

Client
3 Waverley Developer P/L

Date
18 October 2024

Planning

Transport

Urban Design

Waste Management

Waste Management Plan

3 Waverley Avenue, Ivanhoe

ratio:

ADVERTISED PLAN
Application No. P1157/2024

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Project
3 Waverley Avenue, Ivanhoe

Prepared for
3 Waverley Developer P/L
Our reference
19734W-R02F01

Directory path <https://ratioconsultants1.sharepoint.com/sites/19734W/Shared%20Documents/General/9%20Reports/19734W-R02F01.docx>

Version	Date	Issue	Prepared by	Checked by
R01D01	21/06/2023	Town Planning - Draft	W Psiwa	M Fairlie
R01F01	23/06/2023	Town Planning - Final	W Psiwa	M Fairlie
R01F02	9/10/2023	Town Planning - RFI Response	W Psiwa	M Fairlie
R02F01	18/10/2024	Amended Plans	M Fairlie	M Fairlie

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Appendices

Appendix A : Plans Assessed

Appendix B : Swept Path Assessment

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1. Introduction

1.1. Project Details

Site Address

3 Waverley Avenue, Ivanhoe

Local Council

Banyule City Council (Phone: 03 9457 9808)

Planning Application Number

P635/2023

Development Type

Residential (apartments)

Development Summary

Waste Source	Quantity
3-Bedroom Apartment	10
Total	10

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1.2. Purpose

This Waste Management Plan addresses Council's previous comments regarding waste-related matters, as stipulated below:

- *1100L MGB is quite tall and inaccessible for people of shorter stature, elderly persons, and persons living with a disability. The maximum sized bin permitted in this context is 660L.*
- *Collection frequency for this number of dwellings in a building is a maximum of once per week per waste stream.*
- *The proposal to transport bins to the street for collection is not acceptable. The lot is wide enough to accommodate the entry and turnaround of a waste collection vehicle.*
- *Bins are to be collected from the basement with the waste collection vehicle entering and exiting in a forward's direction which is required by the waste guidelines to minimise the risk to pedestrian traffic. Consequently, a bin tug is likely not required which will provide additional space for the hard waste storage area which is not large enough to accommodate furniture items associated with move in and move outs (queen sized mattresses).*
- *The lift door appears narrow. Please confirm the width for the purpose of moving furniture in and out of the building.*

1.3. Limitations

Waste management arrangements during the construction and fit-out stages of the development, and on-going operation and monitoring of the waste management arrangements for the development following the occupation of the development are outside the scope of this Waste Management Plan.

1.4. Applicable Standards and References

Relevant policies and guidelines considered as part of the preparation of this Waste Management Plan include:

- Australian Government – National Waste Policy: Less Waste, More Resources (2018).
- Victorian Government – Recycling Victoria: A New Economy (2020).
- Sustainability Victoria – Better Practice Guide for Waste Management and Recycling in Multi-Unit Developments (2018).
- City of Melbourne – Guideline for Waste Management Plans (2021).
- EPA Victoria – Noise Control Guidelines (2021).

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2. Operational Waste Management Guide

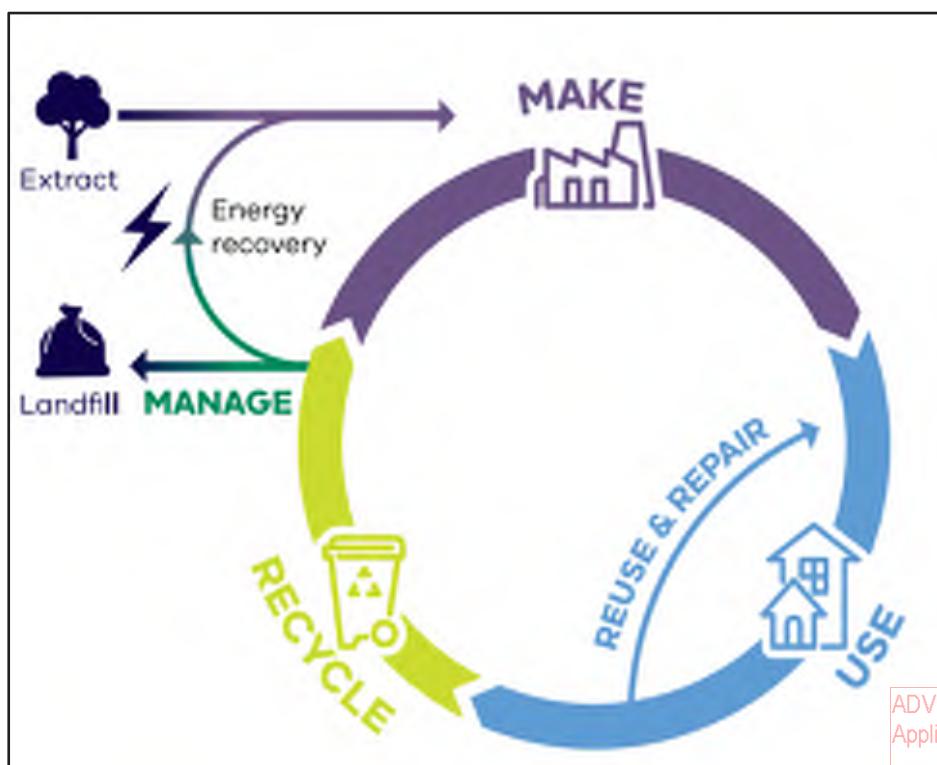
2.1. Recycling Victoria: A New Economy

The Victorian Government's Recycling Victoria: A New Economy was released in 2020 and sets out strategies to reduce the amount of waste generated in Victoria and increase the amount of materials for recycling and reprocessing to reduce damage to the environment caused by waste.

Ongoing education and dedicated ongoing management services are critical factors in encouraging users to continue to use the services and systems as intended. The future Occupiers of the development shall promote the above strategy where practicable and encourage users to participate in minimising the impact of waste on the environment. In particular, consideration should be made to the circular economy as shown in Figure 2.1 below.

A circular economy continually seeks to reduce the environmental impacts of production and consumption, while enabling economic growth through more productive use of natural resources.

Figure 2.1: The Circular Economy



Source: Recycling Victoria: A New Economy

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2.2. Guide for Residents

General Waste

- Each resident shall place general waste into a dedicated general waste provided within each apartment.
- Each resident shall empty their general waste receptacle into the general waste collection bins located within the basement bin room when full.
- Each resident must ensure that general waste is placed within tied bags (biodegradable material recommended) prior to being placed into the general waste collection bins.

Organics

- Each resident shall place food scraps into a dedicated organics caddy within each apartment.
- Each resident shall empty their organics caddy into the organics collection bins located within the basement bin room when full.
- Each resident must ensure that organics is either unbagged or placed within approved compostable bags prior to being placed into the organics collection bins.

Recycling

- Each resident shall place recycling into a dedicated recycling receptacle within each apartment.
- Each resident shall empty their recycling receptacle into the recycling collection bins located within the basement bin room when full.
- Each resident must ensure that bottles, cans, and containers are rinsed, cardboard is flattened, and lids/packaging are separated as per the Australasian Recycling Label instructions (visit: <https://recyclingnearyou.com.au/ar1/>), prior to being placed into the recycling collection bins.
- Recycling must not be bagged.

Glass

- Each resident shall place glass into a dedicated glass receptacle within each apartment.
- Each resident shall empty their glass receptacles into the glass collection bins located within the basement bin room when full.
- Each resident must ensure that glass bottles and jars are rinsed, and lids/packaging are separated as per the Australasian Recycling Label instructions (visit: <https://recyclingnearyou.com.au/ar1/>), prior to being placed into the glass collection bins.
- Glass must not be bagged.

Other Waste Streams

- **Hard waste and e-waste:** residents shall take hard waste and e-waste to the dedicated storage area located in the basement bin room. Building Management shall be responsible for organising hard waste and e-waste to be collected by a private contractor on an as-required basis.

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2.3. Building Management Responsibilities

Building Management shall be responsible for the following:

- Ongoing management of the waste management systems including the maintenance of the bin room and associated equipment and components, to the satisfaction of all waste system users and the relevant authority, and in accordance with the manufacturer's specifications.
- Engaging and managing the private waste collection contractor(s).
- Publishing and distributing information to ensure that all waste system users are familiar about the waste management systems.
- Informing all waste system users that bagged recycling and glass is not permitted.
- Developing and implementing adequate safe operating procedures (including the preparation of Safe Work Method Statements).
- Labelling/numbering the bins according to the property address to protect them from theft and vandalism.
- Servicing all communal areas through sweeping and removal of litter on a regular basis.
- Arrange and manage the disposal of common garden organics via a landscaping contractor.
- Preventing overfilled bins by keeping lids closed.
- Ensuring that bins are not removed from the site.
- Ensuring that the bin room and associated equipment and components are provided as per the design requirements outlined in Section 6.

2.4. Waste Management Plan Communication Strategy

Building Management shall ensure that all waste systems users are informed about the development's waste management system, including where and how to correctly dispose of each waste stream. It is highly recommended that this Waste Management Plan is electronically provided to all residents.

Building Management (in conjunction with the waste collection contractor) shall provide educational material to inform all waste system users about the development's waste management system and advise all waste system users how to correctly separate and dispose of each waste stream with care, to minimise waste sent to landfill and reduce the contamination of recyclables.

2.5. Waste Management Plan Revisions

From time to time, due to changes in legislative requirements, changes in the development's needs and/or waste patterns (such as waste composition, volume, or distribution), or to address unforeseen operational issues, Building Management shall be responsible for coordinating the necessary Waste Management Plan revisions, including (on an as-required basis):

- A waste audit and new waste management strategy.
- Revision of the waste system (bin size / quantity / waste streams / collection frequency / update of equipment).
- Revision of the services provided by the waste collection contractor(s).
- Re-education of users.
- Any necessary statutory / regulatory requirements / approvals.

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3. Waste Volume Assessment

3.1. Waste Volume Assessment

At the time of preparation of this Waste Management Plan, Banyule City Council has no published waste generation rates for residential land uses. The waste generation rates specified within City of Melbourne's 'Guidelines for Waste Management Plans' are considered appropriate and have been adopted for the development, as outlined below:

3-Bedroom Unit

- General Waste: 90 L/unit/week
- Organics: 30 L/unit/week
- Recycling: 84 L/unit/week
- Glass: 36 L/unit/week

Applying the above waste generation rates, the waste generation estimates for the development are outlined in Tables 3.1 and 3.2 below.

Table 3.1: General Waste & Organics Volume Estimates

Waste Source	Quantity	General Waste Generation Rate (L/Apartment /Week)	General Waste Volume (L/Week)	Organics Generation Rate (L/Apartment /Week)	Organics Volume (L/Week)
3-Bedroom Apartment	10	90	900	30	300
Total	10	-	900	-	300

Table 3.2: Recycling & Glass Volume Estimates

Waste Source	Quantity	Recycling Generation Rate (L/Apartment /Week)	Recycling Volume (L/Week)	Glass Generation Rate (L/Apartment /Week)	Glass Volume (L/Week)
3-Bedroom Apartment	10	84	840	36	360
Total	10	-	840	-	360

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4. Waste Storage Details

4.1. Waste Storage Requirements

The waste storage requirements for the development are outlined in Table 4.1 below.

Table 4.1: Waste Storage Requirements

Waste Stream	Bin Size (L)	Quantity	Height per bin (mm)	Width per bin (mm)	Depth per bin (mm)	Footprint (m ²)					
General Waste	660	1	1200	1260	780	0.98					
	240	1	1060	585	730	0.43					
Organics	240	2	1060	585	730	0.85					
Recycling	660	1	1200	1260	780	0.98					
	240	1	1060	585	730	0.43					
Glass	240	2	1060	585	730	0.85					
Hard Waste/ E-Waste	3 sqm storage area					3.00					
Total Footprint Required Excluding Circulation (m²):						7.53					
Total Area Provided (m²):						22.00					

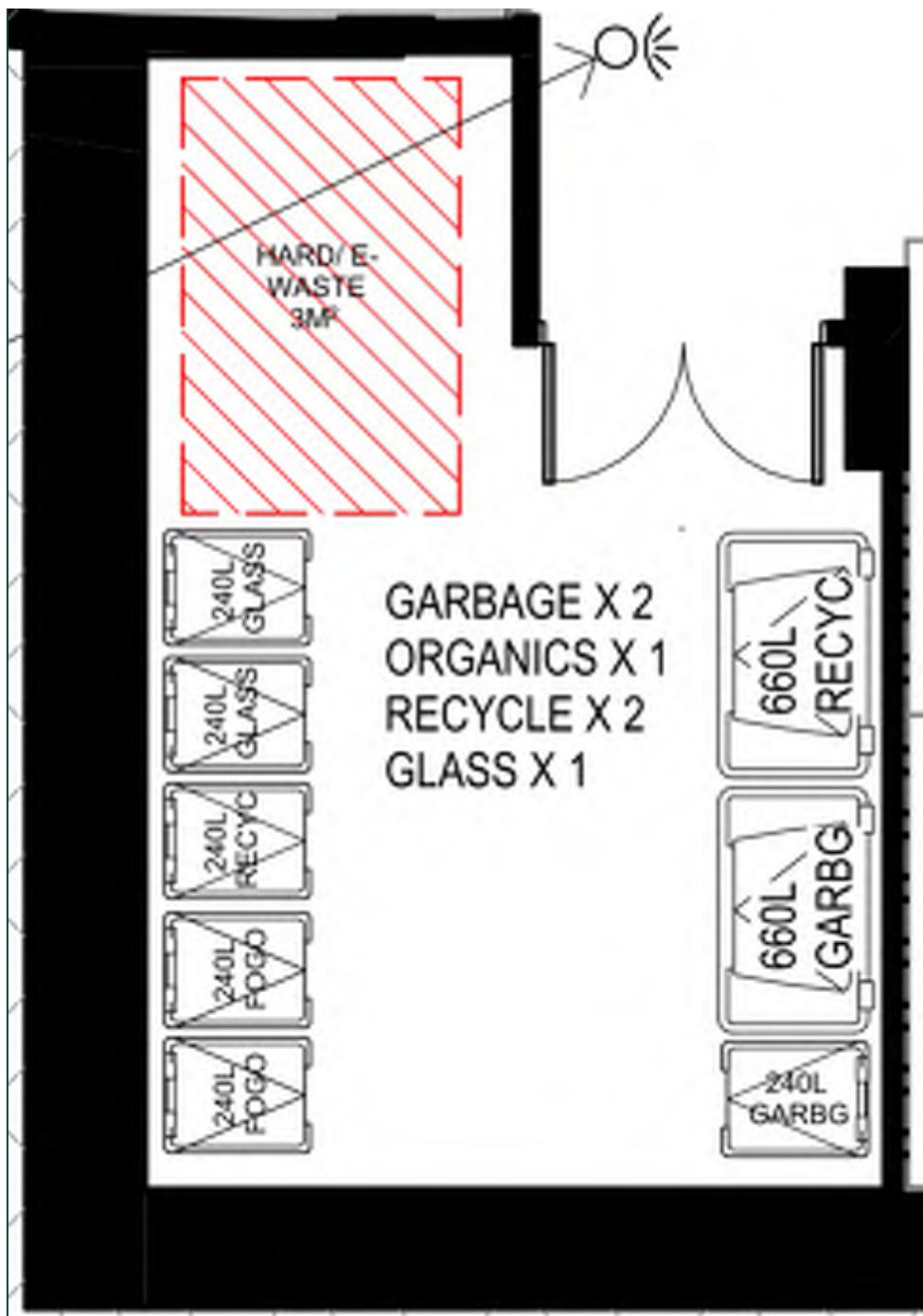
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4.2. Waste Storage Layout

The proposed waste storage layout for the development is shown in Figure 4.1 below.

Figure 4.1: Waste Storage Layout



Notes:

- The hard waste storage area can accommodate furniture items associated with move-ins and move-outs.
- The lift's width is adequate for the efficient movement of hard waste in and out of the building.

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5. Waste Collection Details

5.1. Waste Collection Requirements

The waste collection requirements for the development are outlined in Table 5.1 below.

Table 5.1: Waste Collection Requirements

Waste Stream	Volume (L/week)	Bin Size (L)	Quantity	Collection Frequency	Capacity (L/week)
General Waste	900	660	1	Weekly	900
		240	1	Weekly	
Organics	300	240	2	Weekly	480
Recycling	840	660	1	Weekly	900
		240	1	Weekly	
Glass	360	240	2	Weekly	480
Hard Waste/E-Waste	-	3 sqm storage area		As required	-

5.2. Waste Collection Methodology

The proposed waste collection methodology for the development is outlined below:

- Waste shall be collected from the basement by a private contractor.
- The nominated waste collection vehicle is the 6.4-metre-long mini rear loader, which has a travel height clearance requirement of 2.2 metres and an operational height clearance requirement of 2.4 metres when collecting bins up to a size of 660 litres. No height clearance issues have been identified within the site.
- The waste collection contractor shall be provided with access to the bin room and shall be responsible for the transfer of bins to/from the waste collection vehicle. Once collection is complete, the waste contractor shall be responsible for ensuring that bins are returned to their original positions within the bin room.
- A swept path assessment prepared by Ratio's traffic team (refer to Appendix B) demonstrates that a mini rear loader can access the basement car park, conduct collection, and exit the site in a forward direction.
- The waste collection contractor shall also be responsible for the development of a Safe Work Method Statement (SWMMS) to ensure safety is considered for every aspect of the collection process.
- Building Management shall be responsible for organising hard waste and e-waste to be collected by a private contractor on an as-required basis.

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5.3. Waste Collection Time

Waste collection shall be undertaken in accordance with EPA Victoria's 'Noise Control Guidelines', as outlined below:

- Between 7:00am and 8:00pm Monday to Saturday; and
- Between 9:00am and 8:00pm Sunday and public holidays.

Further to the above, it is recommended that waste collection is undertaken outside of peak AM and PM periods to minimise disruption to vehicles entering and exiting the site (i.e. between 10:00am and 3:00pm on weekdays).

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6. Design Standards

6.1. Bin Room Design Requirements

The bin room shall be designed to meet the following requirements:

- Designed to comply with Building Code of Australia (BCA) and all relevant Australian Standards.
- Allow storage of all collection bins on site at all times.
- Allow easy access to bins for all waste system users.
- Allow direct and convenient transfer of bins to/from the collection point.
- Appropriately screened to prevent unsightly impacts on amenity.
- Provided with artificial light to enable waste system users to dispose of waste safely and appropriately.
- Sized to accommodate all waste arising on the premises together with any associated waste management equipment
- Concrete (or similar) floor finished to a smooth, even surface, covered at the intersection of walls and plinths.
- Ventilated in accordance with the requirements of the Building Code of Australia and AS1668.2.
- Ventilation openings protected against flies and vermin.
- Provided with tight-fitting doors.
- Provided with adequate bin washing facilities (wall-mounted hot and cold mixing tap with floor graded to wastewater drain with litter trap) in accordance with the relevant authority requirements.

6.2. Bin Colour and Signage Requirements

It is recommended that all collection bins are provided in the following colours:

- General waste collection bins: dark green or black body and red lid.
- Organics collection bins: dark green or black body and lime green lid.
- Recycling collection bins: dark green or black body and yellow lid.
- Glass waste collection bins: dark green or black body and purple lid.

All collection bins shall be provided with Sustainability Victoria or equivalent signage (visit: <https://www.sustainability.vic.gov.au/recycling-and-reducing-waste/waste-systems-in-residential-commercial-and-industrial-buildings/waste-signage>).

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6.3. Internal Waste Receptacle Requirements

Internal waste receptacles for the development should meet the following requirements:

- General waste: large enough to hold at least 2 days' worth of waste, but no larger than 25 litres.
- Organics: large enough to hold at least 2 days' worth of organics (~10 litres).
- Recycling: large enough to hold at least 2 days' worth of recycling, but no larger than 25 litres.
- Glass: large enough to hold at least 2 days' worth of glass (~10 litres).

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7. Contact Information

Table 7.1 below includes a complimentary listing of contractors and equipment suppliers. The Project Principal shall not be obligated to procure goods / services from these companies. Ratio Consultants does not warrant or make representations for the goods / services provided by these contractors and suppliers.

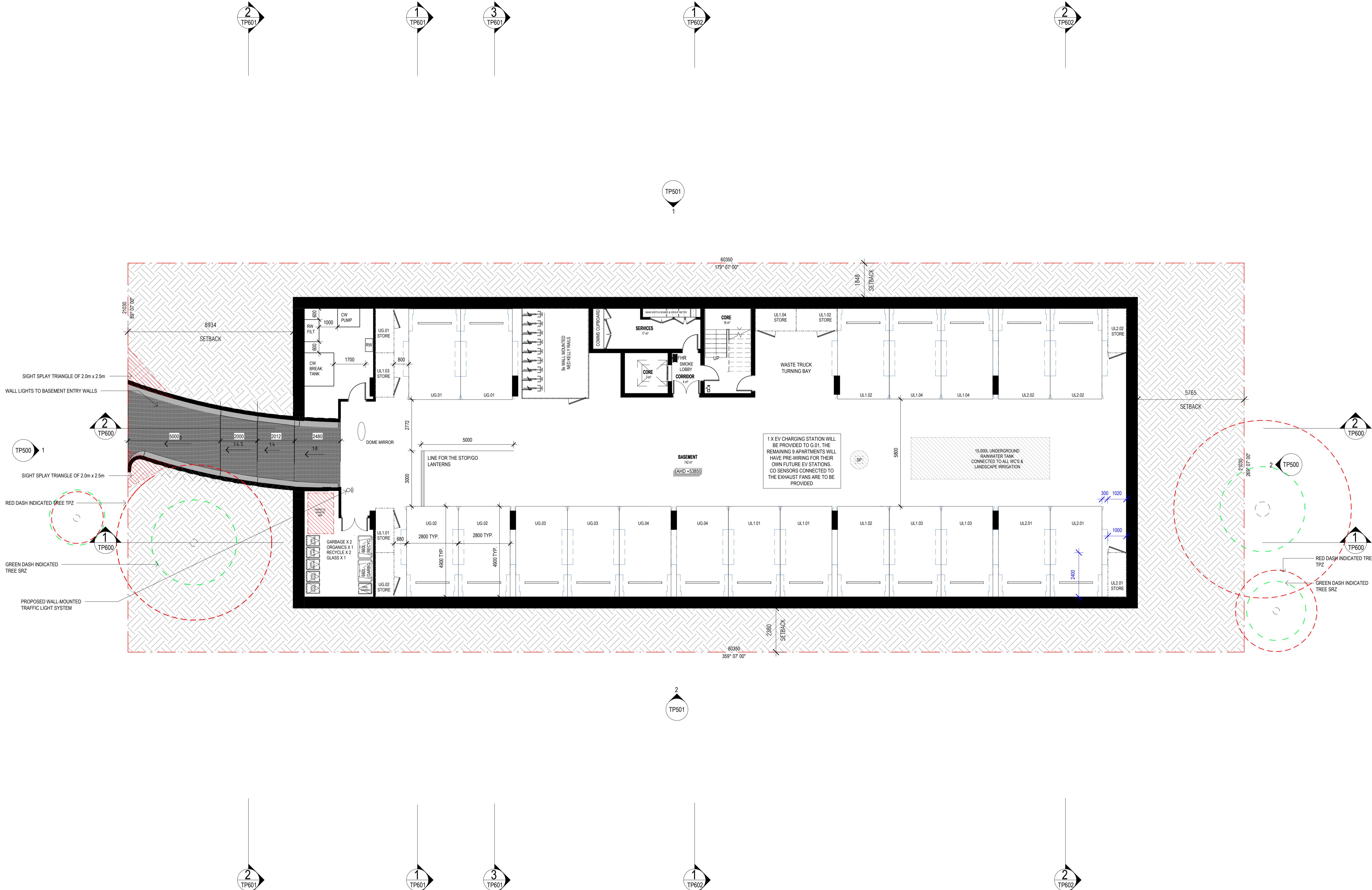
Table 7.1: Contractors and Supplier Details

Service	Contractor/ Supplier	Phone	Website
Private Waste Collection Contractor and/or Bin Supplier	Cleanaway	13 13 39	www.cleanaway.com.au
	CSC Waste & Recycling	1300 499 927	www.cscwaste.com.au
	iDump	1300 443 867	www.idump.com.au
	JJ Richards	03 9794 5722	www.jjrichards.com.au
	Premier Waste	1300 219 001	www.premierwaste.com.au
	SUEZ	13 13 35	www.suez.com.au/en-AU
	Veolia	132 955	www.veolia.com/anz
	Wastewise Environmental	1300 550 408	www.wastewise.com.au
	Sulo Australia	1300 364 388	www.sulo.com.au
Bin Washing	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
	Calcorp Services	1800 225 267	www.calcorpservices.com.au
	Kerbside Clean-A-Bin	03 9830 7381	www.kerbsidecleanabin-srp.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au
Odour Control	Eco-Safe Technologies	1300 135 039	www.eco-safe.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au Application No. P1157/2024
E-Waste Collection	Tech Collect	1300 229 837	www.techcollect.com.au available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning Environment Act 1987. The document must not be used for any purpose which may breach any copyright.

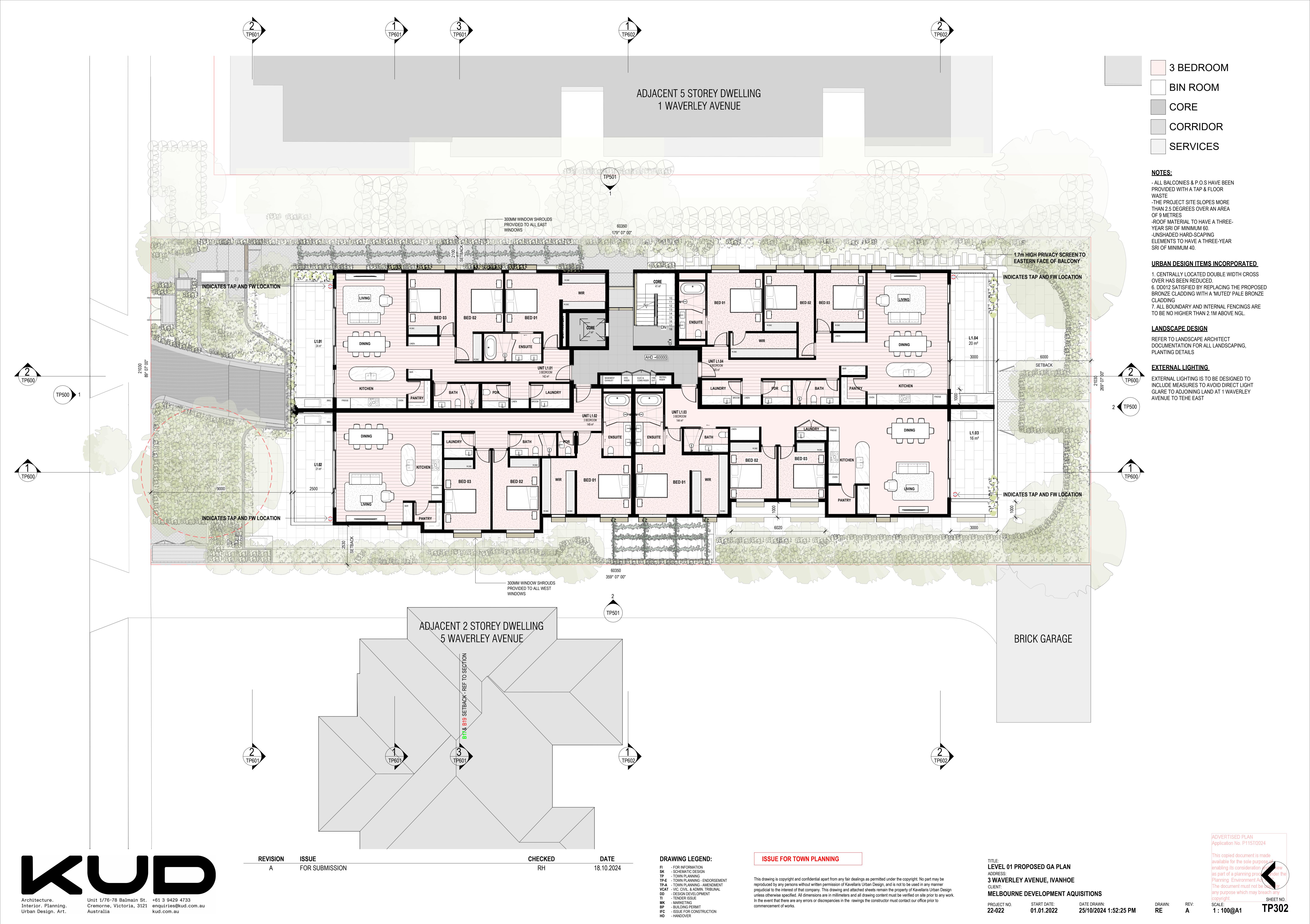
Appendix A : Plans Assessed

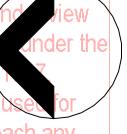
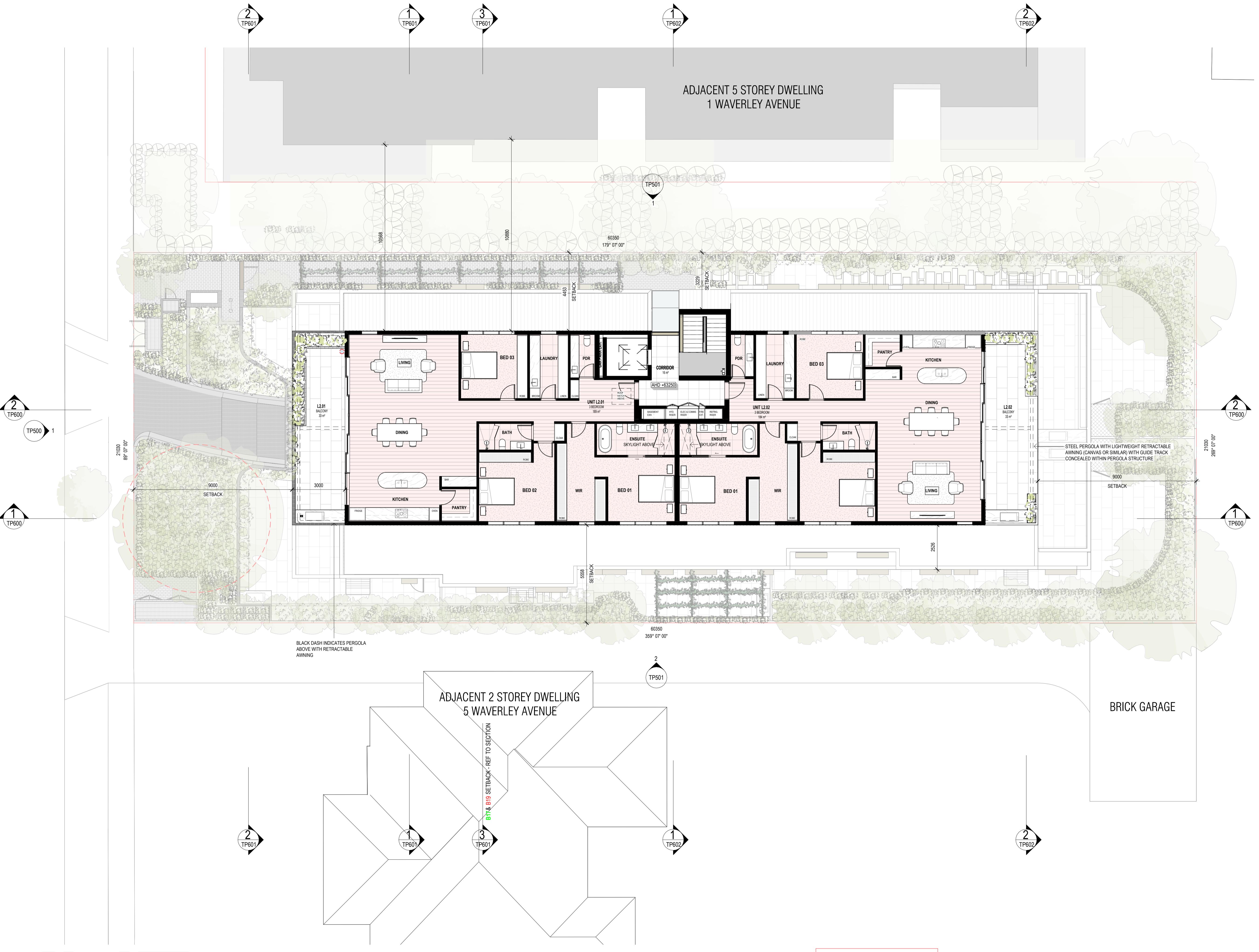
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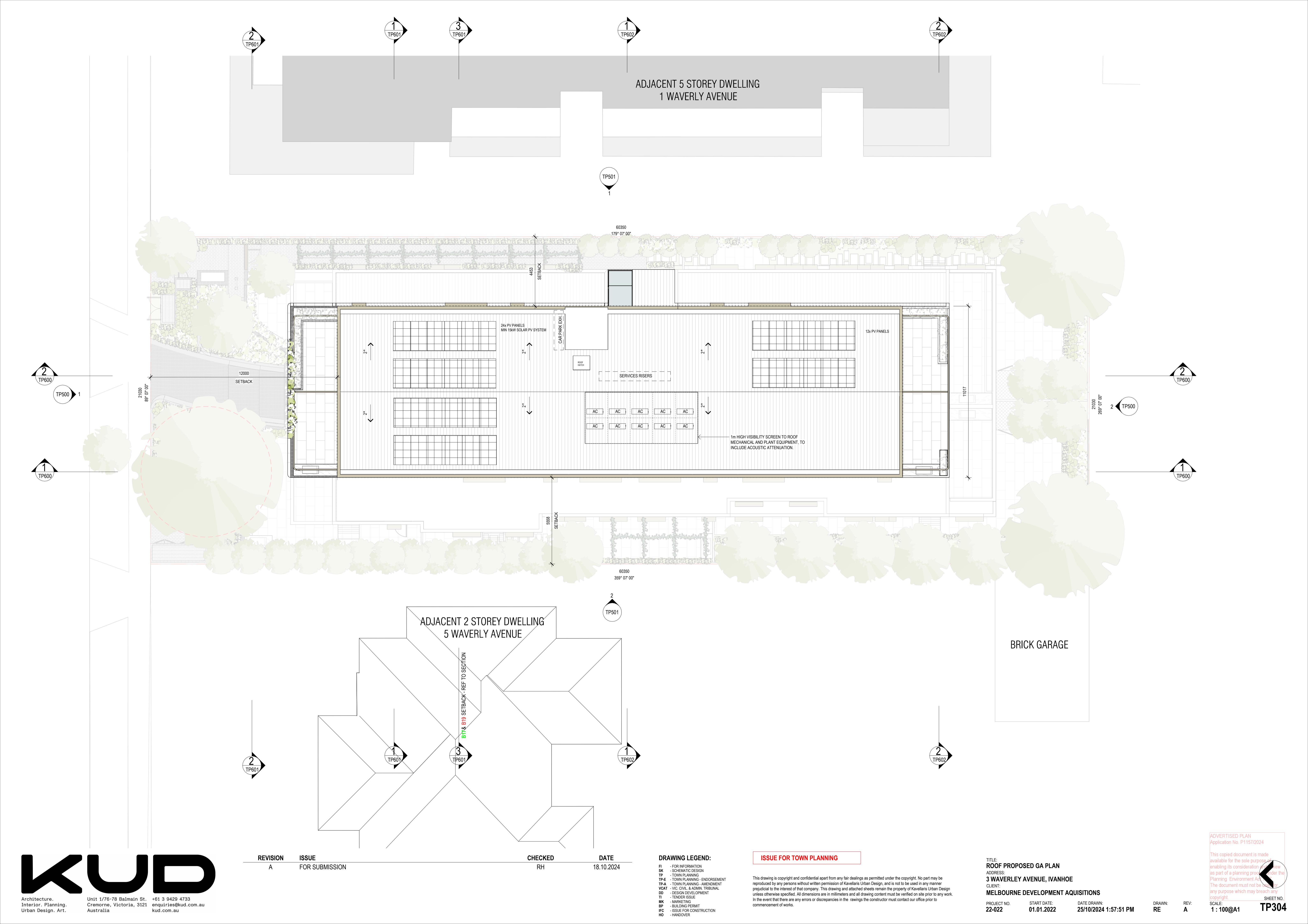
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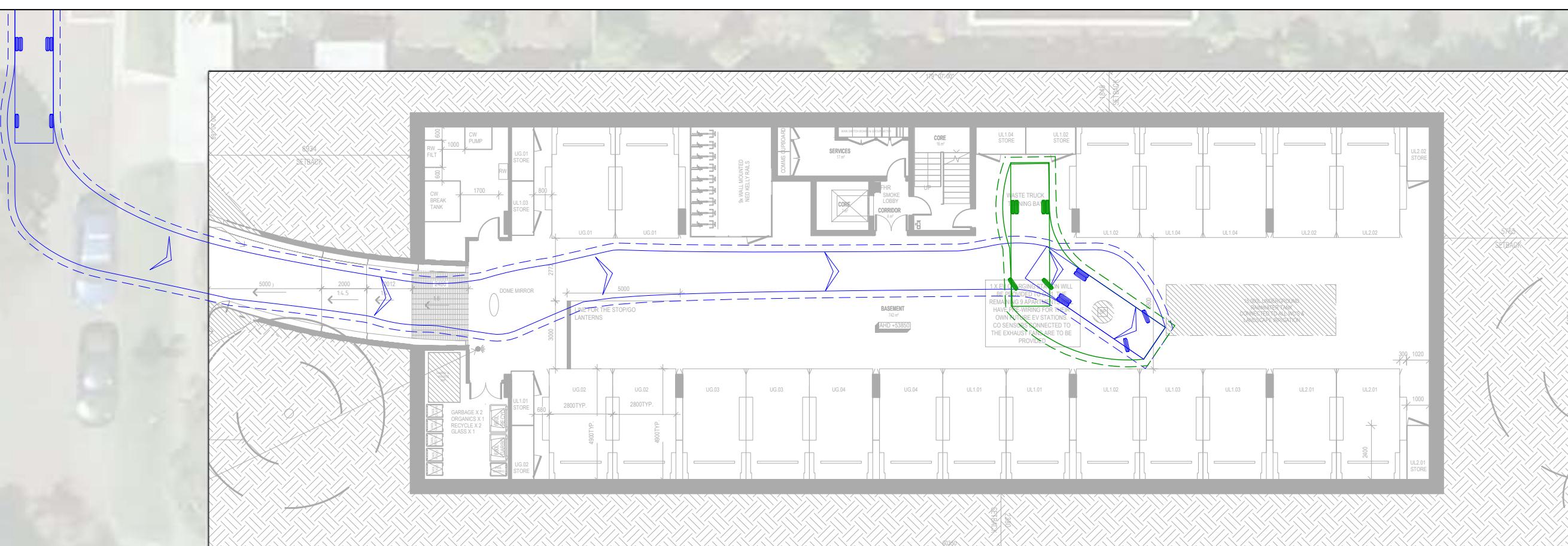


Appendix B : Swept Path Assessment

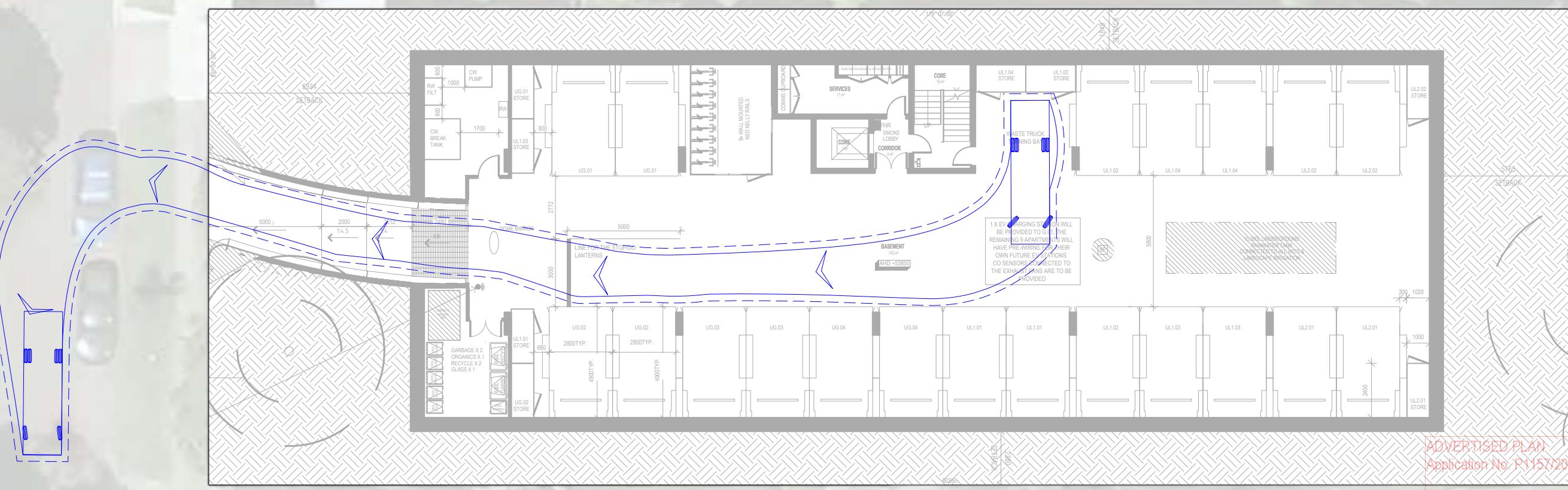
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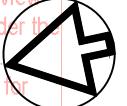


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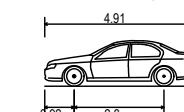
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8 GWYNNE STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

18/10/2024 12:51:00 PM

B85 Vehicle (AS/NZS2890.1:2004)



VEHICLE ENVELOPE (FORWARD)
300mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
300mm CLEARANCE (REVERSE)

Residential Development 3 Waverly Avenue, Ivanhoe Swept Path Assessment

NOTE:
1) Base Plan Supplied By KUD on 15/10/2024
2) Maximum Design Speed 10km/h

RATIO REFERENCE
19734T-SK001-M

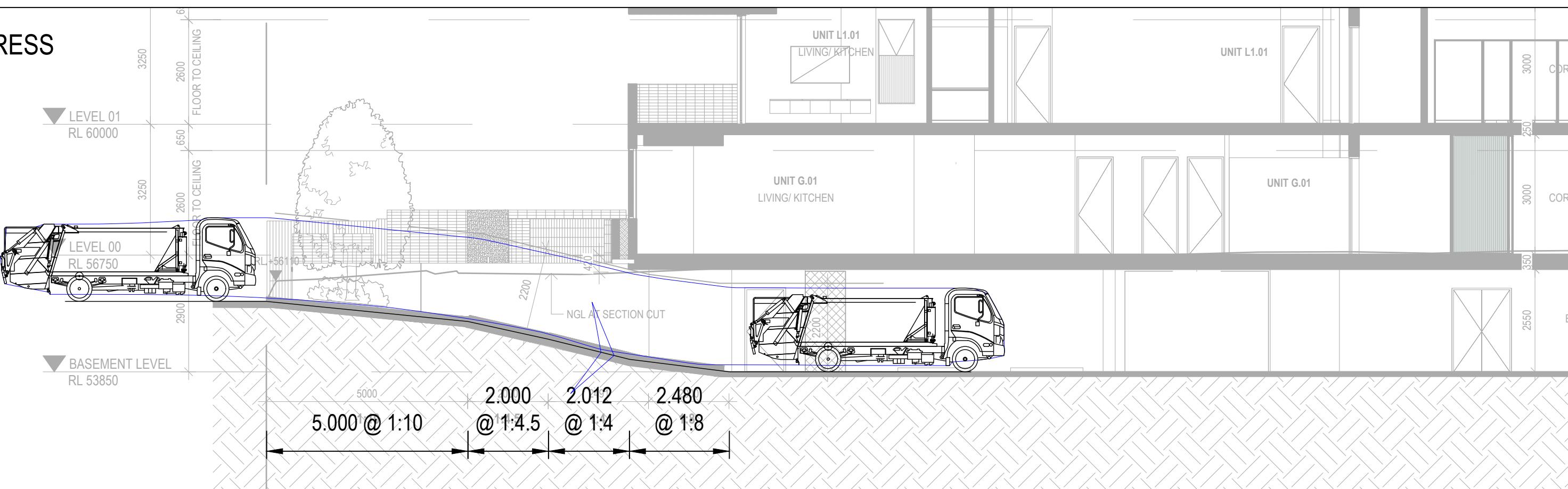
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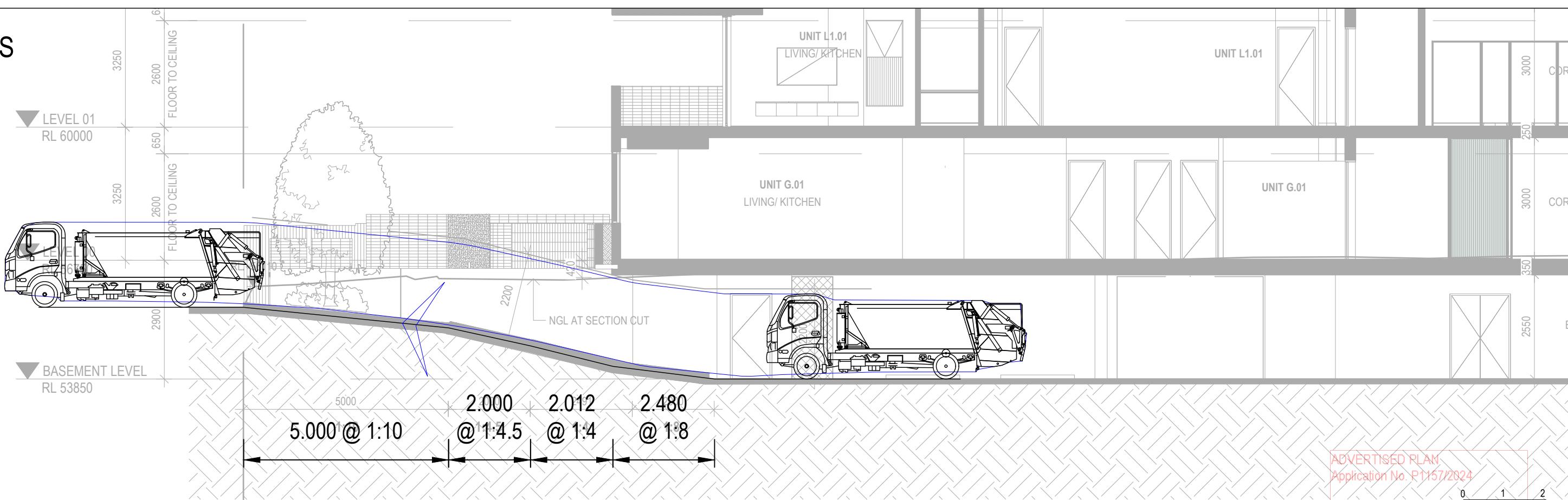
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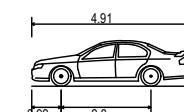
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B85 Vertical Model (AS/NZS2890.1:2004)



Overall Length 4.91m
Overall Width 1.87m
Overall Body Height 1.421m
Min Body Ground Clearance 0.120m
Track Width 1.770m
Lock to Lock Time 4.00 sec
Curb to Curb Turning Radius 8.000m

Residential Development 3 Waverly Avenue, Ivanhoe Vertical Clearance Assessment

NOTE:
1) Base Plan Supplied By KUD on 15/10/2024
2) Maximum Design Speed 10km/h

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