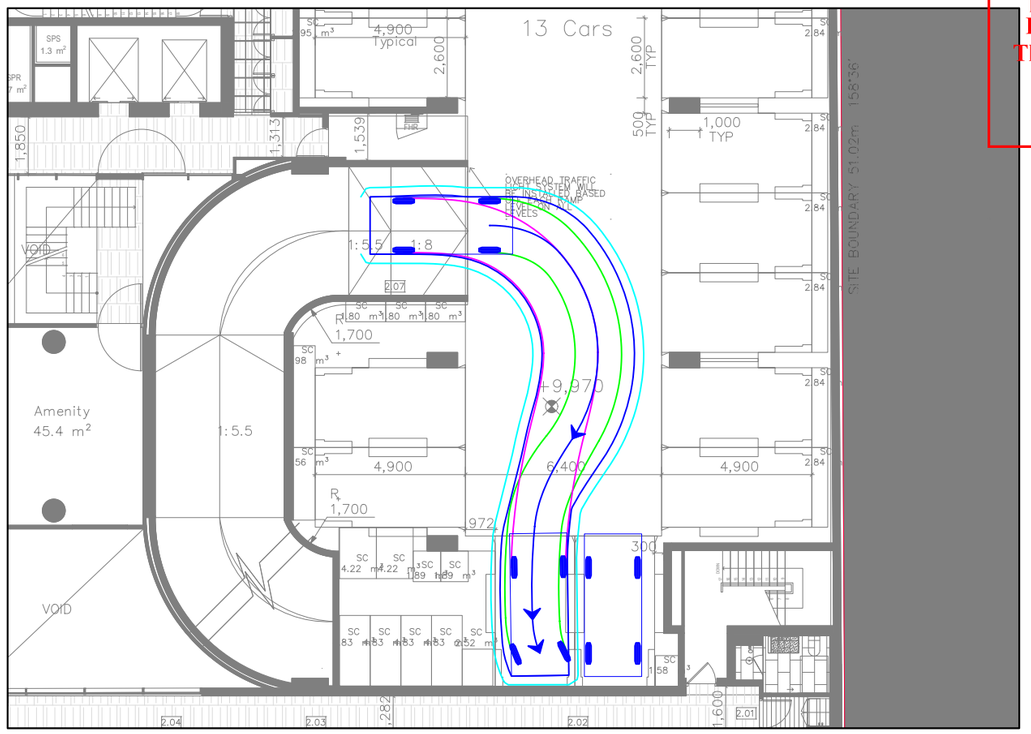
Width	:	1.87m
Track	:	1.77m
Kerb to Kerb Radius	:	11.5m

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

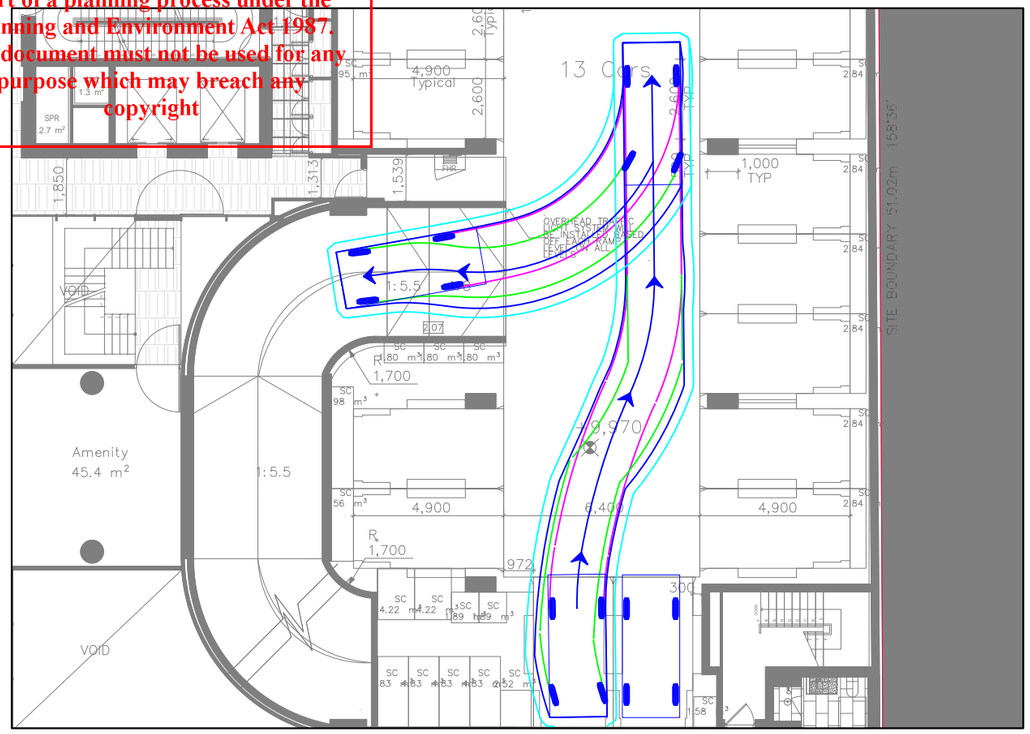
LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

CAR SPACE 04 - INGRESS



CAR SPACE 04 - EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	19/12/2024	TP	L.GREEN	L.FURNESS
B	03/04/2025	TP	L.GREEN	L.FURNESS
C	29/08/2025	TP	L.GREEN	L.FURNESS
D	31/10/2025	STG 2	L.GREEN	L.FURNESS

60-70 PARK STREET, SOUTH MELBOURNE
PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

DRAWINGS BY: DKO Architects

FILE NAME: G35716-01
SHEET NO.: 06

N

SCALE: 1:200 (A3)
0 2 4

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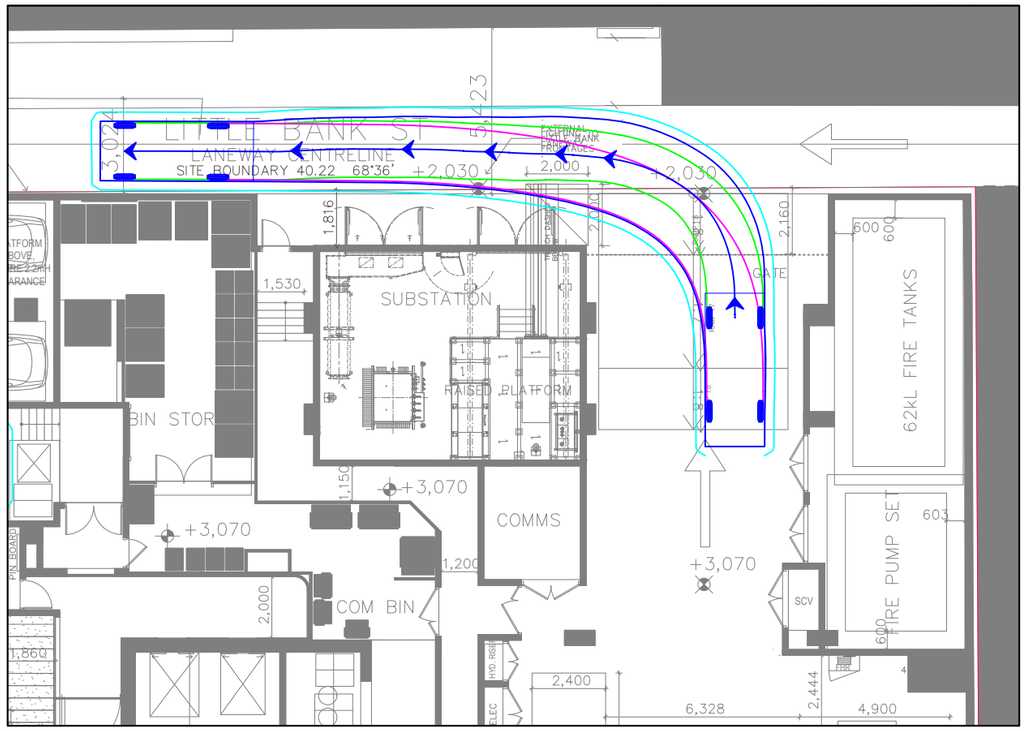
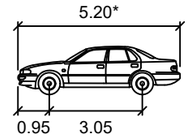
B99 EGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



99th percentile
(AS/NZS 2890.1:2004)

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

LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	04/03/2025	TP	L.GREEN	L.FURNESS
B	03/04/2025	TP	L.GREEN	L.FURNESS

60-70 PARK STREET, SOUTH MELBOUNRE
PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

BASE INFORMATION FROM: TP805 Ground Floor Plan.dwg
DRAWINGS BY: DKO Architects

FILE NAME: G35716-01
SHEET NO.: 07

N

SCALE: 1:200 (A3)

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