



30 September 2024

Our Ref: 23BRT0076 RP03

EDQ Ref: DEV2023/1468

Economic Development Queensland – Development Assessment

C/- RPS

Attention: Stephen Mason

PO Box 1559

FORTITUDE VALLEY QLD 4006

Dear Stephen,

RE: 520 Beams Road, Carseldine QLD (Part of Lot 7003 on SP331690)

Proposed Change to Development Approval DEV2023/1468

Traffic Engineering Assessment

1. Background

TTM Consulting Pty Ltd (TTM) has been engaged by De Luca Corporation Pty Ltd (Applicant) to undertake a traffic engineering assessment of the above-mentioned proposed development. It is understood that this report will accompany a proposed change development application to be lodged with Economic Development Queensland (EDQ).

On 19 September 2024 Economic Development Queensland (EDQ) issued a Development Permit for a Material Change of Use for a mixed-use development over the above-mentioned land.

The approved development includes proposed Lots 5001 and 5003 which has the following key elements:

- Lot 5001 (Stages 1 and 2) containing a mix of shops, food premises, medical centre, office, indoor sport & recreation uses, with a total gross floor area (GFA) of approximately 4,548m².
- Lot 5003 (Stage 3) containing an 8-storey affordable housing residential building with a total of 98 dwelling units, and three retail use ground floor tenancies with a combined GFA of approximately 257m².
- Two separate car parking areas are approved (one for each Lot) with car parking associated with the retail uses within Lot 5003 being accommodated within Lot 5001. All car parking on Lot 5003 was approved for use by the residential use.

The Applicant (De Luca Corporation Pty Ltd) is now proposing a change to development which is limited to Lot 5003. All approved development within Lot 5001 is proposed to remain as approved. Details of the proposed changes are provided in Section 3 of this report.

As part of the approved development application TTM prepared two traffic engineering assessment reports (one for each Lot) which are nominated as 'supporting documents' in the current approval. This report, being the subject of the proposed change application, is intended to replace the previous Lot 5003 report. However, this report makes reference to, and considers, the approved development over Lot 5001.

2. Scope

The traffic-related aspects of the proposal addressed in this assessment include:

- Site access arrangements.
- Car parking arrangements, including supply and design layout.
- Service vehicle arrangements; and
- Identification of likely traffic generation of the proposal and its potential impacts on the surrounding road network.

This assessment has been undertaken with regard to the Fitzgibbon Urban Development Area Development Scheme (3 December 2021) and Brisbane City Council's CityPlan 2014 Version 30 (current) where relevant.

Reference is also made to the Cardno Traffic Impact Assessment, dated 1st May 2018, which was prepared in support of the Carseldine Village Masterplan.

The assessment is based on the proposed development plans prepared by Architectus, copies of which are included in **Attachment A**.

3. Existing Conditions

3.1 The Site

Figure 1 shows the site location being to the immediate south-west of the Beams Road / Plaza Place intersection and approximately 300m walk west of the Carseldine railway and busway station.

The site has previously been referred to as Lot V003 and is currently referred to as Lot 5003 and is situated within Stage V of the Carseldine Village masterplan development.

The site has one existing road frontage; Plaza Place along the eastern boundary.

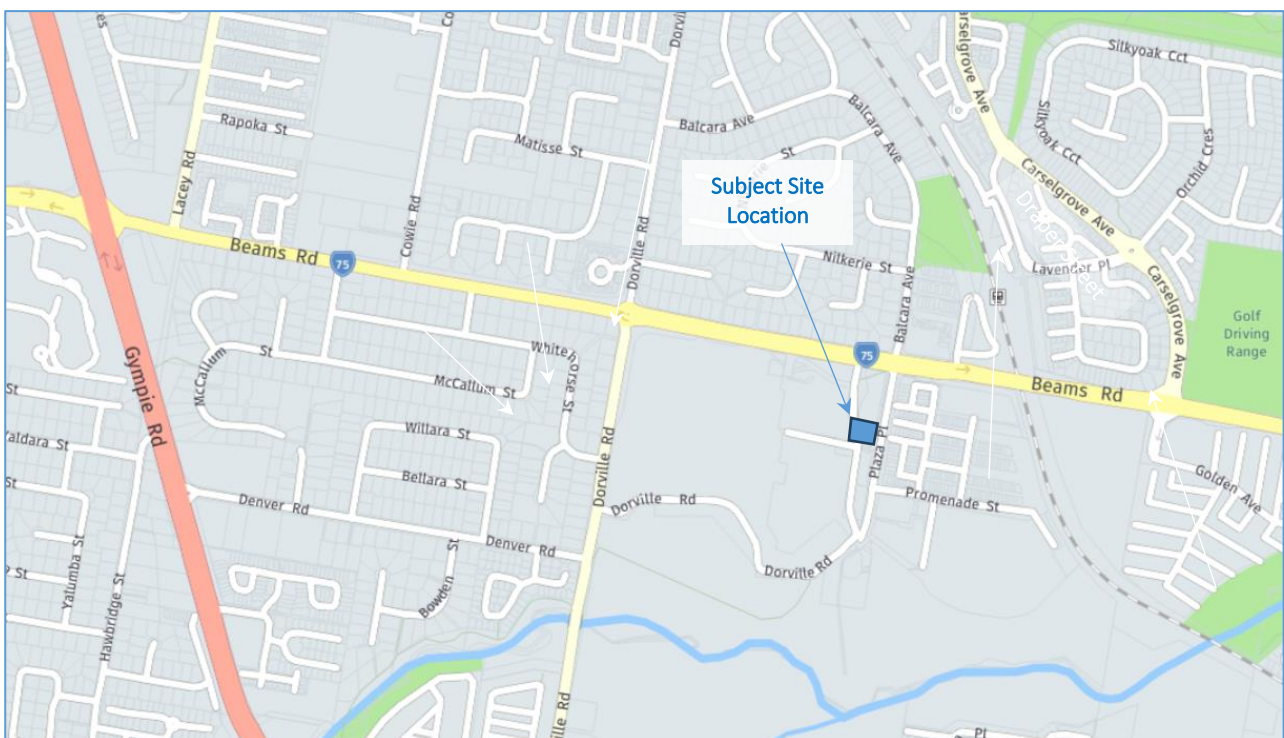


Figure 1: Site Location & Context (Source: Nearmap)

3.2 The Road Network

All roads in the near vicinity of the site are administered by Brisbane City Council.

Beams Road is a 4-lane divided arterial road. Plaza Place is a 2-lane divided main street.

Meander Street, which will be constructed by EDQ through the Stage V area to link Beams Road to Plaza Place, is designed as a 2-lane undivided with kerbside parking.

4. Proposed Development Changes

The proposed changes to the approved Lot 5003 development, from a traffic engineering assessment perspective, are generally summarised to be:

- Change from affordable housing dwelling units to typical market-product dwelling units with a reduction from 98 to 70 dwelling units. Table 1 below details the approved and proposed dwelling unit types and quantities.
- A 131m² reduction in ground level retail tenancy GFA (from 257m² to 126m²) and inclusion of a 300m² GFA commercial (office) tenancy. Table 2 below details the approved and proposed non-residential uses gross floor areas. Car parking for the retail tenancy is proposed to be accommodated within the adjacent Lot 5001 car parking area (as per the current approval) whilst parking for the commercial tenancy is proposed to be accommodated for within the subject Lot 5003 car parking area.
- An increase in on-site car parking supply of 25 spaces (from 68 to 92 spaces) with the addition of a second basement level parking area. The car parking layout generally remains unchanged in terms of access and circulation arrangements.
- Service vehicle on-site provisions remain generally the same with one service vehicle loading bay and associated on-site manoeuvring area.
- The vehicular site access remains generally unchanged (all-movements Type B2 crossover) to Meander Street with the only change being a slight reduction in width from 6.5m to 6.2m.
- Active transport site access remains generally unchanged with access provided on the northern building alignment (change from four to three accesses).

The traffic-related facilities associated with the proposed development are addressed in the following sections.

Table 1: Approved and Proposed Dwelling Types & Quantities

Approved Development		Proposed Development	
Dwelling Type	No. Dwelling Units	Dwelling Type	No. Dwelling Units
2-bedroom	28	2-bedroom 2-bathroom	49
1-bedroom	49	2-bedroom 2-bathroom 1-multi	7
Studio	21	2-bedroom 1-bathroom	14
Total	98	Total	70

Table 2: Approved and Proposed Non-residential Uses & GFA's

Uses	GFA		
	Approved	Proposed	Difference
Supermarket	804.3	804.3	0
Retail 5001	710.4	710.4	0
Retail 5003	257.2	125.5	-131.7
Retail/Allied Health	667.7	667.7	0
Lifestyle / Sport & Recreation (L1)	459.7	459.7	0
Medical/Allied Health/Lifestyle (L1)	1240.5	1240.5	0
Swim School	665	665	0
Commercial 5003	-	299.5	299.5
Totals	4804.8	4972.6	167.8

5. Site Access Arrangements

5.1 Vehicles

Consistent with the masterplan one vehicular site access is proposed to Meander Street, including:

- A 6.2m wide Type B2 entry/exit crossover on the western boundary.

The design layout of the accesses is adequate to accommodate the swept paths of the relevant design vehicles as demonstrated in TTM drawing number 23BRT0076-10B (**Attachment B**).

Motorist sight lines from the accesses along Meander Street are clear in all directions and the associated distances are adequate to ensure the safe and efficient operation of the accesses.

Detailed design of the accesses is to ensure pedestrian sight splays, measuring 2m x 2.5m, are provided on the exit side of the accesses which are to be kept clear of all obstructions to visibility (e.g. buildings, landscaping etc).

5.2 Active Transport Modes

One main, and two secondary (tenancy), active transport building accesses are proposed for the development on the northern building alignment connecting to the internal building lobby area. These building accesses connect to the east-west oriented active transport spine, within Lot 5001, that links Plaza Street to Meander Street providing safe, convenient, and efficient access to the development

6. Car Parking Arrangements

6.1 Supply

6.1.1 Statutory Requirements

The Fitzgibbon Urban Development Area Development Scheme (December 2021) requires on-site car parking to be provided in accordance with *Table 1: Car parking rates* of the Scheme, shown below in Figure 2 for reference.

Land use	Car parking requirement
Commercial/retail uses	<p>Retail - 1 space per 20m² of gross floor area to be provided for short term parking on ground level and/or directly accessible and identifiable.</p> <p>Commercial - 1 space per 30m² of gross floor area except where the site is within 400 metres of railway, busway station or busway stop or an employee travel plan has been developed and approved then 1 space per 50m².</p> <p>Minimum 50% of car parking spaces to be provided on site.</p> <p>Up to 50% of car parking spaces may be provided in shared or other facilities in proximity to the site where appropriate.</p>
House	<p>2.0 spaces per dwelling unit to be provided on site.</p> <p>Spaces may be provided in tandem, with a minimum length of 5.0 metres per space.</p> <p>Where the site is within 400 metres of a railway station or proposed busway station, a minimum of 1.0 space per dwelling unit to be provided on site.</p>
Multiple residential	<p>1.0 spaces per 1 bed or less dwelling units.</p> <p>1.2 spaces per dwelling unit for other units.</p> <p>Where the site is within 400 metres of a railway station or proposed busway station, a minimum of 0.75 spaces per 1 bed or less dwelling units and 1.0 space per unit for other dwelling units to be provided on site.</p>

Figure 2: Development Scheme Car Parking Requirements (Source: Fitzgibbon Urban Development Area Development Scheme)

Table 3 below summarises the Development Scheme’s requirements applicable to the overall proposed development, including Lots 5001 and 5003. As indicated the total on-site car parking requirement is 298 spaces.

The approved car parking supply for Lot 5001 is 204 spaces whilst the proposed car parking supply for Lot 5003 is 92 spaces i.e. total of 296 spaces. This supply represents a shortfall of 2 spaces when compared to the Development Scheme requirement (298 spaces). However, it is understood that it is EDQ’s preference that on-site car parking is minimised as far as practical in the interest of promoting sustainability. Accordingly, the proposed supply is appropriate and balances the need to promote active transportation and the need to accommodate likely peak parking demands of the development.

It is concluded that the proposed car parking supply is generally consistent with the requirements of the Development Scheme and is therefore satisfactory.

Table 3: EDQ Development Scheme Car Parking Requirements & Proposed Supply

Use	Yield		Scheme Requirement	
	Qty	Units	Rate	No. Spaces
Retail (including Lot 5003, 125.5m ²) ¹	2307.9	m ²	1 space / 20m ²	115
Commercial (including Lot 5003, 299.5m ²) ²	1540	m ²	1 space / 50m ²	31
Indoor Sport & Recreation (Gym) ³	459.7	m ²	1 space / 10m ²	46
Indoor Sport & Recreation (Swim School)	665	m ²	15 + 1 space / 100m ²	22
Multiple Residential (2-beds)	70	units	1.2 spaces / unit	84
Totals				298

¹ Includes all supermarket, retail, and retail/allied health tenancies.

² Includes all medical/allied health/lifestyle tenancies.

³ Includes lifestyle/sport & recreation tenancy (L1 Lot 5001).

6.1.2 Prelodgement Discussion Considerations

Regarding prelodgement discussions between EDQ and the Applicant, it is understood that EDQ representatives advised that car parking associated with the multiple residential use should be provided at a maximum rate of 1.0 space per dwelling.

Whilst this ‘maximum’ rate approach is technically a misinterpretation of the Development Scheme parking requirements (Table 1), which is noted to include the flexibility for an Applicant to propose a lower rate of supply where a site is situated within 400m of a railway station, provision of car parking at 1.0 space per dwelling is inappropriate as it would likely result in car parking demands generated by the development overspilling onto the surrounding road network (on-street parking) for which there is low and limited facilities in close proximity to the site (Meander Street and Plaza Street).

Importantly, and by comparison, Brisbane City Council’s parking rates for multiple residential development anywhere outside of the City Frame but within 400m of a railway station (which this site is) is a minimum of 2.25 spaces per dwelling (2 resident and 0.25 visitor spaces per dwelling). The applicable rate for a site within the City Frame (which it is noted that the Bowen Hills PDA is situated) is 1.25 spaces per dwelling (1.1 resident and 0.15 visitor spaces per dwelling). These Council rates have been developed in recognition of the need to balance both parking demand (and its impacts on on-street parking provision) and promote increased usage of active and public transport modes with the associated reduction of car-based travel dependency in the City.

Accordingly, it is TTM’s recommendation that car parking supply for the proposed multiple residential use be provided at the prescribed rate in the Development Scheme (1.2 spaces per dwelling).

6.2 Design Layout

Review of the development plan indicates that the proposed design layout of the on-site car parking is consistent with the design standards prescribed in Council’s TAPS PSP, Australian Standard AS2890.1:2004,

and good practice. Detailed design of all elements of the on-site car parking area is to be in accordance with all relevant standards and guidelines.

7. Service Vehicle Arrangements

A single service vehicle loading bay is proposed within the ground level of the proposed building. It is intended for use by occasional furniture trucks, delivery vehicles associated with the ground level retail and commercial tenancies, and refuse collection by Council's rear-loading collection vehicle.

As demonstrated in TTM drawing number 23BRT0076-10B (**Attachment B**) the proposed development layout and loading area is adequate to accommodate the relevant design vehicles, including vehicles up to a 10.3m rear-loading refuse collection vehicle.

8. Potential Traffic Impacts

Table 3 below details the development yield and traffic generation estimates associated with the currently proposed development, inclusive of all three development lots within Stage V, and that assumed in the initial traffic impact assessment undertaken by Cardno for the Carseldine Village masterplan development.

The analysis indicates that the currently proposed development would generate an estimated 383 vehicle trips per hour which equate to approximately 70% of the traffic demands initially assumed in the masterplan assessment. As such, the proposal would not result in any additional traffic impacts on the surrounding road network as contemplated by the masterplan development and its associated traffic impact assessment.

Additionally, it is noted that the proposed changes result in a slight reduction in trip generation of the currently approved development (398 vehicle trips per hour).

Table 3: Estimated Development Traffic Volumes Comparison

Lot No.	Land Use	Yields				Estimated Trip Generation (peak hour)			
		Original		Proposed		Rate		Proposed	Original
V001 / 5001 & 5003	Retail	4000	m ²	2307.9	m ²	12.3	vph/100m ²	284	492
	Commercial	1765	m ²	1540	m ²	2	vph/100m ²	31	35
	Indoor Sport & Recreation (Gym)	0	m ²	459.7	m ²	3.8	vph/100m ²	17	0
	Indoor Sport & Recreation (Swim School)	0	m ²	665	m ²	2	vph/100m ²	13	0
	<i>Sub-total</i>	<i>5765</i>	<i>m²</i>	<i>4,972.6</i>	<i>m²</i>	<i>Sub-total</i>		<i>345</i>	<i>527</i>
V002 / 5002	Residential Dwellings	33	dwellings	33	dwellings	0.575	vph/dwelling	19	19
V003 / 5003	Residential Units	60	units	70	units	0.23	vph/dwelling	17	14
						Totals		381	560

9. Conclusions

From the assessment undertaken and summarised herein the following conclusions are drawn:

- The proposed vehicular and active transport site access arrangements are effectively the same as currently approved and are appropriate for the development by being designed and located generally in accordance with applicable standards. Detailed design and construction of all accesses is to ensure compliance with all relevant standards.
- A total of 92 on-site car parking spaces, including 1 PWD space, is proposed for the Lot 5003 development (68 currently approved) with the total supply over both Lots (5001 and 5003) being 296 spaces. This proposed supply represents a minor shortfall of 2 spaces when compared to the Development Scheme minimum car parking requirement (298 spaces). Despite the shortfall the proposed provision represents a balance of promoting sustainability and active transport mode share whilst providing for the practical peak parking demands of the development. The proposed parking layout is consistent with relevant design standards and detailed design and construction is to ensure compliance with such standards.
- The proposed service vehicle arrangements are effectively the same as currently approved and are adequate and appropriate for the development.
- No adverse traffic impacts are anticipated as a result of the proposed changes to the approved development and no impact-mitigating upgrades are warranted.

I trust the information provided herein is adequate for your purposes. Should you require any further information, please contact me by phone on (07) 3327 9500 or by email at dgrummitt@ttmgroup.com.au.

Yours sincerely,



David Grummitt | RPEQ MIEAust NER
Director
TTM Consulting Pty Ltd

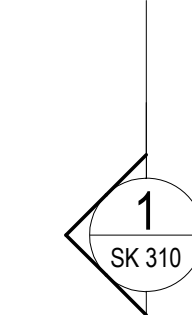
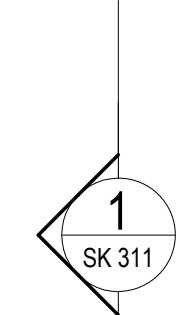
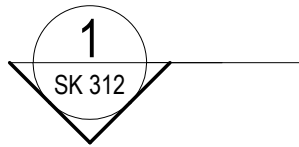
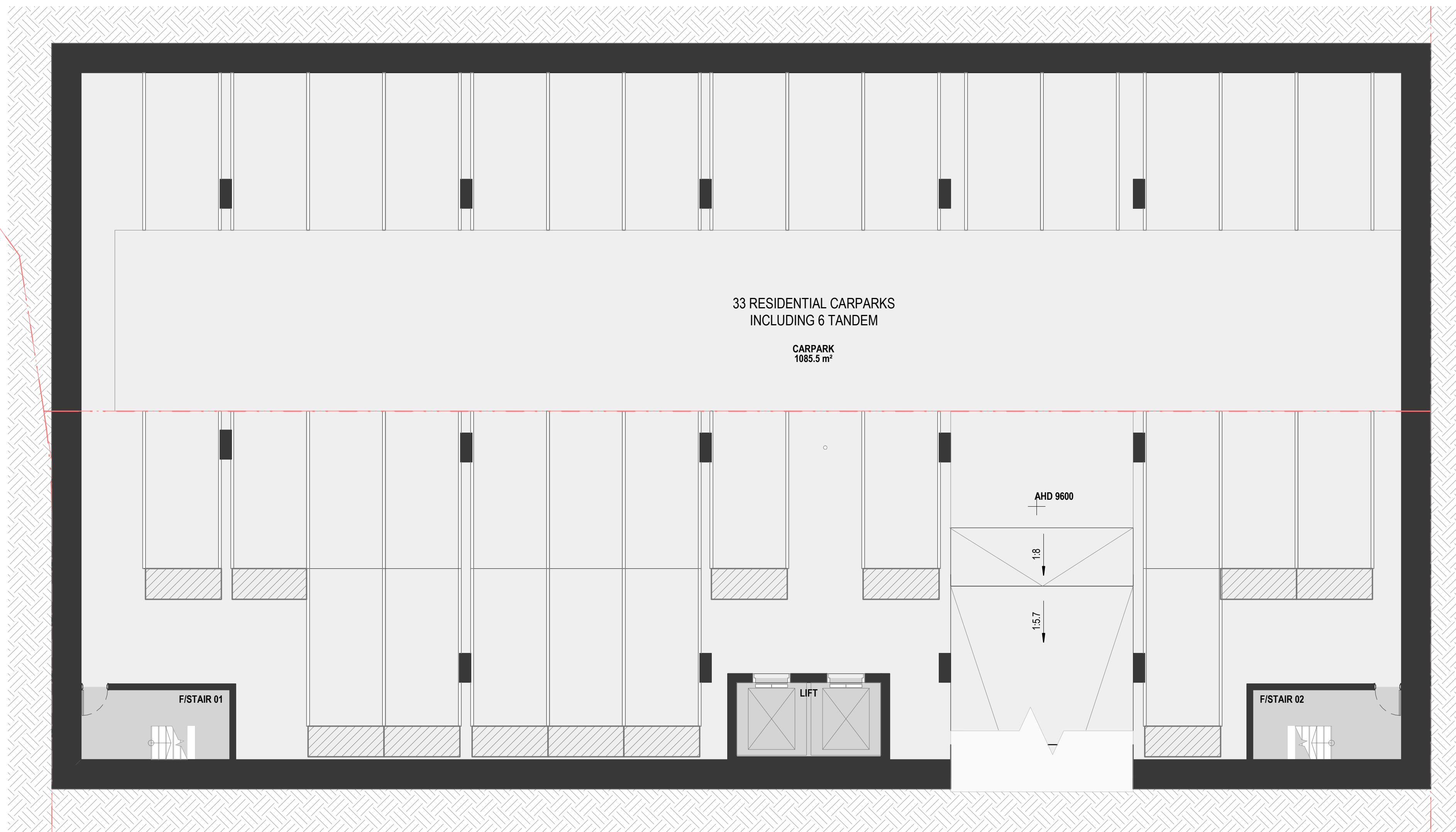
Attachments:

- A. Proposed Development Plans
- B. Vehicle Swept Path Analysis Drawing

ATTACHMENT A

Architectural Development Plans

We acknowledge the Traditional Custodians of the land on which this project is sited, and pay respects to their Elders past, present and emerging.



Revision	REV	DESCRIPTION	DATE	APP.
1	1	Prelim EDQ Pack	09/08/2024	DF

Client
DELUCA

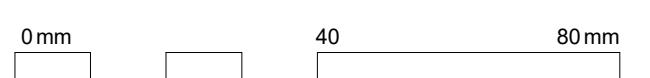
Project
**THE VILLAGE
CARSELDINE**

Drawing
5003 - BASEMENT 02

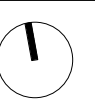
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Revision 1

Number SK - AR - DR - SK 090

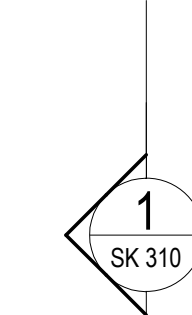
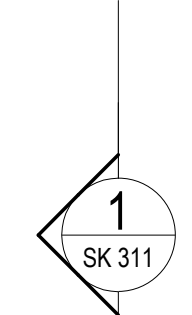
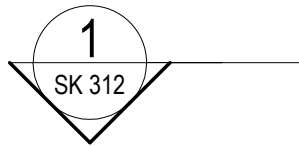
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Nominated Architect : Lawrence Toalido NSWARB Reg. 10255.
Nominated Architect : Ray Brown NSWARB Reg. 6359.



PRELIMINARY



We acknowledge the Traditional Custodians of the land on which this project is sited, and pay respects to their Elders past, present and emerging.



Revision	REV	DESCRIPTION	DATE	APP.
1	1	Prelim EDQ Pack	09/08/2024	DF

Client
DELUCA

Project
THE VILLAGE CARSELDINE

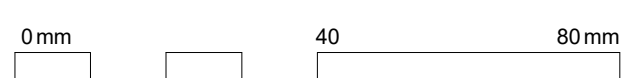
Drawing
5003 - BASEMENT 01

PRELIMINARY

A1 Scale 1 : 100
Project No. 23.0159
Revision 1

Number SK - AR - DR - SK 091

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1	Prelim EDQ Pack	09/08/2024	DF

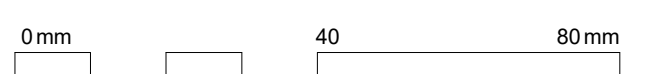
Client
DELUCA

Project
THE VILLAGE CARSELDINE

Drawing
5003 - GROUND FLOOR

A1 Scale 1 : 100
Project No. 23.0159
Revision 1
Number SK - AR - DR - SK 100

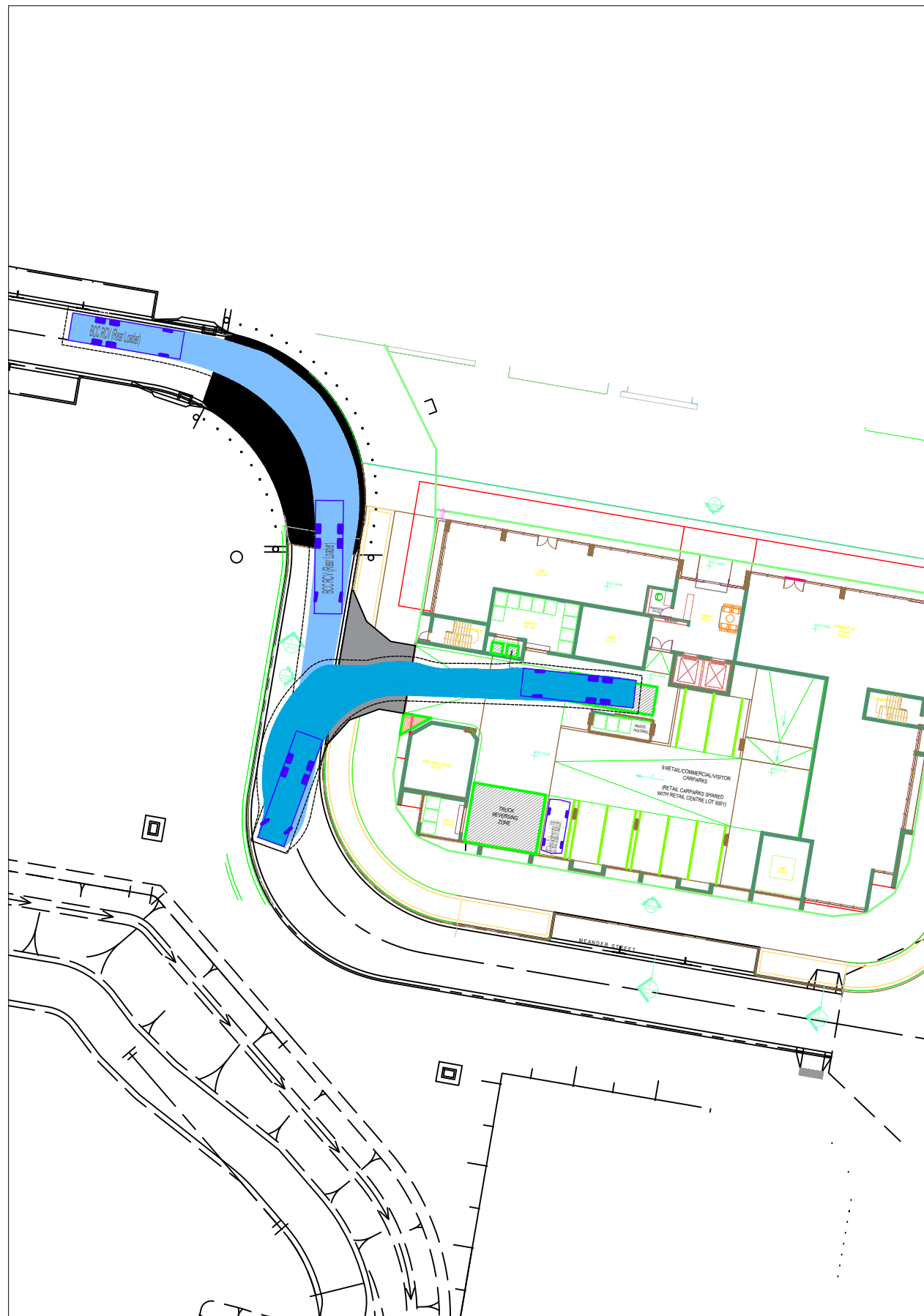
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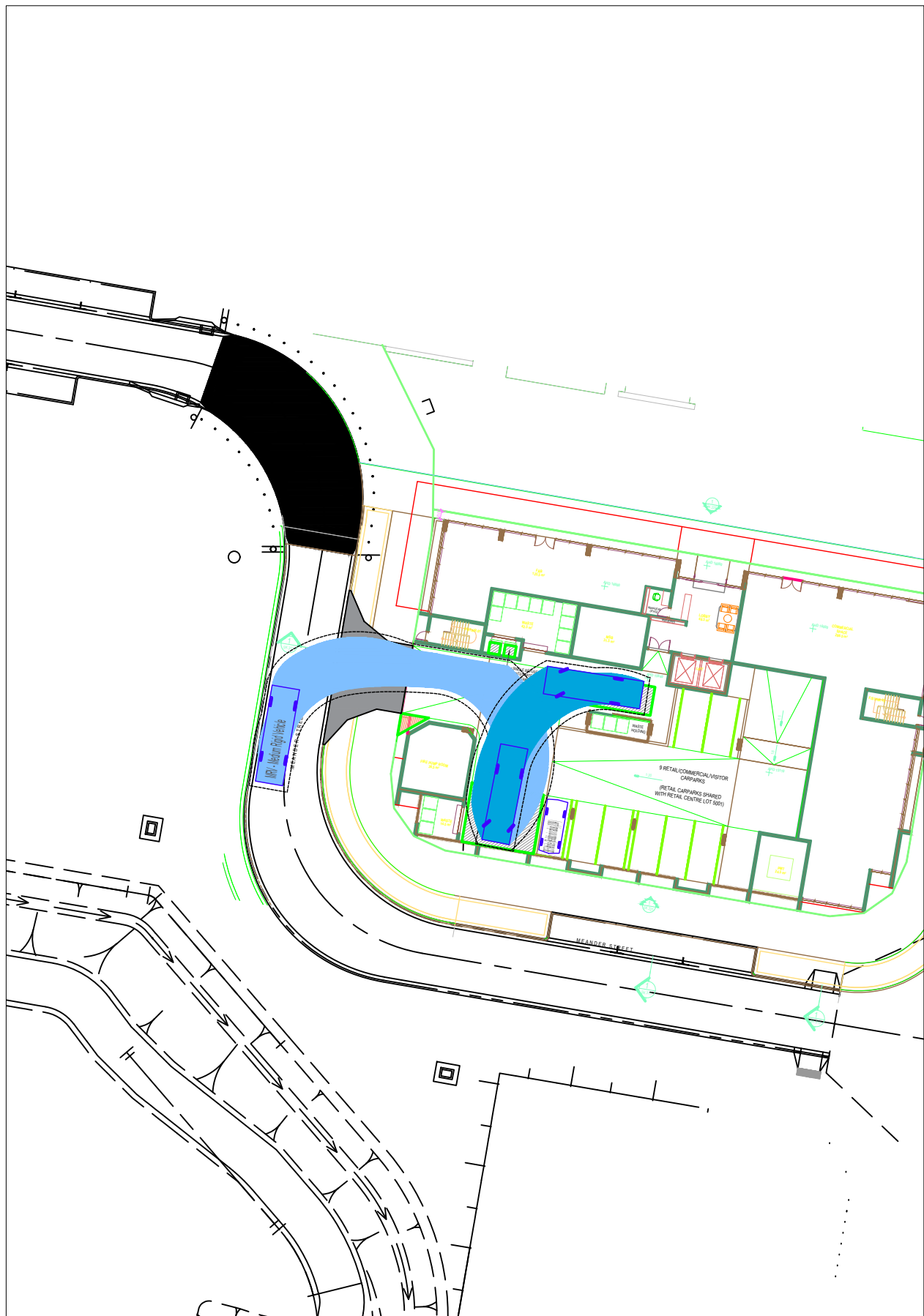
PRELIMINARY

ATTACHMENT B

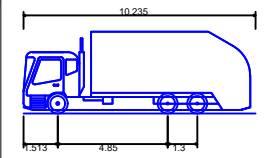
Vehicle Swept Path Analysis Drawing



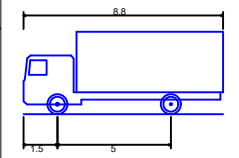
10.3m REAR-LOADING REFUSE COLLECTION VEHICLE



8.8m MEDIUM RIGID VEHICLE



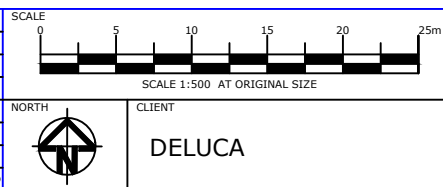
BCC RCV (Rear Loader)
 Overall Length 10.235m
 Overall Width 2.500m
 Overall Body Height 3.600m
 Min Body Ground Clearance 0.150m
 Track Width 2.500m
 Lock-to-lock time 6.00s
 Curb to Curb Turning Radius 9.500m



MRV - Medium Rigid Vehicle
 Overall Length 8.800m
 Overall Width 2.500m
 Overall Body Height 3.633m
 Min Body Ground Clearance 0.428m
 Track Width 2.500m
 Lock-to-lock time 4.00s
 Curb to Curb Turning Radius 10.000m

D. Grummitt DIRECTOR
 DAVID GRUMMITT RPEQ 19356
 APPROVED 25 Sep 2024

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
B	25-09-24	CHANGE DA	DG	DG	DG
A	14-12-23	ORIGINAL ISSUE	DG	DG	DG



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PROJECT **CARSELDINE VILLAGE**
 DRAWING TITLE **VEHICLE SWEEP PATH ANALYSIS
 LOT 5003 RESIDENTIAL SERVICE VEHICLES**

PROJECT NUMBER	23BRT0076	ORIGINAL SIZE	A3
DRAWING NUMBER	23BRT0076-10	REVISION	B
DATE	25 Sep 2024	SHEET	1 OF 1