

TRANSPORT IMPACT ASSESSMENT

3–5 Help Street, Chatswood

PREPARED FOR:

Australia Oriental Chatswood Development Pty Ltd

REFERENCE:

0650r06v02

DATE:

19/05/2026



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ABN: 53 689 859 756

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Table of Contents

1. Introduction	3
1.1. Overview	3
1.2. Previous SSDA Approval	3
1.3. Structure of this Report	3
1.4. References	4
2. Existing Conditions	5
2.1. Location and Site	5
2.2. Road Network	5
2.3. Public Transport	9
2.4. Active Transport	12
2.5. Crash History	14
2.6. Approved Traffic Generation	16
3. Development Proposal	17
4. Parking Requirements	18
4.1. Car Parking	18
4.2. Accessible Car Parking	20
4.3. Motorcycle Parking	20
4.4. Bicycle Parking	21
4.5. Service Vehicle Parking & Waste Collection	22
5. Traffic Impacts	23
5.1. Traffic Generation Rates	23
5.2. Traffic Generation of the Proposed Development	23
6. Design Aspects	25
6.1. Access	25
6.2. Internal Design	25
7. Conclusions	26

List of Figures

Figure 1: Site Plan	7
Figure 2: Location & Road Hierarchy Plan	8
Figure 3: Public Transport Services	11
Figure 4: Active Transport Network	13
Figure 5: Crash Hotspot	15

List of Tables

Table 1: Street Frontages & Neighbouring Developments	5
Table 2: Bus Services	9
Table 3: Rail & Metro Services	10
Table 4: Crash Hotspots	14
Table 5: Traffic Generation of the Approved Development	16
Table 6: Residential Car Parking Requirements and Provision	18
Table 7: Commercial Car Parking Requirements & Provision	20
Table 8: Motorcycle Parking Requirements & Provision	21
Table 9: Bicycle Parking Requirements & Provision	21
Table 10: Total Traffic Generation of Development	24

Appendices

Appendix A	Architectural Drawings
Appendix B	Swept Path Analysis Drawings

1. Introduction

1.1. Overview

PDC Consultants has been commissioned by Australia Oriental Chatswood Development Pty Ltd to undertake a transport impact assessment (TIA) for a S4.55 Modification Application (S4.55 Application) of State Significant Development Application (SSDA) 76555711, which relates to a proposed mixed-use development with infill affordable housing at 3–5 Help Street, Chatswood. Specifically, the S4.55 Application proposal consists of:

- A decrease from 160 to 143 apartment units (- 17 units).
- An increase from 1,959 m² to 2,003 m² commercial gross floor area (GFA) (+ 44 m²).
- A decrease from 363 m² to 354 m² of retail GFA (- 9 m²).
- An increase from 166 parking spaces to 206 parking spaces (+ 40 spaces).

The site is located in Willoughby City Council (Council) local government area (LGA) and has therefore been assessed in accordance with the Willoughby Development Control Plan (DCP) 2023 and Local Environmental Plan 2012. It has also been assessed in accordance with the State Environmental Planning Policy (Housing) 2021.

1.2. Previous SSDA Approval

The previous approved SSDA was determined on 28 November 2025 and comprised the following:

- 160 apartment units, including 20% affordable units (32 units).
- 1,959 m² of commercial gross floor area (GFA).
- 363 m² of retail GFA.
- Basement parking with a total of 166 car spaces.
- An 11-metre-wide combined entry and exit driveway onto Help Street.

1.3. Structure of this Report

This report documents the findings of our investigations in relation to the anticipated traffic and parking impacts of the proposed development and should be read in the context of the Environmental Impact Statement (EIS), prepared separately. The remainder of this report is structured as follows:

- Section 2: Describes the site and existing traffic and parking conditions in the locality.
- Section 3: Describes the proposed development.
- Section 4: Assesses the parking requirements of the development.

- Section 5: Assesses the traffic impacts of the development.
- Section 6: Discusses the proposed access and internal design arrangements.
- Section 7: Presents the overall study conclusions.

1.4. References

In preparing this report, reference has been made to the following guidelines / standards:

- Willoughby Local Environmental Plan 2012 (WLEP 2012).
- Willoughby Development Control Plan 2023 (WDCP 2023).
- Willoughby Street Parking Strategy 2017 (Street Parking Strategy).
- Chatswood CBD Planning and Urban Design Strategy 2036 (Chatswood CBD Strategy 2036).
- State Environmental Planning Policy (Transport & Infrastructure) 2021 (SEPP T&I 2021).
- State Environmental Planning Policy (Housing) 2021 (SEPP Housing).
- NSW Apartment Design Guide (ADG).
- Transport for NSW Guide to Transport Impact Assessment 2024 (GTIA).
- Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, 2013 (Integrated Public Transport Planning Guidelines 2013).
- Australian Standard AS 2890.1-2004, Part 1: Off-Street Car Parking (AS 2890.1).
- Australian Standard AS 2890.2-2018, Part 2: Off-Street Commercial Vehicle Facilities (AS 2890.2).
- Australian Standard AS 2890.3-2015, Part 3: Bicycle Parking (AS 2890.3).
- Australian Standard AS 2890.6-2022, Part 6: Off-Street Parking for People with Disabilities (AS 2890.6).

2. Existing Conditions

2.1. Location and Site

The site is located at 3–5 Help Street, Chatswood, being approximately 300 metres north of Chatswood Railway Station and 9 kilometres north-west of the Sydney CBD. More specifically, the site is located on the northern side of Help Street between its intersections with Cambridge Lane to the west and Anderson Street to the east.

The site is generally trapezoidal in shape with a total area of approximately 2,290 m². **Table 1** provides an appreciation of the site's street frontages and neighbouring developments.

Table 1: Street Frontages & Neighbouring Developments

FRONTAGE	DESCRIPTION
North	Street frontage: McIntosh Street
South	Street frontage: Help Street
East	Borders neighbouring residential flat buildings
West	Street frontage: Cambridge Lane

The site currently accommodates two separate three-storey residential flat buildings, comprising a combined total of 57 residential units along with associated on-site car parking. Two separate driveways are currently provided for said residential flat buildings, onto Help Street and McIntosh Street respectively. Traffic generated by the existing development would therefore use both streets for access to and from the local road network.

Figure 1 and **Figure 2** provide an appreciation of the site's location in both a local and broad context respectively.

2.2. Road Network

The road hierarchy in the vicinity of the site is shown by **Figure 2**, with the following roads considered noteworthy:

- **Pacific Highway:** forms part of the TfNSW Highway, HW 10, that generally runs in a north–south alignment through the Sydney Metropolitan area. Near the site, it is subject to 60 km/h speed zoning restrictions and accommodates three lanes of traffic in each direction within a divided carriageway. 'No-stopping' restrictions apply to both kerbsides of Pacific Highway near the site.
- **Help Street:** a local road that runs in an east-west direction between Anderson Street at the east and Pacific Highway at the west. Near the site, it is subject to 40 km/h speed zoning restrictions and accommodates two lanes of traffic in each direction. A combination of time restricted parallel parking and 'No Stopping' parking restrictions apply near the site.
- **Anderson Street:** a local road that runs in a north-south direction, between its intersections with Ashley Street at the north and Victoria Avenue at the south. Near the site, Anderson Street is subject to 40 km/h speed

zoning restrictions and accommodates one to two lanes of traffic in each direction. A combination of time restricted parallel parking and 'No Stopping' parking restrictions apply near the site.

- **Cambridge Lane:** a local road that runs in a north-south direction between McIntosh Street at the north and Help Street at the south. Near the site, Cambridge Lane functions as a shared zone for cars, cyclists and pedestrians and is subject to 10 km/h speed zoning restrictions. Cambridge Lane is one-way northbound only and accommodates a single lane of traffic. Kerbside parking is permitted along the western kerbside subject to 10-minute time restriction between 7am and 6pm, Monday to Friday.
- **McIntosh Street:** a local road that runs in an east-west direction between Anderson Street at the east and Cambridge Lane at the west. Near the site, McIntosh Street is subject to 40 km/h speed zoning restrictions and accommodates a single lane of traffic, one-way eastbound only. Kerbside parking is permitted along the northern side of the street, subject to 1P time restriction between 8:30am and 6pm, Monday to Friday and 8:30am and 12pm on Saturday.
- **Orchard Road:** a local road that runs in a north-south direction between Help Street at the north and its termination in the south. Near the site, it is subject to 40 km/h speed zoning restrictions and accommodates a single lane of traffic in each direction. Kerbside parking is prohibited on both sides.
- **Railway Street:** a local road that runs in a north-south direction between Help Street at the north and its termination in the south. Near the site, it is subject to 40 km/h speed zoning restrictions and accommodates two lanes of traffic in each direction. A combination of time restricted parallel parking and 'No Stopping' parking restrictions operate near the site.

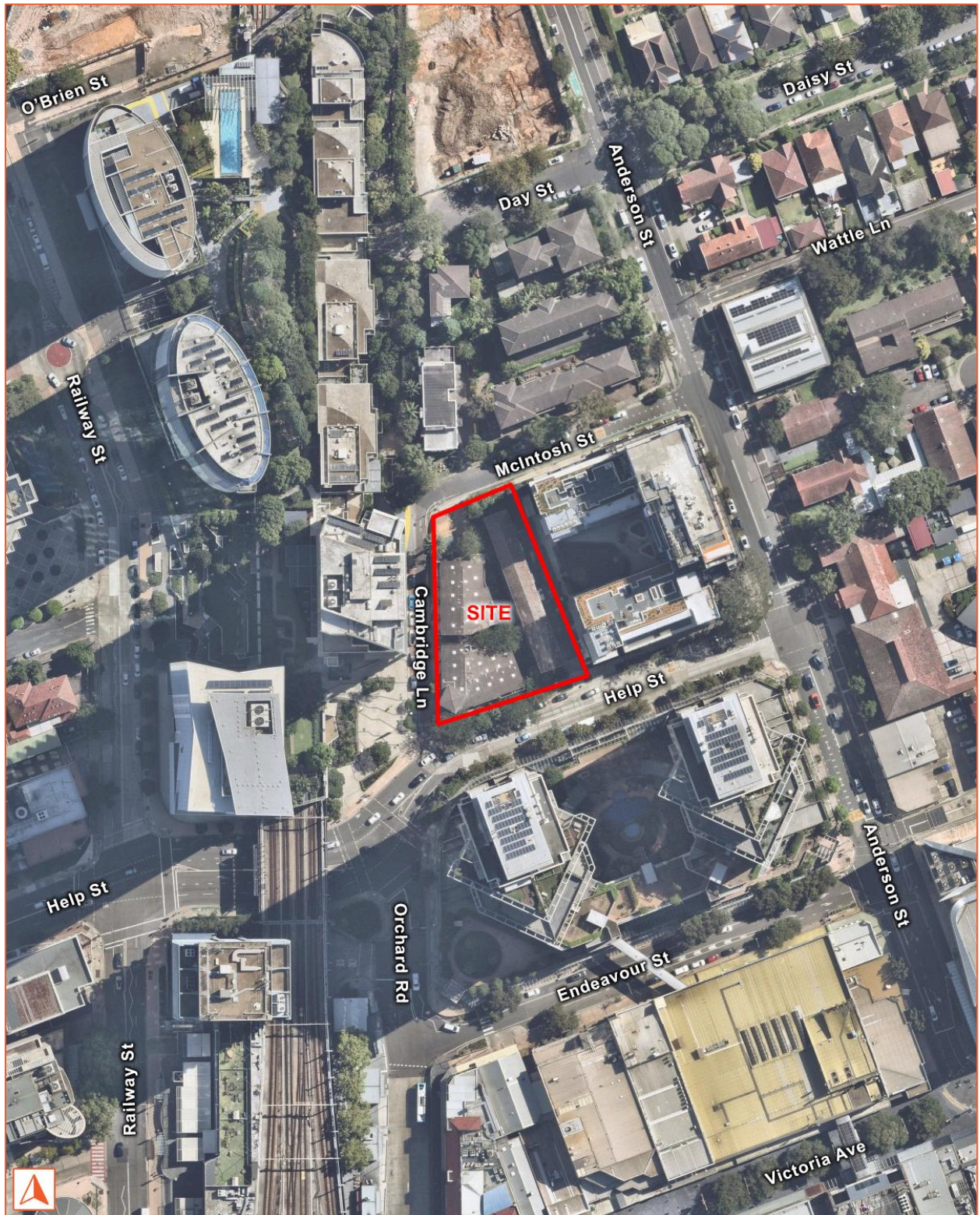


Figure 1: Site Plan

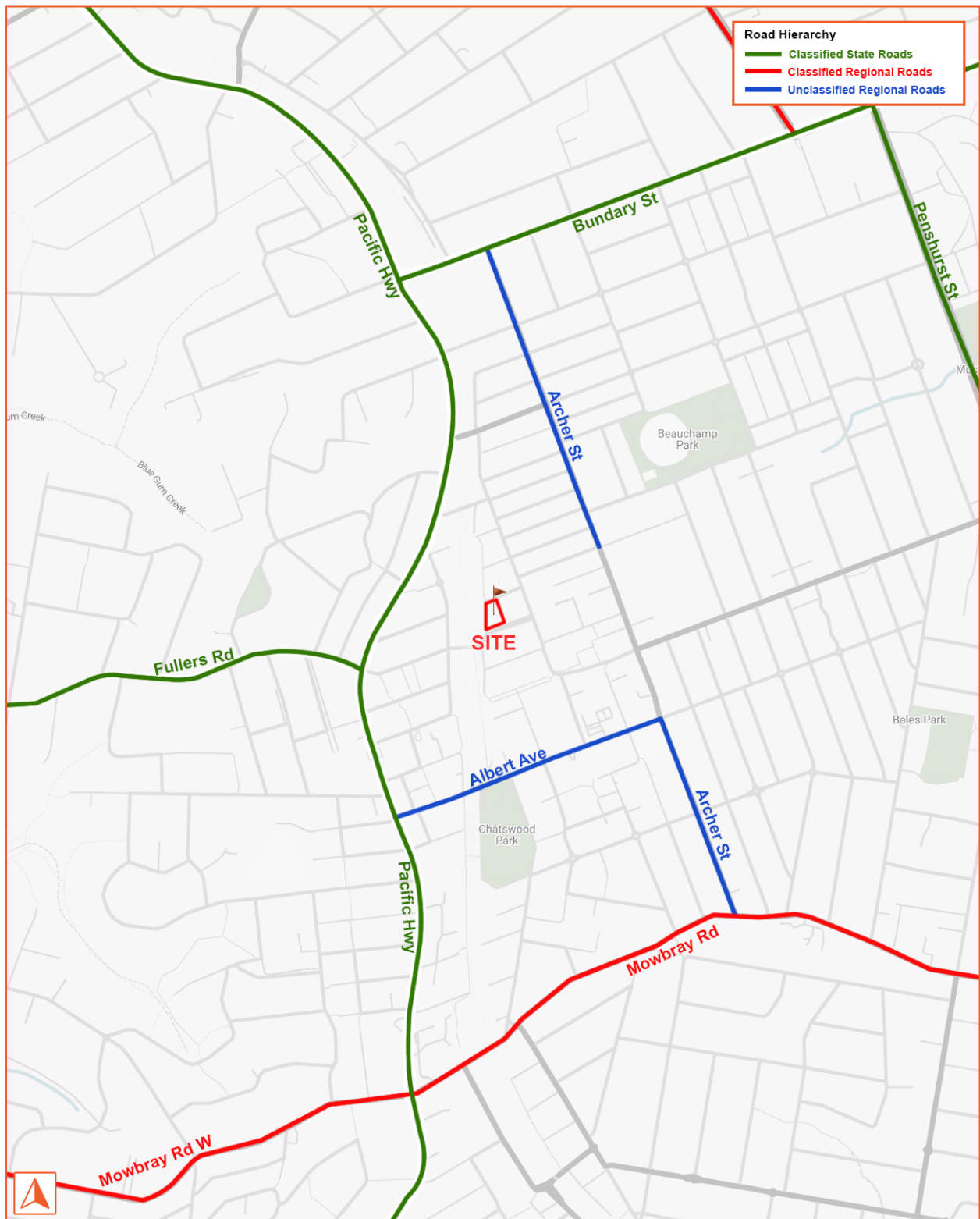


Figure 2: Location & Road Hierarchy Plan

2.3. Public Transport

2.3.1. Bus Services

The Integrated Public Transport Planning Guidelines 2013 states that the walking catchment for metropolitan bus services includes all areas within a 400-metre radius of a bus stop. As can be seen from **Figure 3**, the site is located within 400 metres of bus stops provided at the Chatswood interchange and on Anderson Street and hence falls well within the walking catchment area. Accordingly, residents, visitors and staff will have convenient access to public bus services for journeys to and from the site.

Table 2 shows the notable town centres that are accessible via the abovementioned bus services and the average service headways during peak and off-peak periods.

Table 2: Bus Services

ROUTE NO.	ROUTE	ROUTE DESCRIPTION	AVERAGE HEADWAY
115	Chatswood to City Bridge St via North Sydney	Via North Willoughby, Willoughby, Crows Nest, North Sydney, Milsons Point, Millers Point	Weekdays: 10 – 15 minutes Weekends: 20 minutes
120	Chatswood to City QVB (Loop Service)	Via North Willoughby, Willoughby, Crows Nest, North Sydney, Milsons Point, Millers Point	Weekdays: 10 – 15 minutes Weekends: 10-15 minutes
255	Colwell Cres & Beaconsfield Rd to Chatswood	-	Weekdays: 8 Services only Weekends: 4 Services only on Saturday/ No Services on Sunday
256	Chatswood to Chatswood West (Loop Service)	-	Weekdays: 1 – 2 hours Weekends: 5 Services only on Saturday/ No Services on Sunday
267	Chatswood to Greenwich via Crows Nest	Via Willoughby, Cammeray, Crows Nest	Weekdays: 30 – 60 minutes Weekends: 1 hour
275	Castlecrag to Chatswood	Via Willoughby East, Middle Cove, North Willoughby	Weekdays: 4 Services Only Weekends: 4 Services Only on Saturdays / No Services on Sundays
277	Castle Cove to Chatswood	-	Weekdays: 1 hour Weekends: 6 Services only
278	Chatswood to Killarney Heights (Loop Service)	Via Roseville Chase, Forestville	Weekdays: 30 minutes Weekends: 20 – 30 minutes
279	Frenchs Forest to Chatswood	Via Forestville, Roseville Chase	Weekdays: 4 Services Only Weekends: No Services
280	Warringah Mall to Chatswood	Via North Manly, Frenchs Forest, Forestville, Roseville Chase	Weekdays: 30 minutes Weekends: 30 minutes
281	Davidson to Chatswood	Via Frenchs Forest, Forestville, Roseville Chase	Weekdays: 1 hour Weekends: 1 hour
283	Belrose to Chatswood	Via Frenchs Forest, Forestville, Roseville Chase	Weekdays: 1 hour Weekends: 1 hour
284	Duffys Forest to Terrey Hills & Chatswood	Via Terrey Hills, Belrose, Frenchs Forest, Forestville, Roseville Chase	Weekdays: 1 hour Weekends: 2 hour
516	Top Ryde City to Chatswood	Via North Ryde, Chatswood West	Weekdays: 30 minutes

ROUTE NO.	ROUTE	ROUTE DESCRIPTION	AVERAGE HEADWAY
			Weekends: 30 minutes
530	Burwood to Chatswood	Via Five Dock, Rusell Lea, Drummoyne, Huntleys Point, Hunters Hill, Linley Point, Lane Cove	Weekdays: 30 minutes Weekends: 30 minutes
558	Chatswood to Lindfield	Via Roseville	Weekdays: 1 hour Weekends: 5 Services Only on Saturdays / No Services on Sundays
565	Chatswood to Macquarie University	Via Lindfield	Weekdays: 30 minutes Weekends: 1 hour

2.3.2. Rail & Metro Services

The Integrated Public Transport Planning Guidelines 2013 states that the walking catchment for metropolitan railway stations includes all areas within an 800-metre radius of a station. It can be seen from **Figure 3** that Chatswood Railway Station is located approximately 300 metres south of the site and hence falls within the typical walking catchment area. Accordingly, residents, visitors and staff of the proposed development would be able to readily access the Sydney rail network.

Chatswood Railway Station is a major train and Metro station in the north of Sydney, serviced by two railway lines and two Metro lines, being the T1 North Shore and Western Line, T9 Northern Line, Metro North West Line and Metro City & Southwest Line.

Table 3 shows the notable town centres that are accessible along these lines and the average service headways during peak and off-peak periods.

Table 3: Rail & Metro Services

RAILWAY LINE	NOTABLE TOWN CENTRES ALONG LINE	AVERAGE HEADWAY
T1 North Shore and Western Line	Via Sydney CBD, Townhall, Wynyard, North Sydney, Chatswood, Lindfield, Gordon, Hornsby, Berowra	Weekdays: 5 - 15 minutes Weekends: 5 - 15 minutes
T9 Northern Line	Via Hornsby, Epping, Strathfield, Redfern & Sydney CBD	Weekdays: 5 - 15 minutes Weekends: 5 - 15 minutes
Metro North West & Bankstown Line	Via Rouse Hill, Kellyville, Bella Vista, Baulkham Hills, Castle Hill, Cherrybrook, Epping, Macquarie Park, North Ryde, Chatswood, Crows Nest, Victoria Cross, Barangaroo, Wynyard, Martin Place, Gadigal, Waterloo & Sydenham	Weekdays: 5 - 10 minutes Weekends: 10 minutes

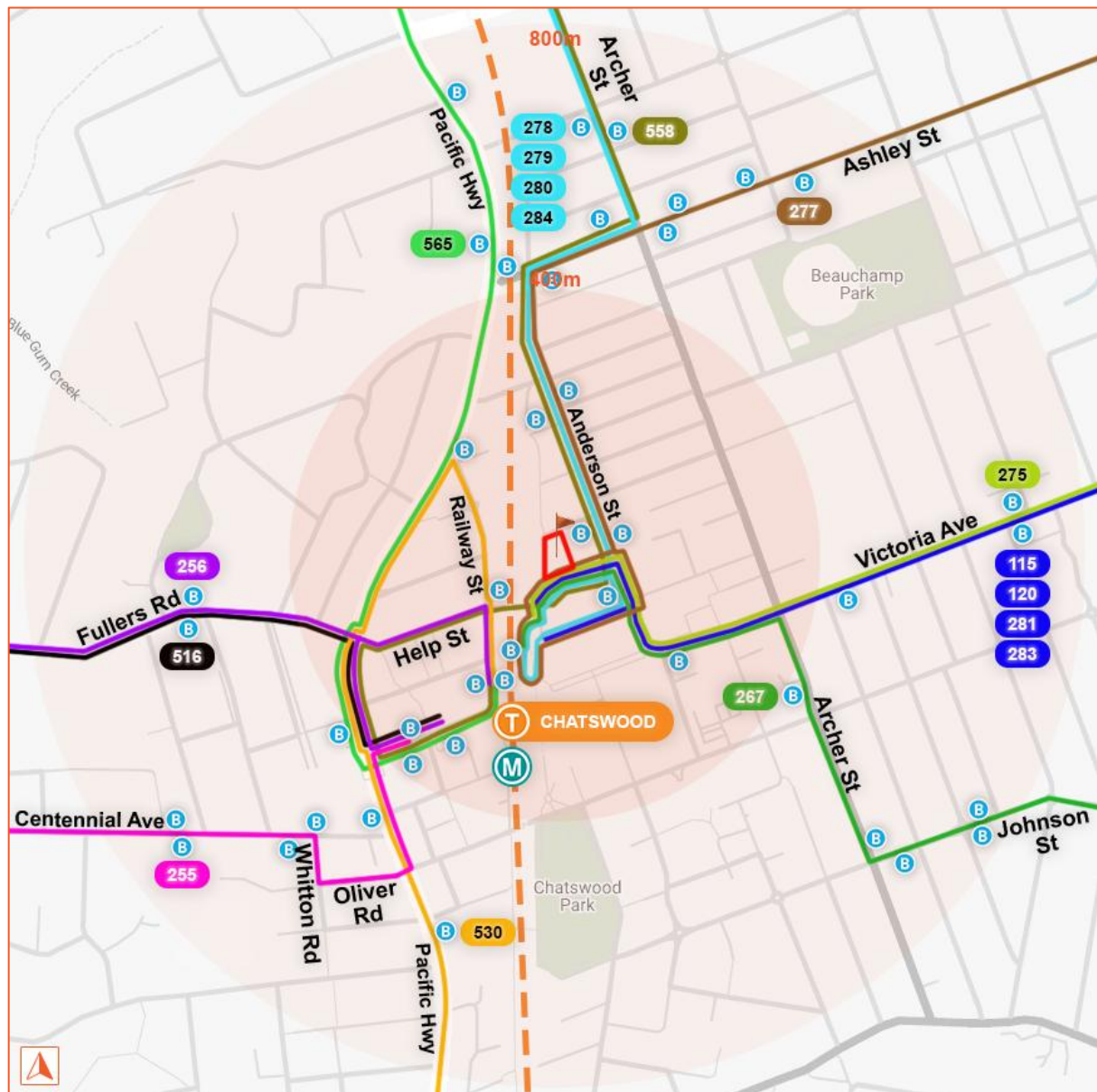


Figure 3: Public Transport Services

2.4. Active Transport

2.4.1. Cycle Network

Figure 4 illustrates the 10-minute cycling catchment area and dedicated cycle routes near the site. It demonstrates that the site has excellent access to the local bicycle network, with on-road cycle paths provided along Cambridge Lane and McIntosh Street.

Several key destinations can be accessed from the proposed development by bicycle, including large-scale supermarkets and shopping centres, bulky goods retail stores, food and beverage premises, public transport services, and a range of recreational and outdoor facilities.

2.4.2. Walking Network

Figure 4 illustrates the 10-minute walking catchment area. Occupants of the development have excellent access to a similar range of facilities to those available via bicycle, including large-scale supermarkets and shopping centres, food and beverage premises, public transport services, and recreational and outdoor facilities. The nearest bus stops to the site are within around 130 metres of the site.

Pedestrian facilities are good around the site. Help Street has footpaths along both sides, whilst McIntosh Street to the west of the site operates as a 10 km/h Shared Zone. McIntosh Street to the rear of the site has footpaths along both sides and is designated as a 40 km/h High Pedestrian Activity Area, giving motorists extra awareness of pedestrians. Anderson Street also has pedestrian footpaths along both sides.

Signalised pedestrian crossings near the site include those on all three legs of the Anderson Street / Help Street intersection around 60 metres to the east of the site, and on all three legs of the Orchard Road / Help Street intersection around 40 metres to the west of the site.

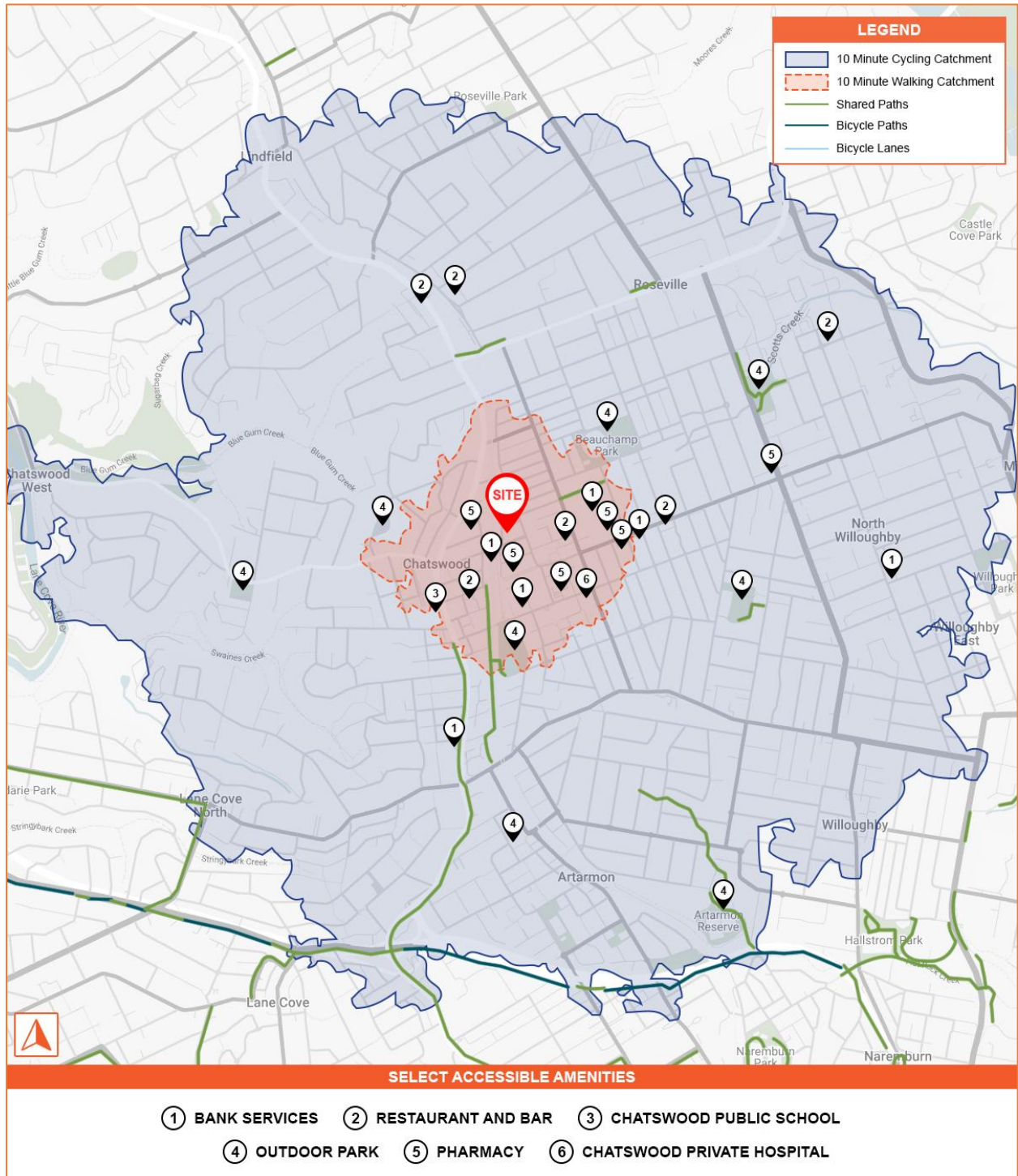


Figure 4: Active Transport Network

2.5. Crash History

An assessment of the crash history near the site has been conducted to identify any potential existing crash trends which might be affected by the proposed development. The analysis was conducted on data available from the NSW Centre for Road Safety for roads and intersections near the site. The details of reported crashes are available for the five-year period between 2020 and 2024. The information provided for each crash includes the crash type, location, year, conditions, and contributing factors.

There was a total of two crashes recorded near the site for the most recent five-year period, averaging below one crash per year. Crash locations are illustrated by **Figure 5** and further information is provided by **Table 4**.

Based on the analysis of recent crashes near the site, it has been observed that there have been two crashes in total over the most recent five-year period for which finalised data is available. One of the crashes occurred in 2024 and involved a serious injury pedestrian crash in the daylight. The other crash occurred in 2020 and involved a minor injury crash associated with a vehicle emerging from a driveway.

The number of crashes which have occurred in the immediate vicinity of the site is generally low and would not warrant the nearby roads or intersections qualifying for Black Spot funding eligibility from the Australian Government to improve safety.

Table 4: Crash Hotspots

NO.	YEAR	INJURY	RUM - code	RUM DESCRIPTION	LIGHTING
1	2024	Serious Injury	0	Ped nearside	Daylight
2	2020	Minor Injury	47	Emerging from drive	Daylight

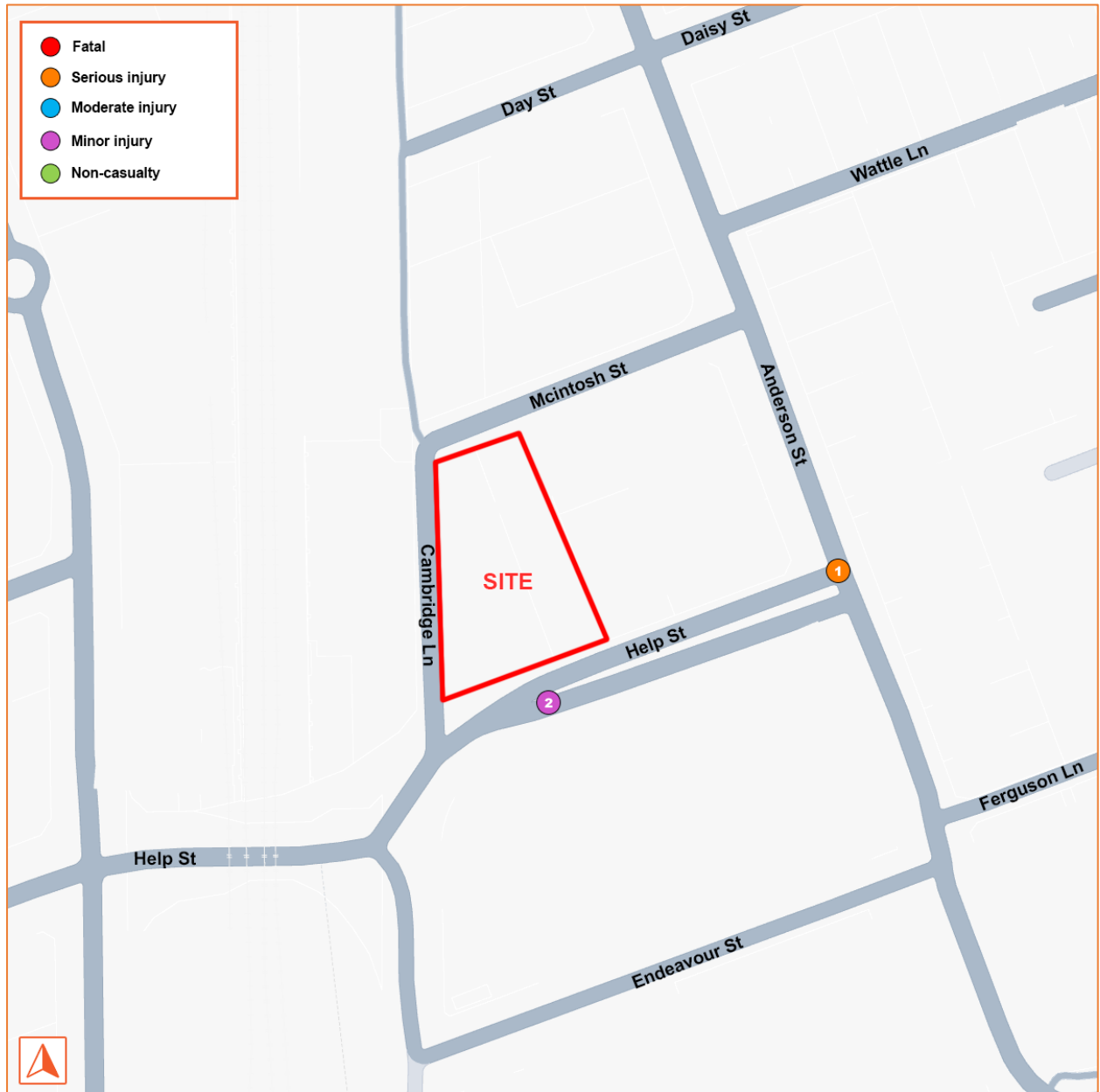


Figure 5: Crash Hotspot

2.6. Approved Traffic Generation

Table 5 assesses the private vehicle trip generation associated with the approved development as discussed in Section 1.2 based on the applicable trip generation rates outlined in the GTIA.

Table 5: Traffic Generation of the Approved Development

PERIOD	LAND USE	NO. / GFA	TRAFFIC GENERATION	TOTAL TRAFFIC GENERATION
AM	Residential	160	30	67 (34 in, 33 out)
	Commercial	1,959 m ²	33	
	Retail	363 m ²	4	
PM	Residential	160	24	57 (29 in, 28 out)
	Commercial	1,959 m ²	24	
	Retail	363 m ²	9	

It is considered that the most relevant use of the above is to determine the net change in traffic generation resulting from the proposed S4.55 Application, as is discussed later in this report.

3. Development Proposal

A detailed description of the proposed changes to the approved mixed-use development for which approval is now sought, is outlined in the EIS prepared separately. Specifically, the S4.55 Application proposal consists of:

- A decrease from 160 to 143 apartment units (- 17 units).
- An increase from 1,959 m² to 2,003 m² commercial GFA (+ 44 m²).
- A decrease from 363 m² to 354 m² of retail GFA (- 9 m²).
- An increase from 166 parking spaces to 206 parking spaces (+ 40 spaces).

The parking and traffic implications arising from the proposed development are discussed in Sections 4 and 5, respectively. A copy of the relevant architectural drawings, prepared by EMBECE, are included in **Appendix A**.

4. Parking Requirements

4.1. Car Parking

4.1.1. Residential

Given the SSDA proposes mixed-use with infill affordable housing, SEPP Housing forms the relevant car parking planning control for the residential component of the proposed development.

The mixed-use development relies upon a floor space ratio (FSR) bonus, it therefore contains at least 15% of in-fill affordable housing. SEPP Housing will be used as a reference to determine the carparking requirements, in particular Clauses 22(A)(a) of Part 2 Division 1, which is repeated below:

(i) the following number of parking spaces for dwellings used for affordable housing—

- A. for each dwelling containing 1 bedroom—at least 0.4 parking spaces,
- B. for each dwelling containing 2 bedrooms—at least 0.5 parking spaces,
- C. for each dwelling containing at least 3 bedrooms— at least 1 parking space,

(ii) the following number of parking spaces for dwellings not used for affordable housing—

- A. for each dwelling containing 1 bedroom—at least 0.5 parking spaces,
- B. for each dwelling containing 2 bedrooms—at least 1 parking space,
- C. for each dwelling containing at least 3 bedrooms—at least 1.5 parking spaces,

Table 6 shows the minimum residential car parking requirement for the development under SEPP Housing.

Table 6: Residential Car Parking Requirements and Provision

TYPE	NO.	SEPP HOUSING RATE	SEPP HOUSING REQUIREMENT	PROPOSED PROVISION
Affordable				176 Residential 21 Visitor 197 Total
1 bedroom	17	0.4 space / dwelling	7	
2 bedrooms	15	0.5 space / dwelling	8	
3 bedrooms	0	1 space / dwelling	0	
Regular				
1 bedroom	11	0.5 space / dwelling	6	
2 bedrooms	66	1 space / dwelling	66	
3 bedrooms or more	34	1.5 space / dwelling	51	
TOTAL			138	

It is evident from **Table 6** that the development requires a minimum of 138 residential car parking spaces under SEPP Housing. In response, the development provides a total of 176 car spaces, exceeding the minimum requirement by 38 spaces. The proposed resident parking provision therefore satisfies the minimum residential car parking requirement under SEPP Housing.

The proposed car parking provision is considered appropriate in the site-specific context, having regard to the constrained nature of on-street parking within the Willoughby LGA. Council's Street Parking Strategy identifies street parking as a finite and highly contested public resource, with limited opportunity to increase kerbside parking supply. It also identifies that parking occupancy above approximately 85% represents the practical threshold beyond which users may struggle to find available spaces, resulting in vehicle circulation and additional local traffic.

Council's Street Parking Strategy identifies that *"the competition for kerbside parking space is intense, particularly in Chatswood CBD where demand far outstrips supply"*, which demonstrates how critical it is for the subject site to accommodate all car parking demand it generates without any potential for overspill to nearby streets.

Competition for kerbside parking is particularly intense within and around commercial centres, railway stations and major bus routes, with the Chatswood CBD specifically identified as an area where demand for kerbside parking far outstrips supply. The Street Parking Strategy's street parking hotspot survey also identified residential streets around Chatswood town centre with occupancy levels above 75% as parking "hotspots". This hotspot area extends approximately 15 to 20 minutes' walk from Chatswood centre and contains more than 1,500 unrestricted spaces. This further demonstrates the intense competition for kerbside parking in the area and the need to ensure that developments do not exacerbate existing limitations in kerbside parking by providing ample parking within the site.

In this context, the provision of resident parking above the minimum SEPP Housing requirement is considered a positive design response, as it reduces the likelihood of residential parking demand being displaced onto the surrounding street network. This is particularly relevant where existing on-street parking is already subject to competing demand from residents, visitors, workers and commuters. Accordingly, the proposed on-site parking provision will assist in protecting local residential amenity and maintaining the operational efficiency of the surrounding kerbside parking environment.

It is also relevant to note that residents' choice to use public transport is influenced primarily by the quality, coverage and convenience of available services, rather than by the limitation of on-site parking alone. While some residents may commute by public transport during weekdays, households may still require access to a private vehicle for social, recreational and household trips, including weekend travel to destinations not well served by public transport, grocery shopping, and trips involving bulky items.

Australian Bureau of Statistics (ABS) census data for the Statistical Area Level 3 Chatswood–Lane Cove area indicates that car ownership increases with dwelling size. The ABS data also indicates that car ownership rates for respective bedroom yield dwellings are higher than the minimum car parking rates prescribed by SEPP Housing. If adequate on-site parking is not provided, this demand may be displaced to the public street network, exacerbating existing on-street parking pressures already identified in community submissions.

SEPP Housing does not give a rate for visitor parking and so reference has been made to WDCP 2023 which advises a rate of 1 visitor space per 7 dwellings. A total of 21 visitor spaces is provided, which aligns with the WDCP 2023 and is considered acceptable.

4.1.2. Non-Residential

WDCP 2023 forms the relevant planning control for assessment of the car parking requirements of the non-residential components of the development. It stipulates minimum and maximum car parking rates for commercial and retail developments within the Chatswood CBD, and notes that any calculations resulting in fractions shall be rounded down.

Table 7 shows the car parking requirements under application of WDCP 2023 and the proposed provision in response.

Table 7: Commercial Car Parking Requirements & Provision

TYPE	GFA	WDCP 2023 MIN RATE	WDCP 2023 MAX RATE	MIN REQUIRED	MAX PERMITTED	PROPOSED PROVISION
Commercial	2,003 m ²	1.0 space / 670 m ² GFA	1.0 space / 400 m ² GFA	3	5	9
Retail	354 m ²	1.0 space / 200 m ² GFA	1.0 space / 70 m ² GFA	2	5	
TOTAL				5	10	9

It is evident from **Table 7** that the non-residential component of the development requires a minimum of five and a maximum of ten non-residential car parking spaces under WDCP 2023. In response, the development provides a total of nine non-residential car spaces, which includes seven regular car spaces plus two accessible car spaces.

The proposed non-residential car parking provision is therefore considered acceptable and will ensure that all non-residential car parking demands are accommodated on-site, with no reliance on on-street parking.

4.2. Accessible Car Parking

A total of 34 accessible/adaptable car parking spaces are provided, including 30 car spaces for residential, two for residential visitor and two for commercial. These are included within the relevant car parking calculations identified in **Table 6** and **Table 7**, to the satisfaction of WDCP 2023 and the Applicant's Access Consultant.

4.3. Motorcycle Parking

Table 8 shows the motorcycle parking requirement for the development under application of the respective motorcycle parking rates and controls in the WDCP 2023 and the proposed provision in response. It is noted that irrespective of the WDCP 2023 rates identified by **Table 8**, WDCP 2023 does separately state an absolute minimum requirement of one resident motorcycle space, one resident visitor motorcycle space, one employee motorcycle space, and one commercial visitor motorcycle space. Where the minimum requirement as calculated by the WDCP 2023 rate is rounded down to zero, the overriding minimum of one space is adopted instead. All calculations not resulting in a whole number are otherwise rounded down in accordance with WDCP 2023.

Table 8: Motorcycle Parking Requirements & Provision

LAND USE	NO.	WDCP 2023 RATE	MINIMUM REQUIREMENT	PROPOSED PROVISION
Residents	176 resident car spaces	1 space per 20 car spaces	9	11
Residential visitors	11 resident motorcycle spaces	1 space per 10 resident motorcycle spaces	1 ¹	4
Business zones	9 business car spaces	1 space per 20 car spaces	1 ¹	1
Business zones visitors	1 business motorcycle space	1 space per 10 resident motorcycle spaces	1 ¹	1
TOTAL			12	17

¹ Requirement to the rate would round down to zero and so the overriding minimum requirement for one space is adopted.

Table 8 shows that the development requires a minimum of 12 motorcycle parking spaces under the WDCP 2023. In response, the development provides 17 motorcycle spaces and therefore complies with WDCP 2023.

4.4. Bicycle Parking

Table 9 shows the bicycle parking requirement for the development under application of the respective bicycle parking rate in the WDCP 2023 and the proposed provision in response.

Table 9: Bicycle Parking Requirements & Provision

LAND USE	NO.	WDCP 2023 RATE	MINIMUM REQUIREMENT	PROPOSED PROVISION
Residents	143 units	1 space per 10 units	14	30
Residential visitors	143 units	1 space per 10 units	14	24
Business zones	9 business car spaces	1 space per 10 car spaces	1	2
Business zones visitors	1 business bicycle space	1 space per 10 bicycle spaces (minimum 1 space)	1	2
TOTAL			30	58

It is evident from **Table 9** that the development requires a minimum of 30 bicycle parking spaces under the WDCP 2023. In response, the development provides 58 bicycle spaces, of which 34 are provided on Basement 01 for residents, commercial visitors and commercial staff, and a further 24 are provided in the form of readily accessible bicycle racks at Lower Ground level for residential visitors.

4.5. Service Vehicle Parking & Waste Collection

4.5.1. Loading Bay Arrangements

WDCP 2023 requires that *“All new major commercial, retail and industrial developments, and developments that involve substantial redevelopment with a floor area in excess of 500m² for commercial/retail developments and 1,000m² for industrial developments, must make adequate provision for off street loading and unloading facilities.”*; however, no rate for the provision of loading bays is given.

A loading area is provided on the Lower Ground Level which accommodates one 10.5-metre-long heavy rigid vehicle (HRV) loading bay (which is capable of also accommodating Council’s waste truck) and one 6.4-metre-long small rigid vehicle (SRV) loading bay. This is considered an adequate level of provision for the site and will ensure that the servicing demands of the building are accommodated on-site.

4.5.2. Waste Collection

Waste collection of the development shall be undertaken within the designated on-site loading bay, using Council’s 10.5-metre-long waste collection truck. The waste truck will enter the loading area from Help Street in a forward direction and reverse into the loading bay. Council’s waste contractor will then proceed to service waste between the truck and waste collection room. After collection, the waste truck will exit the site in a forward direction. This arrangement is considered acceptable and will ensure that waste can be collected safely and efficiently.

The proposed waste collection and service vehicle parking arrangements are therefore considered to be acceptable and will ensure that waste can be collected safely and efficiently, whilst also being consistent with comparable developments in the area.

5. Traffic Impacts

5.1. Traffic Generation Rates

5.1.1. Residential

The GTIA recommends the following traffic generation rates for high density residential developments:

- 0.19 trips / dwelling / hour during the AM peak period.
- 0.15 trips / dwelling / hour during the PM peak period.

A 20% inbound and 80% outbound split during the AM peak period is assumed, noting that most residents would leave for work in the weekday morning, and vice versa for the weekday PM peak period.

5.1.2. Non-Residential

The GTIA recommends application of the following traffic generation rates for commercial development (office blocks):

- 1.69 trips / 100 m² GFA / hour during the AM peak period.
- 1.20 trips / 100 m² GFA / hour during the PM peak period.

The GTIA recommends several different rates for different types of retail land uses. That for speciality shops have been adopted for the proposal, which recommends a weekday PM peak rate of 3.2 trips / 100 m² GLFA. It is noted that the AM peak hour for retail is different to other land uses. Some retail may not open until 11am, and as such a factor of 50% has been applied to the above rate to determine the AM peak trip rate of 1.6 trips / 100 m² GLFA.

An 80% inbound and 20% outbound split during the AM peak period is assumed for the commercial component, noting that most employees would arrive for work in the weekday morning, and vice versa for the weekday PM peak period. A 50% inbound and 50% outbound split is applied to the retail land uses during weekday AM and PM peaks, reflecting the short-term nature of trips to and from retail premises.

5.2. Traffic Generation of the Proposed Development

Table 10 shows the expected traffic generation of the proposed development under application of the traffic generation rates outlined in Section 5.1.

Table 10: Total Traffic Generation of Development

PERIOD	LAND USE	NO. / GFA	TRAFFIC GENERATION	TOTAL TRAFFIC GENERATION
AM	Residential	143	27	67 (34 in, 33 out)
	Commercial	2,003 m ²	34	
	Retail	354 m ²	6	
PM	Residential	143	21	56 (28 in, 28 out)
	Commercial	2,003 m ²	24	
	Retail	354 m ²	11	

The above is not a net increase in traffic generation resulting from the S4.55 Application, as it does not take into consideration the generation of the approved SSDA. In this regard, the net increase in traffic generation resulting from the proposed development is expected to be as follows:

- 0 vehicle trips / hour (0 in, 0 out), during the AM peak period.
- -1 vehicle trips / hour (-1 in, 0 out), during the PM peak period.

On this basis, the proposed S4.55 modification is not expected to result in any material increase in traffic generation when compared with the approved SSDA. Rather, the proposal results in no net increase during the AM peak period and a minor net decrease of one vehicle trip during the PM peak period. Accordingly, the proposed modification will not alter the traffic impacts previously assessed and approved under the SSDA and is therefore considered acceptable from a traffic generation and road network capacity perspective.

6. Design Aspects

6.1. Access

The proposed access driveway onto Help Street services the loading area on Lower Ground Level and the car parking areas on the basement levels.

With 206 car parking spaces of User Class 1A and a frontage to a local road, the proposed development requires a Category 2 Driveway under Table 3.1 of AS 2890.1, being a combined entry and exit driveway of width 6.0 to 9.0 metres. In response, the development proposes a combined entry and exit driveway of width 11 metres onto Help Street and therefore satisfies the requirements of AS 2890.1.

The proposed arrangements have also been assessed using swept path analysis which confirms compliance with AS 2890.1 and AS 2890.2, and that the proposed access arrangements will operate safely and efficiently. The results of this analysis are included in **Appendix B** for reference.

6.2. Internal Design

The proposed internal traffic circulation and parking arrangements comply with the relevant requirements of AS 2890, including the proposed:

- Parking space dimensions, grades, aisle widths, and blind aisle extensions, in accordance with Clause 2.4 of AS 2890.1.
- Internal roadway widths and grades, in accordance with Clause 2.5 of AS 2890.1.
- Design vehicle envelope required for clearance to columns, walls, and obstructions, in accordance with Clause 5.2 of AS 2890.1.
- Headroom and ground clearances, in accordance with Clause 5.3 of AS 2890.1 and Clause 4.2 of AS 2890.2.
- Loading bay dimensions, in accordance with Clause 4.2 of AS 2890.2.
- Bicycle parking arrangements, in accordance with AS 2890.3.

Critical movements, including those of the proposed loading dock, have been assessed by swept path analysis where necessary, and the parking and circulation areas of the proposed development are considered satisfactory.

It is noted that the design of the vehicle access and car parking arrangements as shown by the architectural drawings provided at **Appendix A** are considered appropriate for DA stage. Post-consent, it is likely that further refinement of the design will be required as more detail is incorporated into the drawings which will be assessed and resolved prior to the release of a Construction Certificate.

7. Conclusions

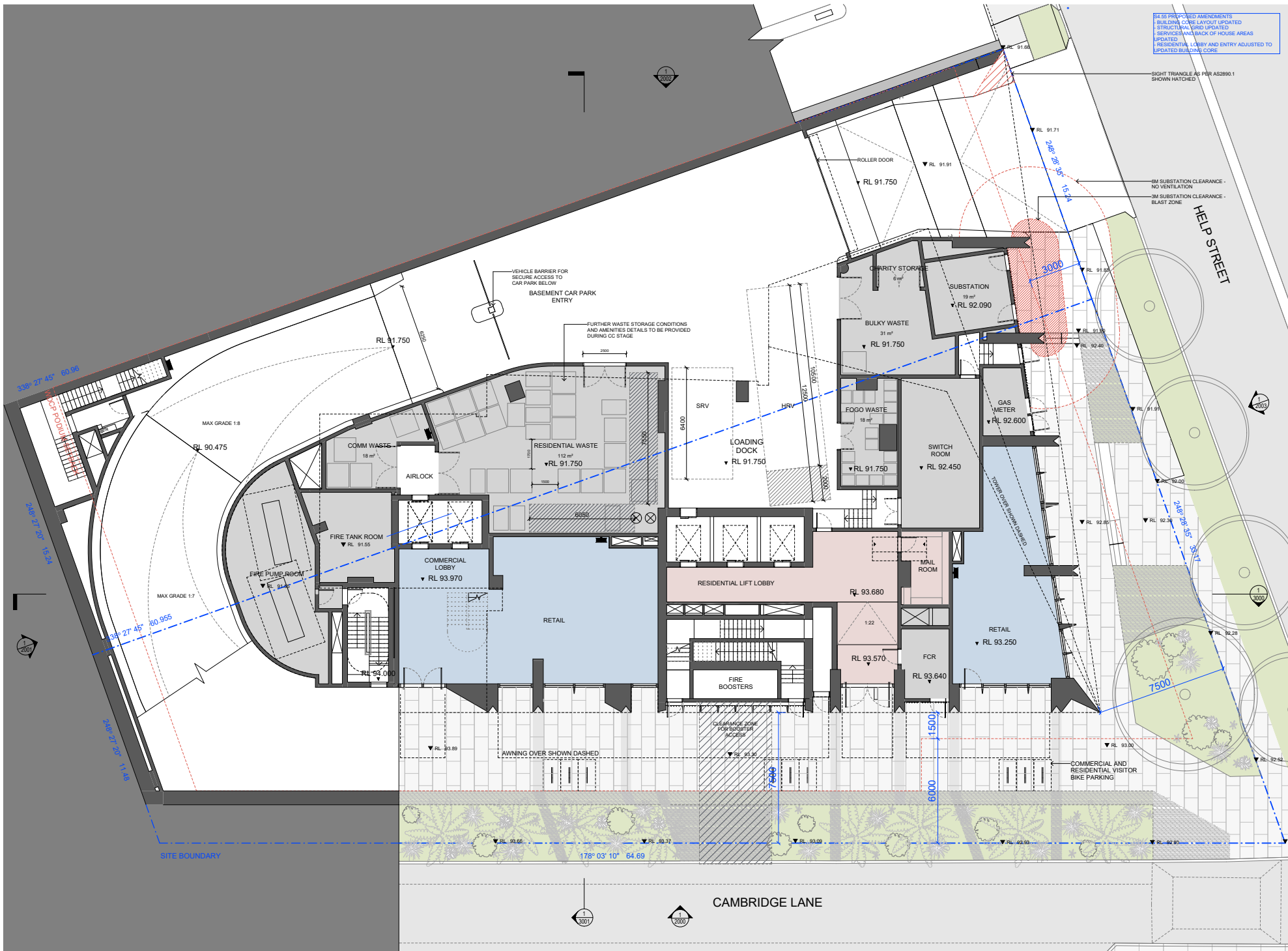
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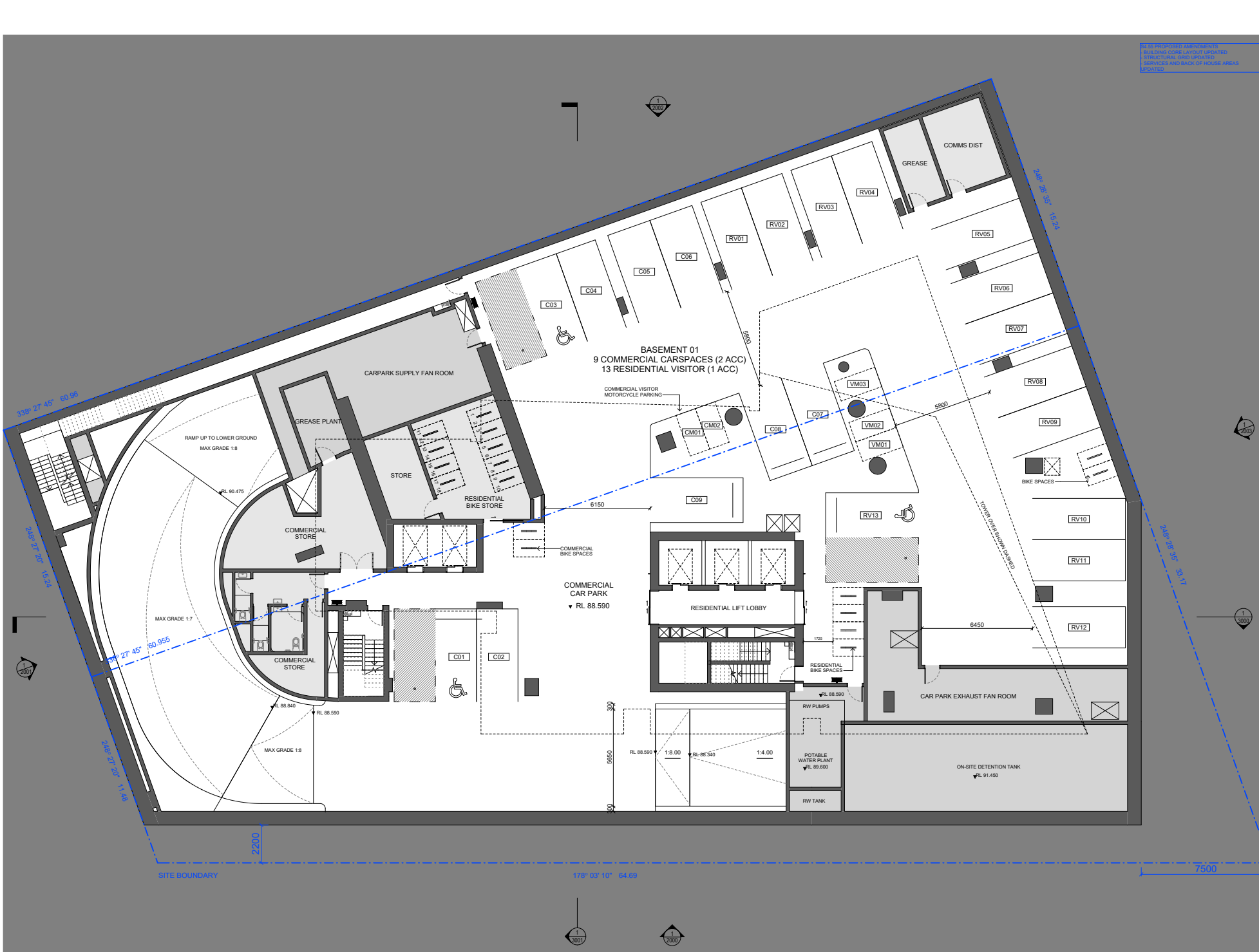
- PDC Consultants has been commissioned by Australia Oriental Chatswood Development Pty Ltd to undertake a TIA for a S4.55 Modification Application to the approved SSDA for a proposed mixed-use development with infill affordable housing at 3–5 Help Street, Chatswood. Specifically, the proposal consists of:
 - A decrease from 160 to 143 apartment units (- 17 units).
 - An increase from 1,959 m² to 2,003 m² commercial gross floor area (GFA) (+ 44 m²).
 - A decrease from 363 m² to 354 m² of retail GFA (- 9 m²).
 - An increase from 166 parking spaces to 206 parking spaces (+ 40 spaces).
- The traffic generation assessment confirms that the development will not generate additional vehicle trips during the AM peak period and one fewer vehicle trips / hour during the PM peak period compared to the approved SSDA.
- The development is required to provide a minimum of 138 resident car spaces under SEPP Housing, plus additional car parking for visitors and non-residential land uses under WDCP 2023. In response, 206 car parking spaces are provided. The proposed car parking provision is therefore considered acceptable.
- The proposed internal parking arrangements generally comply with the relevant requirements of AS 2890.1, AS 2890.2, AS 2890.3 and AS 2890.6. Any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

It is therefore concluded that the proposed development is supportable on traffic planning grounds.



Appendix A





ALL PROPOSED DIMENSIONS
BASELINE SCHE LAYOUT UPDATED
STRUCTURAL LINES UPDATED
SERVICES AND BACK OF HOUSE AREAS
UPDATED

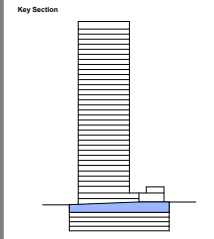
Iss.	Date	For
-	20.12.2024	For SSDA
A	12.02.2025	For SSDA
B	02.09.2025	For SSDA
C	24.04.2026	For DHPH Review
D	05.05.2026	For S4.55
E	12.05.2026	For S4.55
F	15.05.2026	For S4.55

General Notes
Verify dimensions on site prior to commencement of work. Check existing RLs on site. Advise Architect of any discrepancies before commencement. Allow for adjustments to suit discrepancies. Comply with relevant authorities requirements. Comply with Building Code of Australia requirements. Comply with relevant Australian Standards for materials and construction practice. Comply with Basic Certificate. Do not scale from drawings.

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CEC Structures Ann Estani 0415 544 020	Nathan Services Corey Munro 0437 654 141	Thermal Environmental ESD Ajan Adhikari 0403 636 390
Stanlec Civil Jackson Bramley 0421 193 028	PDC Consultants Traffic Seb Moore 0472 566 917	
Codes BCA / Access Sib Moore 0472 566 917		



Project
Help Street OIA

Project No.
26001

Address
3-5 Help Street Chatswood

Status
FOR S4.55

Drawn
RW

Authorised
MP

Date Issued
15.05.2026

Drawing
B01 Plan

Drawing No.
SSDA-1004

Scale
1 : 100 @ A1

Issue
F

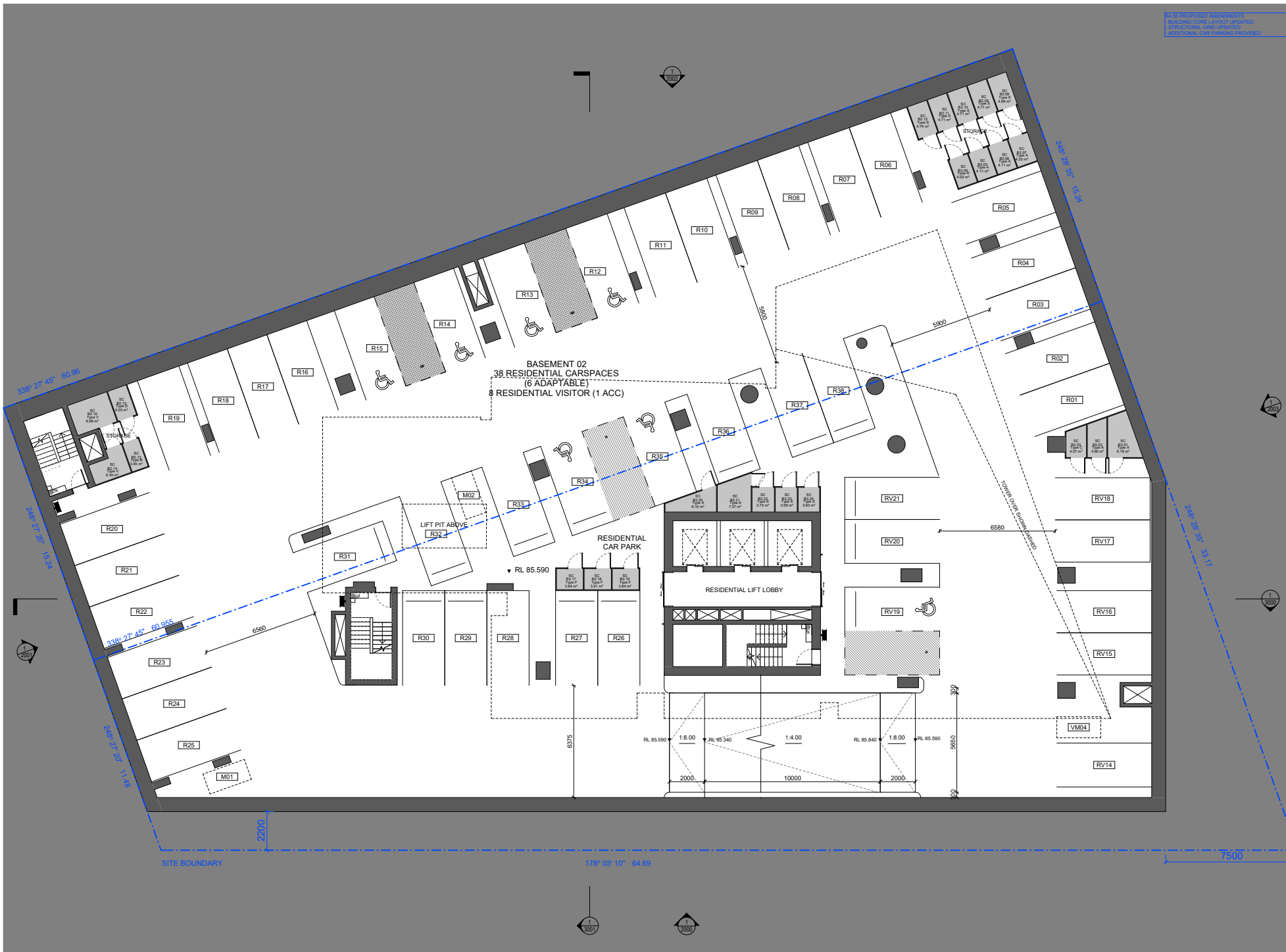
North
North

Scale
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Scale 1:100 mm

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NOT TO PROCEED WITH CONSTRUCTION
BASELINE SCHEMATIC LAYOUT
STRUCTURAL LAYOUT
ADDITIONAL CAR PARKING PROVIDED

Iss. Date For

A	20.12.2024	For SSDA
B	12.02.2025	For SSDA
C	24.04.2025	For CHPI Review
D	05.05.2025	For S4.95
E	12.05.2026	For S4.95
F	15.05.2026	For S4.95

Legend

SC Storage cage

General Notes

Verify dimensions on site prior to commencement of work. Check existing RLs on site. Advise Architect of any discrepancies before commencement. Allow for adjustments to suit discrepancies. Comply with relevant authorities requirements. Comply with Building Code of Australia requirements. Comply with relevant Australian Standards for materials and construction practice. Comply with Basic Certificate. Do not scale from drawings.

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Key Section

Project

Help Street OIA

Project No.

26001

Address

3-5 Help Street Chatswood

Status

FOR S4.95

Drawn

RW

Authorised

MP

Date issued

15.05.2026

Drawing

B02 Plan

Drawing No.

SSDA-1003

Scale

1 : 100 @ A1

Issue

E

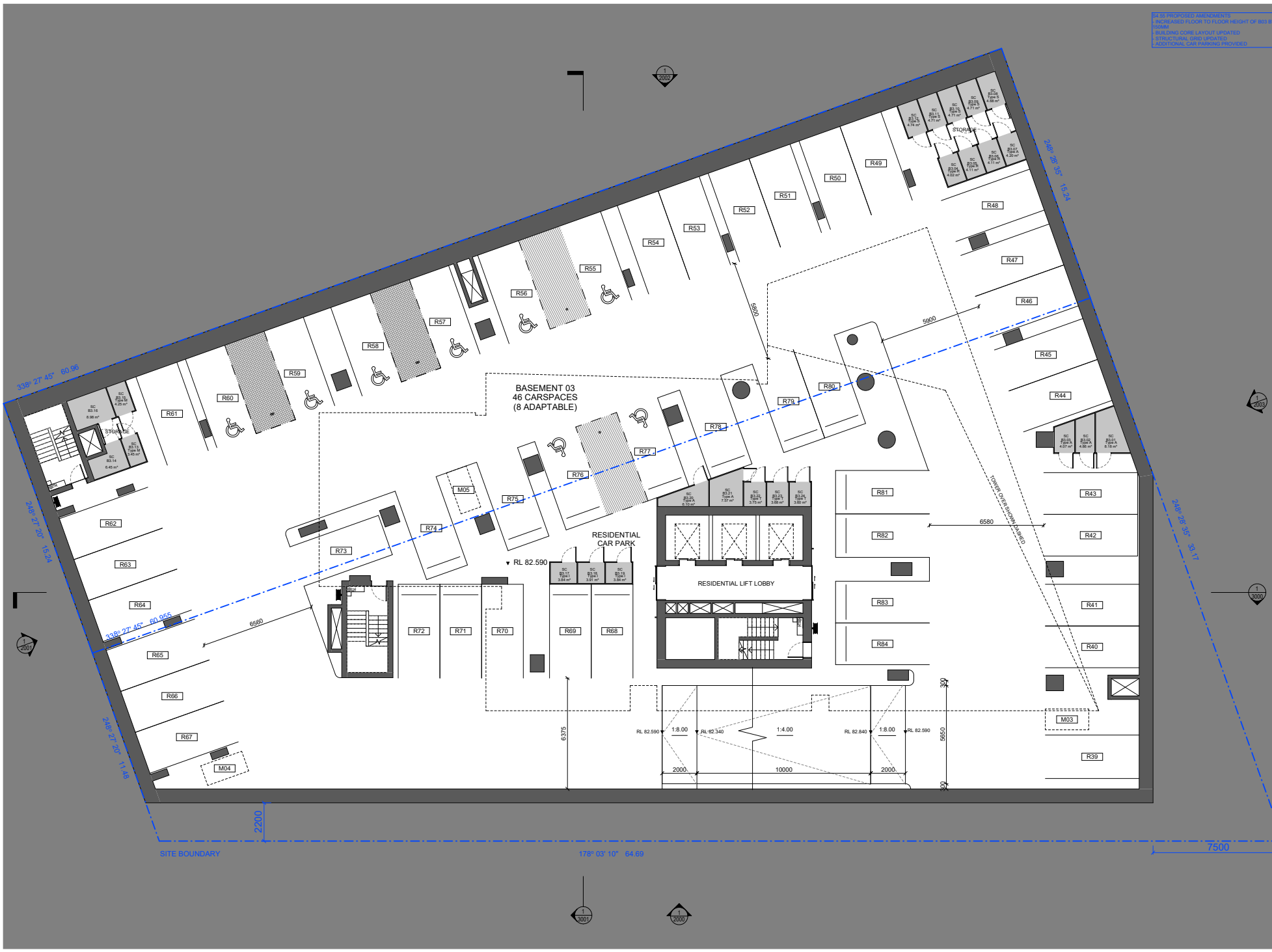
North

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Scale 1:100 mm

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NOT TO PROPOSED DIMENSIONS
ARCHIVED FLOOR TO FLOOR HEIGHT OF 803 BY 15MM
DIMENSIONAL CORRECTION LAYOUT UPDATED
STRUCTURAL LINES UPDATED
ADDITIONAL CAR PARKING PROVIDED

Iss. Date For

A	20.12.2024	For SSDA
B	12.02.2025	For SSDA
C	24.04.2025	For CHPI Review
D	05.05.2025	For S4.55
E	15.05.2025	For S4.55

Legend

SC Storage cage

General Notes

Verify dimensions on site prior to commencement of work. Check existing RLs on site. Advise Architect of any discrepancies before commencement. Allow for adjustments to suit discrepancies. Comply with relevant authorities requirements. Comply with Building Code of Australia requirements. Comply with relevant Australian Standards for materials and construction practice. Comply with Basic Certificate. Do not scale from drawings.

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0413 107 757

Codes | BCA / Access

Seb Howe
0472 568 97

Key Section

Project

Help Street OIA

Project No.

26001

Address

3-5 Help Street Chatswood

Status

FOR S4.55

Drawn

RW

Authorised

MP

Date issued

15.05.2025

Drawing

B03 Plan

Drawing No.

SSDA-1002

Scale

1 : 100 @ A1

Issue

D

North

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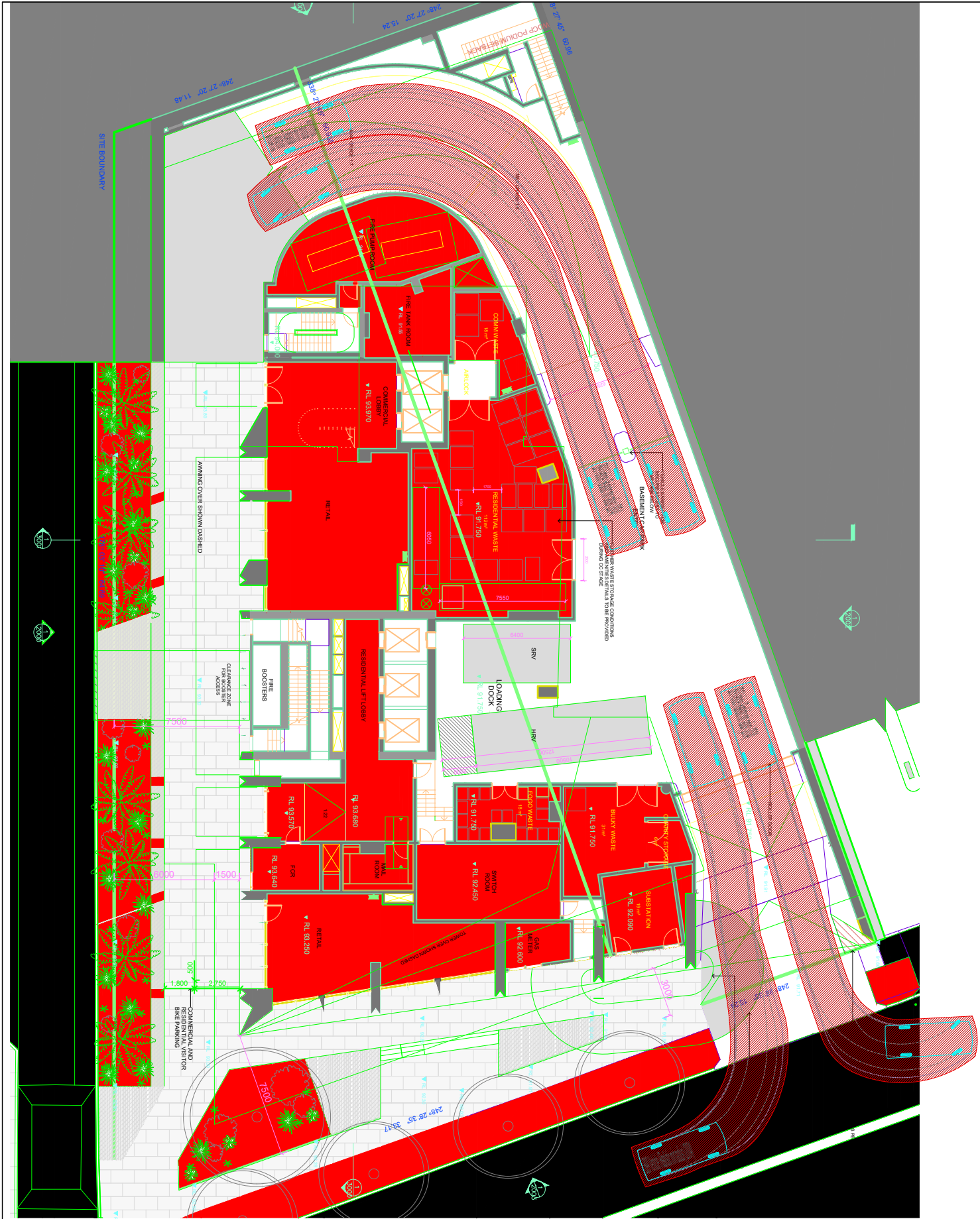
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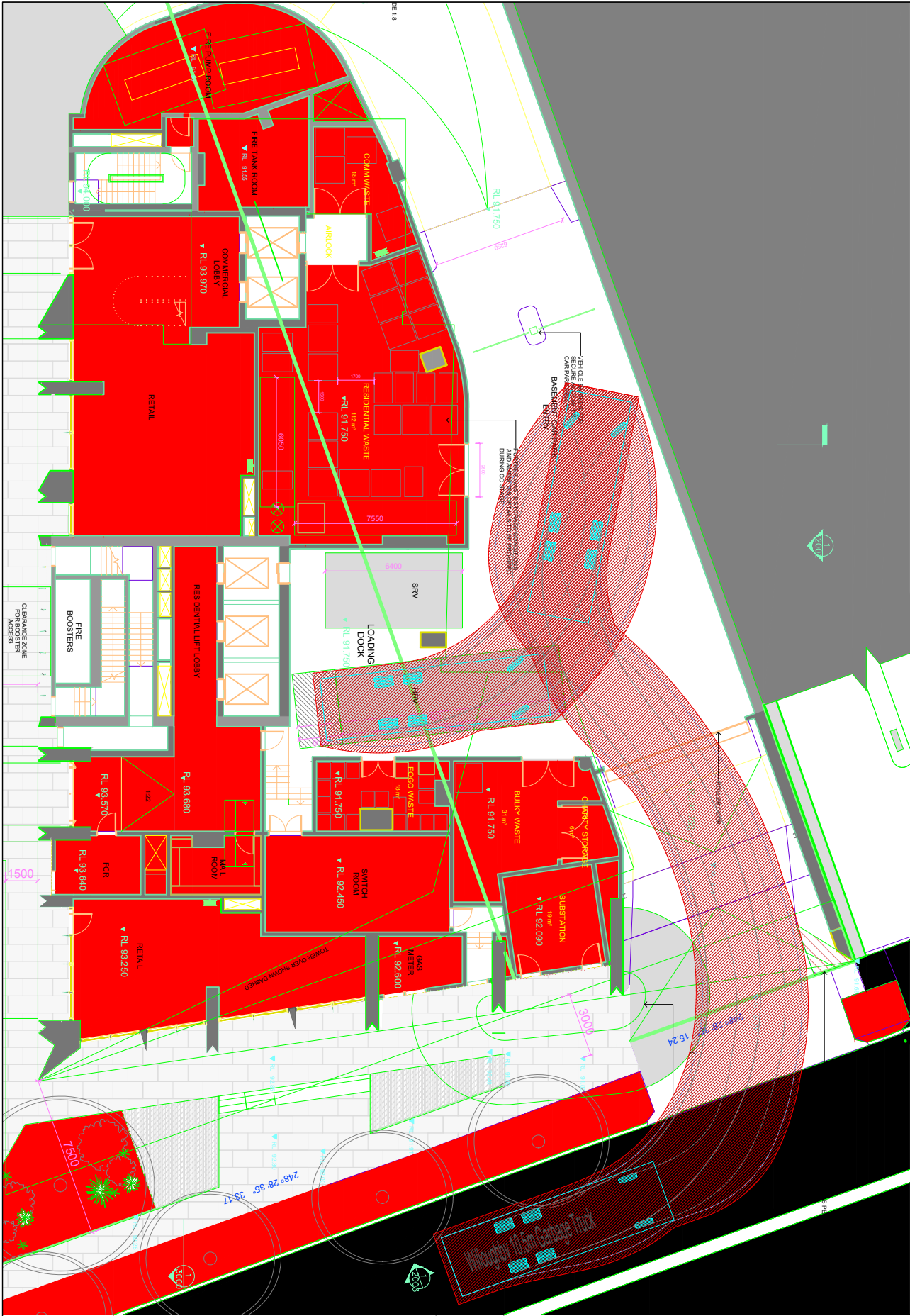
Appendix B



No.	Date	Description	Swept Path Key ----- Vehicle Wheel Path ----- Vehicle Body Envelope ----- 300mm Vehicle Clearance	North N	Drawing Prepared By CONSULTANTS	Architect EMBECE	Project 3-5 Help Street, Chatswood	Drawing Title Lower Ground Floor & Basement Level 1 B99 Design Vehicle Swept Path Analysis Site Entry / Exit & Circulation Movements	Drawing No. 001	Revision No. -
						Client Loftex Chatswood Pty Ltd	Project No 0650	Sheet Status NOT FOR CONSTRUCTION	Drawn By BM	Date 19/05/2026
Scale 1:250 @ A3 0m 2 4 6 8										



No.	Date	Description	Swept Path Key ----- Vehicle Wheel Path ----- Vehicle Body Envelope ----- 300mm Vehicle Clearance	North N	Drawing Prepared By pdccONSULTANTS	Architect EMBECE	Project 3-5 Help Street, Chatswood	Drawing Title Lower Ground Floor 1 Plan SRV Swept Path Analysis Loading Bay Entry & Exit Movements	Drawing No. 002	Revision No. -
						Client Loftex Chatswood Pty Ltd	Project No 0650	Sheet Status NOT FOR CONSTRUCTION	Drawn By BM	Date 19/05/2026
						Scale 1:250 @ A3 0m 2 4 6 8				



No.	Date	Description	Swept Path Key ----- Vehicle Wheel Path ----- Vehicle Body Envelope ----- 300mm Vehicle Clearance	North N	Drawing Prepared By pdc CONSULTANTS	Architect EMBECE	Project 3-5 Help Street, Chatswood	Drawing Title Lower Ground Floor 1 Plan Council's Waste Truck Swept Path Analysis Loading Bay Entry & Exit Movements	Drawing No. 003	Revision No. -
						Client Loftex Chatswood Pty Ltd	Project No 0650	Sheet Status NOT FOR CONSTRUCTION	Drawn By BM	Date 19/05/2026
							Scale 1:250 @ A3 0m 2 4 6 8			

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