

CITY OF VINCENT
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WASTE MANAGEMENT PLAN



Project:

Client:

Project Address:

Date:

Mixed Use Development

C/- Bollig Design Group

**177 Scarborough Beach Road,
Mount Hawthorn**

March 2026

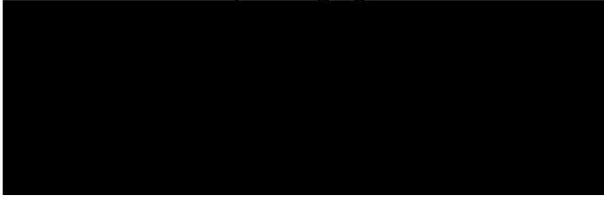


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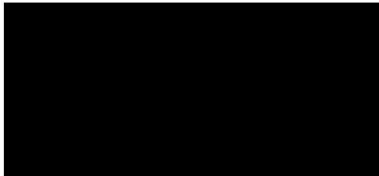


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1 EXECUTIVE SUMMARY

On behalf of its client, Bollig Design Group (BDG) is applying to the City of Vincent (the “City”) to develop a property at 177 Scarborough Beach Road, Mount Hawthorn. The development consists of 10 residential apartments and a commercial space.

As part of the Development Approval process, the proponent is required to submit a Waste Management Plan (WMP) for the development to the City. BDG employed the services of waste specialists Dallywater Consulting to investigate the City’s requirements in this regard and to develop this WMP.

Based on the City’s guidelines and feedback, and utilising the City’s collection services for all streams, the following methodology will be implemented for the solid waste servicing at 177 Scarborough Beach Road, Mount Hawthorn.

Residential

For the residential material:

- Use of 240 litre bins for garbage and recycling;
- Use of 240 litre bins for FOGO material;
- Weekly servicing of the garbage material;
- Weekly servicing of the FOGO material; and
- Fortnightly servicing of the recycling material.

These initiatives will result in the following requirements for receptacles;

- Garbage – Three 240 litre bins serviced weekly;
- FOGO - Five 240 litre bins serviced weekly; and
- Recycling – Eight 240 litre bins serviced fortnightly.

This will necessitate that sufficient room is provided in the residential bin store for a minimum of sixteen 240s.

Commercial

Based on café use with private collections, the following methodology will be adopted for the commercial waste;

- Use of 240 litre bins for the waste (i.e. combined garbage and FOGO material) and recycling material;
- Three services per week of the waste material; and
- Weekly collection of the recycling material.

These initiatives will result in the following requirements for receptacles;

- Waste – One 240 litre bin serviced three times per week; and
- Recycling – One 240 litre bin serviced weekly.

This will necessitate that sufficient room is provided in the commercial tenancy for two 240s.

Review

The above-mentioned waste servicing arrangements will be reviewed as a matter of course on an ongoing basis to ensure that the most efficient arrangements to manage the garbage, FOGO and recycling material generated by all aspects of the facility are in place and are maintained. For example, third-party private servicing of the waste and recycling (and possibly FOGO) components of the residential stream may be implemented in place of the City’s servicing of those materials.

DEFINITIONS

240: A 240-litre receptacle used by domestic residences and commercial premises within a local government municipality to deposit FOGO, garbage and recycling materials for emptying by the local government or a collection contractor.

360: A 360-litre receptacle used by domestic residences and commercial premises within a local government municipality to deposit recycling materials for emptying by the local government or a collection contractor.

FOGO (service): Food Organics and Garden Organics - a local government collection service for food and garden organic material.

Garbage: Any recyclable and non-recyclable discarded solid, semi-solid, liquid or contained gaseous materials not accepted by the local government's FOGO and recycling collection services.

Recycling: Any material accepted by a local government's recycling collection service or materials recovery facility.

Waste: Any recyclable and non-recyclable discarded solid, semi-solid, liquid or contained gaseous materials and food and garden organics not accepted by a local government's recycling collection service or a Materials Recovery Facility.

Waste Minimisation: A process to minimise the amount of waste requiring disposal via hierarchical activities such as behaviour and product modification, waste avoidance, reduction, reuse and recycling.

Total Waste Stream: The combined garbage, recyclables and FOGO.

2 INTRODUCTION

2.1 The Development

On behalf of its client, Bollig Design Group (BDG) is applying to the City of Vincent (the “City”) to develop a property at 177 Scarborough Beach Road, Mount Hawthorn. The development consists of 10 residential apartments and a commercial space.

As part of the Development Approval process, the proponent is required to submit a Waste Management Plan (WMP) for the development to the City. BDG employed the services of waste specialists Dallywater Consulting to investigate the City’s requirements in this regard and to develop this WMP.

Figure 1: Location Plan



Source: PlanWA 2024

Table 1: Units and Tenancies

Residential Units	Number
2-Bed	4
3-Bed	5
4-Bed	1
Total Units	10
Commercial Tenancy	Area (m ²)
Café*	25
Total Commercial Area	40m²

* Example use

A site plan of the development is included on the following page.

Figure 2: Site Plan

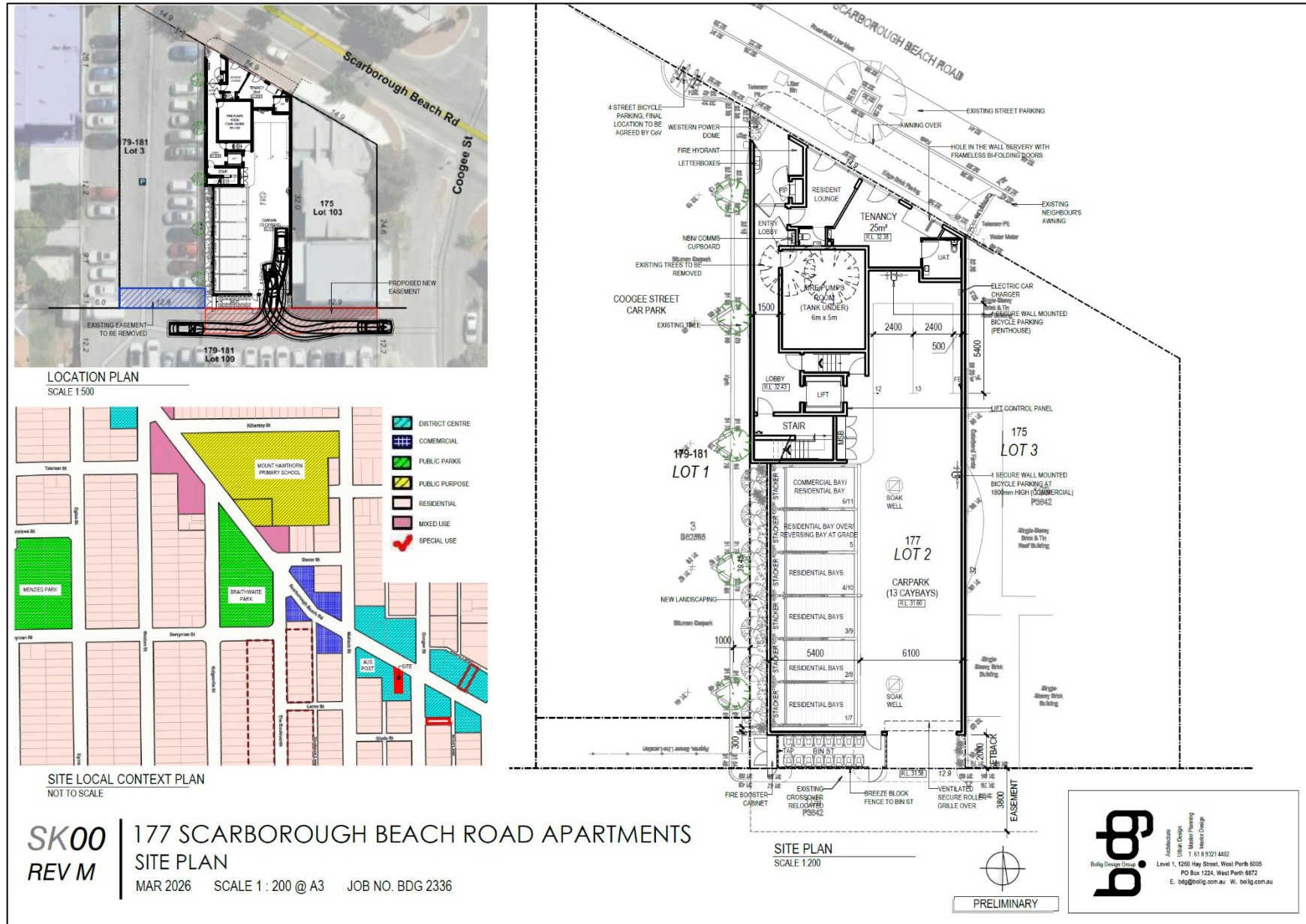


Figure 3: Levels 1-2 and Level 3 Floor Plans

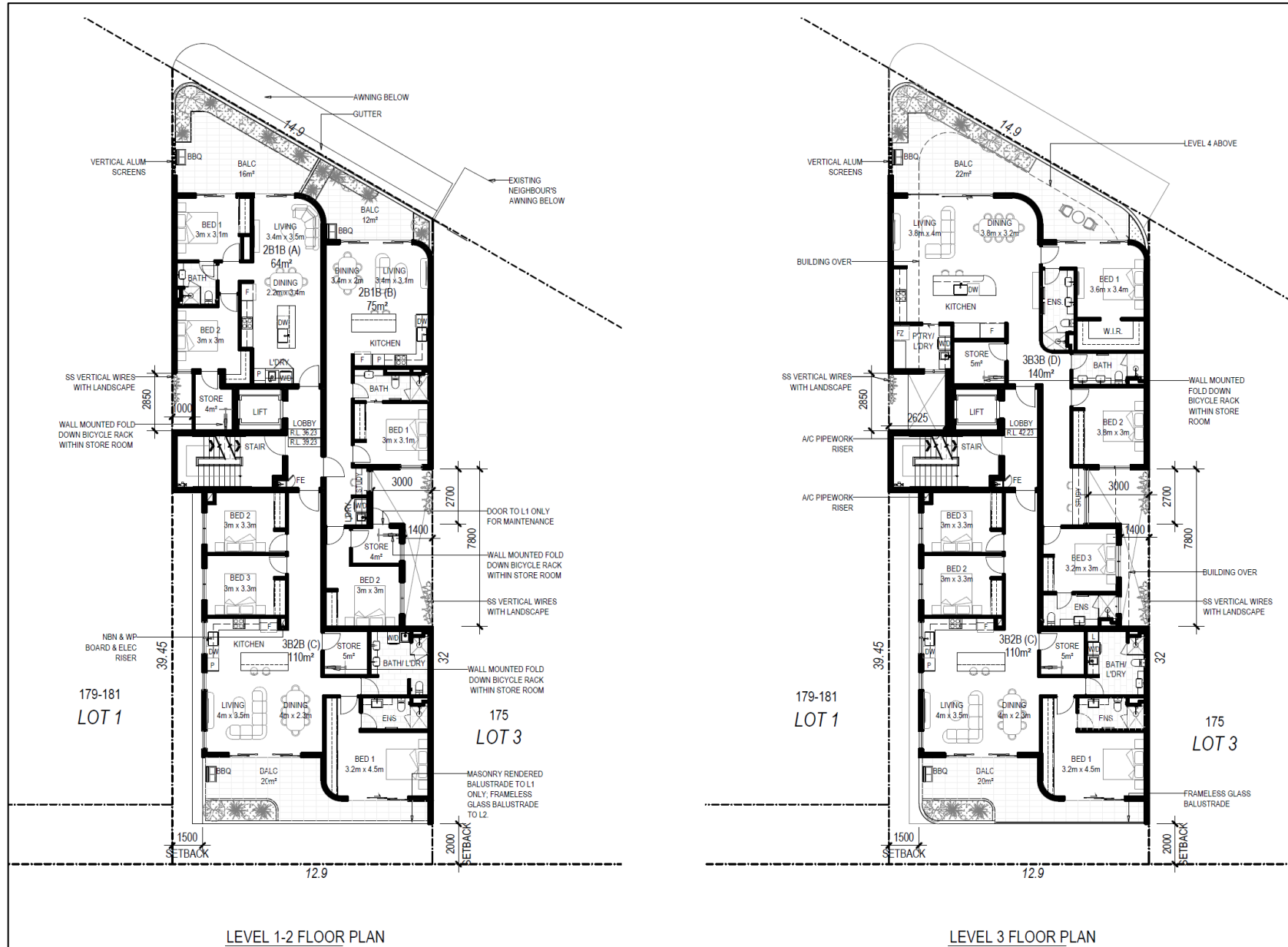
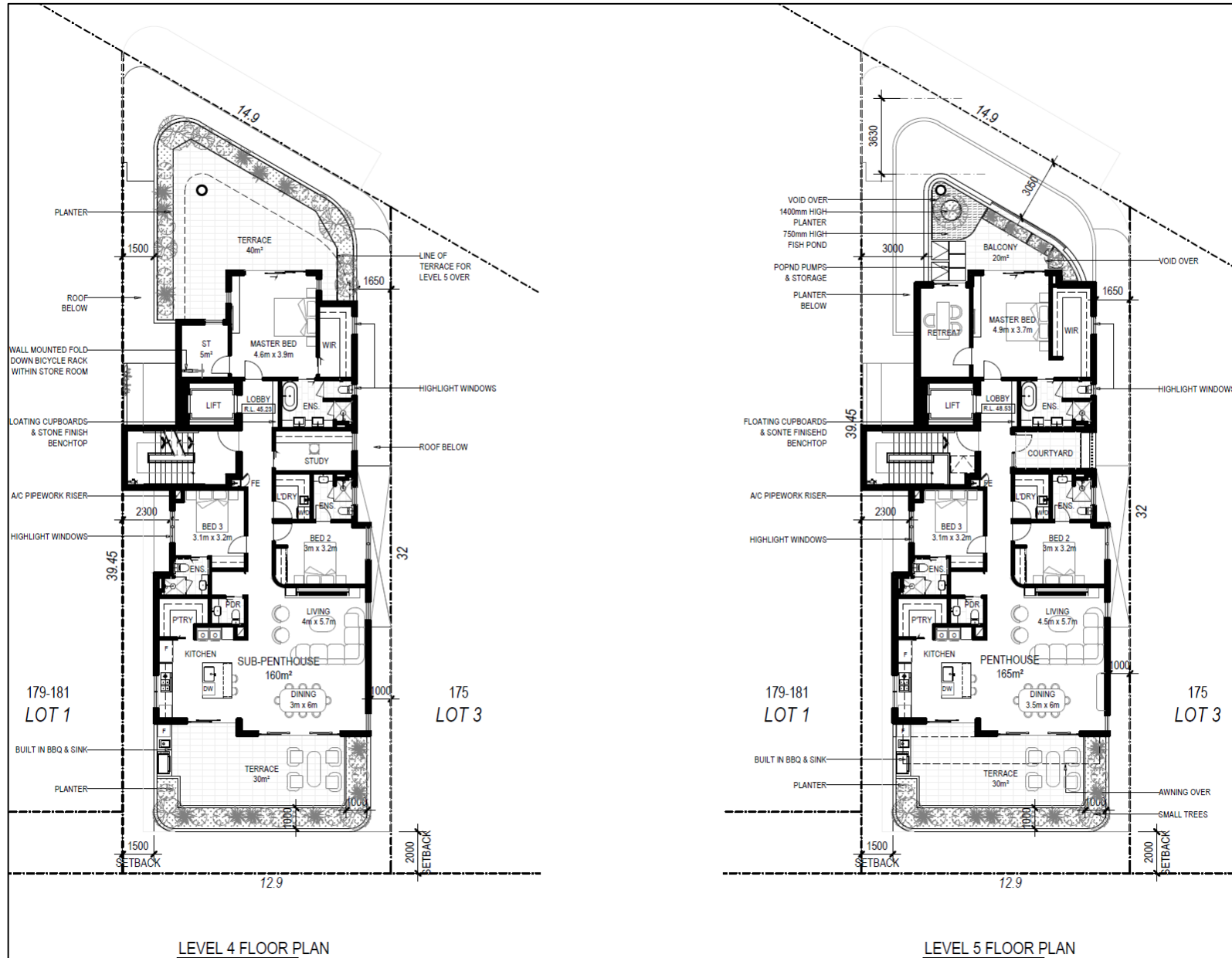


Figure 4: Levels 4 and 5 Floor Plans



2.2 Onsite Waste Management

The following provisions have been made for FOGO, waste and recycling on the site:

- **Residents**
 - Residents will be required to separate their waste into three streams, namely garbage, FOGO (food organics and garden organics) and recycling, and to take the garbage, FOGO and recycling material to the bin store located on the Ground Floor at the rear of the building.
 - Residents can then place their separated garbage, recycling and FOGO into bins provided for those materials by the Strata/Building Management.
- **Commercial Tenancy**
 - The commercial tenant will store their bins within the tenancy.
 - Subject to review of the residential bin servicing frequencies (and a reduction in the required number of residential bins), provision can be made to utilise a portion of the residential bin store for separate storage of commercial bins if required.
- **Bin Store**
 - The bin store is located on the ground level of the building and is accessible from the lift access on that level.
- **Hardwaste/Bulky Items**
 - Residents' own store areas include an area of approximately 0.9m² for the temporary storage of bulky items before removal or collection.
 - Residents and the commercial entity will be required to organise their own immediate disposal of large or bulky items not suitable for disposal to the bins in the bin store.
 - Temporary placement of a small skip bin (e.g. 3m³) may be possible within the surrounding carpark (with the approval of the City) for bulkier items or waste from renovations or fit outs etc.
- **Waste Collection**
 - The City provides collection services for residential garbage, FOGO and recycling.
 - The proponent may use private commercial collection services for the residential waste and recycling (and possible FOGO) components of the generated materials.
 - The commercial entity will be responsible for organising private contractors to service their bins unless an alternative in-house arrangement can be made with the strata management for those bins to be serviced.

3 LOCAL GOVERNMENT WASTE MANAGEMENT REQUIREMENTS

3.1 Waste Management Guidelines

The waste generation criteria have been sourced from the City's *Waste Guidelines for New Developments* (revised 2023 version).

Discussions were also had with (and advice received from) the City's Manager Waste and Recycling with regard to using privately contracted collections of two of the three waste streams (i.e. garbage and recycling) as well as collection methodologies at the street (i.e. bin placement and accessibility).

3.2 Waste Generation

The City requirements for the management of waste for this development are as follows:

- Servicing of the waste and recycling receptacles from the rear kerbed area within the carpark is preferred;
- Street servicing of the FOGO bins can be accommodated;
- Residential FOGO, garbage and recycling receptacles are to be provided in sufficient numbers to cater for the waste generation requirements detailed in the following tables; and
- If a FOGO service is not available to the development, that material would be included in the garbage bins (as is commonly current practice for non-FOGO serviced areas) and described as "waste".

Based on the City's Guidelines, the following tables demonstrate the estimated weekly generated volumes of FOGO, garbage and recycling for the residential and commercial portions of the development. In addition, the requirements for a 2-stream commercial service of waste (i.e. combined FOGO and garbage) and recycling have also been included at Table 3.

For the purposes of the assessment, a café use has been chosen for the commercial space to demonstrate the highest waste generation possible for that space. Lower uses such as retail or office space will generate significantly less material as is also demonstrated below.

Table 2: Residential Waste Generation Rates (with FOGO servicing)

Apartments		Garbage/unit/week	FOGO/unit/week	Recycling/unit/week
	No.	m ³	m ³	m ³
2-Bed	4	0.05	0.08	0.06
3-Bed	5	0.07	0.14	0.12
4-Bed	1	0.07	0.14	0.12
Total	10			

Table 3 - Commercial Waste Generation Rates

Comparison - Commercial Spaces	Area	Garbage /100m2/day	FOGO/100m2/day	Recycling/100m2/day
With FOGO Servicing	~m ²	m ³	m ³	m ³
Cafe	25	0.3	0.12	0.2
Retail (non-food)	25	0.05	-	0.025
Office	25	0.015	0.005	0.015
No FOGO Service		Waste/100m2/day (Garbage and FOGO)		Recycling/100m2/day
Cafe	25	0.42	-	0.2
Retail (non-food)	25	0.05	-	0.025
Office	25	0.02	-	0.015

3.3 Bin Store Requirements

The City's requirements for bin stores are as follows:

- Should be adequate to house all bins with sufficient area to ensure that access is available at all times for users to part or empty bins for all streams.
- Be provided with a permanent water supply and drainage to sewer with washdown facilities.
- Out of sight and well screened from public areas.
- Design is to be consistent with the development.
- Be easily accessible to allow for the removal of the receptacles.

3.4 Bin Presentation

- Residential bins are to be presented for servicing by Strata/Building Management staff, and returned to the stores by those staff as soon as is practicable after they have been serviced.
- Unless otherwise arranged with the Strata/Building Management, commercial bins are to be presented for collection and recovered by the commercial entity.
- Bins are to be accessible such that there is unobstructed access for the collection vehicle at the time of servicing.

3.5 Waste Capacity

Residential

Based on the above requirements, the weekly storage capacities required for FOGO, garbage and recycling material generated by the residential portion of the proposed development are detailed in the following table.

Table 4: Estimated Weekly Residential Material Volumes (with FOGO servicing)

Apartments		Garbage	FOGO	Recycling	Garbage /week	FOGO /week	Recycling /week
	No.	m ³ /unit/week	m ³ /unit/week	m ³ /unit/week	m ³	m ³	m ³
2-Bed	4	0.05	0.08	0.06	0.2	0.32	0.24
3-Bed	5	0.07	0.14	0.12	0.35	0.7	0.6
4-Bed	1	0.07	0.14	0.12	0.07	0.14	0.12
Total	10				0.62	1.16	0.96

With fortnightly servicing of the recycling bins, the fortnightly volumes for that material would be 1.92m³ of recycling.

Commercial

The weekly storage capacities required for FOGO, garbage and recycling material generated by the commercial portion of the proposed development are detailed in the following table.

Table 5: Estimated Weekly Commercial Material Volumes (with FOGO servicing)

Comparison - Commercial Spaces	Area	Garbage Rate	FOGO Rate	Recycling Rate	Garbage /week	FOGO /week	Recycling /week
	~m ²	m ³ /100m ² /day	m ³ /100m ² /day	m ³ /100m ² /day	m ³	m ³	m ³
Cafe	25	0.3	0.12	0.2	0.53	0.21	0.35
Retail	25	0.05	0	0.025	0.08	0.00	0.04
Office	25	0.015	0.005	0.015	0.03	0.01	0.03
Total - Cafe	25				0.53	0.21	0.35

It is noted that the generation example used for the commercial material volumes is for Café use.

Table 6 below shows the capacity required for the weekly commercial café generation without FOGO servicing (i.e. for waste and recycling).

Table 6: Estimated Weekly Commercial Material Volumes (without FOGO servicing)

Commercial Spaces	Area	Waste (Garbage + FOGO)	Recycling	Waste/week	Recycling/week
	~m ²	m ³ /100m ² /day	m ³ /100m ² /day	m ³	m ³
Cafe	25	0.42	0.20	1.08	0.43
Total				1.18	0.56

3.6 Number of Bins

Residential

Based on the estimated volumes of materials, the number of receptacles required to cater for the weekly volumes for the residential portion of the development are detailed in the following table. Note that;

- The FOGO cubic metre figure represents the weekly volume;
- The garbage cubic metre figure is the weekly volume;
- The recycling figure is the fortnightly volume; and
- The bin figures have been rounded up.

Table 7: Required Residential Bin Capacity (with FOGO)

Residential	Garbage/week	FOGO/week	Recycling/fortnight
Generation (m³)	0.62	1.16	1.92
Receptacles			
No. of 240 litre receptacles	2.60	4.80	n/a
No. of 360 litre receptacles	n/a	n/a	5.40
TOTAL BINS	3 x 240 litre	5 x 240 litre	8 x 240 litre or 6 x 360 litre

Commercial

Based on the estimated volumes of materials, the number of receptacles required to cater for the weekly volumes for the commercial portion of the development are detailed in the following tables.

Table 8: Required Commercial Bin Capacity (with FOGO servicing)

Commercial	Garbage/week	FOGO/week	Recycling/week
Café Generation (m³)	0.53	0.21	0.35
Receptacles			
No. of 240 litre receptacles	2.2	0.9	1
TOTAL BINS	3 x 240 litre	1 x 240 litre	1 x 240 litre

Table 9: Required Commercial Bin Capacity (without FOGO servicing)

	Waste/week (Garbage + FOGO)	Recycling/week
Weekly Generation (m³)	0.74	0.56
Receptacles/Week		
No. of 240 litre receptacles	3.1	1
TOTAL BINS	4 x 240 litre	1 x 240 litre

The above commercial calculations have been based on the highest generating use of Café. Lesser generating uses will obviously result in a requirement for a lesser number of bins. Use of the space as an office for instance, would require only one 240 litre waste (i.e. combined FOGO and garbage) bin and one 240 litre recycling bin.

3.7 Reducing Bin Numbers

Residential - Based on the calculated residential generation rates and the use of 240 litre bins, with weekly collections of the FOGO and garbage and fortnightly servicing of the recycling, three garbage, five FOGO and eight recycling bins would be required. Thus, the bin store would be required to house sixteen bins.

The City may consider providing residential waste collections up to 2 times per week. Twice-weekly servicing of the waste could reduce the number of those bins to two bins, requiring only fifteen 240s to be accommodated in the store.

The City has also indicated support for the use of third-party private contractors by the Strata Management to enable more frequent servicing of the waste and recycling from the development (i.e. the City would still service the FOGO bins), thus reducing the number of bins required to service the development. For example, increasing the recycling servicing to weekly would see the reduction in presented recycling bins to four per week.

Commercial - For the commercial material, the use of private collection contractors can realise additional collections of all streams each week. If each stream was collected five times per week (e.g. for a café use and no FOGO servicing), storage would only be required for two 240 litre bins (i.e. one waste and one recycling).

A commercial use with less waste generation would require less bins and servicing (e.g. office use would require weekly servicing of one waste and one recycling bin).

3.8 Summary

Based on the above, and utilising the City's collection services for all streams, the following methodology will be implemented for the solid waste servicing at 177 Scarborough Beach Road, Mount Hawthorn.

Residential

For the residential material:

- Use of 240 litre bins for garbage and recycling;
- Use of 240 litre bins for FOGO material;
- Weekly servicing of the garbage material;
- Weekly servicing of the FOGO material; and
- Fortnightly servicing of the recycling material.

These initiatives will result in the following requirements for receptacles;

- Garbage – Three 240 litre bins serviced weekly;
- FOGO - Five 240 litre bins serviced weekly; and
- Recycling – Eight 240 litre bins serviced fortnightly.

This will necessitate that sufficient room is provided in the residential bin store for a minimum of sixteen 240s.

Commercial

Based on café use with private collections, the following methodology will be adopted for the commercial waste;

- Use of 240 litre bins for the waste (i.e. combined garbage and FOGO material) and recycling material;
- Three services per week of the waste material; and
- Weekly collection of the recycling.

These initiatives will result in the following requirements for receptacles;

- Waste – One 240 litre bin serviced three times per week; and
- Recycling – One 240 litre bin serviced weekly.

This will necessitate that sufficient room is provided in the commercial tenancy for two 240s.

Review

The above-mentioned waste servicing arrangements are indicative only and will be reviewed as a matter of course on an ongoing basis to ensure that the most efficient arrangements to manage the garbage, FOGO and recycling material generated by all aspects of the facility are adopted. For example, third-party private servicing of the waste and recycling components of the residential stream may be implemented at occupation.

4 BIN STORAGE AND MANAGEMENT

4.1 Bin Compound/Store

The residential bin store is located on the ground floor at the rear of the development. The commercial entity will house its bins within the tenancy.

The location of the store and its internal washdown is depicted in Figure 5 on the following page.

4.2 Bin Store Specifications

The bin store has been designed to meet the City's specifications and are of sufficient size to be able accommodate all receptacles.

- Bins will be sited behind ventilated grilles;
- Construction of solid walls will be brick, concrete, corrugated compressed fibre cement sheet or other suitable impervious material;
- A tap connected to an adequate supply of water and a floor waste connected to the public sewer is to be installed at the end of the stores;
- The floors of the stores are to be smooth and impervious and graded to drain to the washdown floor waste; and
- The design of the store will allow for easy and safe access for the removal of all receptacles.

4.3 Amenity

The store has been designed so that it;

- is well ventilated;
- can be kept thoroughly clean and disinfected; and
- is consistent with the overall aesthetics of the development.

4.4 Bin Management

Strata/Building Management staff or their nominated personnel/contractors will coordinate the management of waste throughout the facility and as such, will be aware of the expectations regarding use of the bins and store.

Those personnel will be responsible for ensuring that the residential bins and the bin store are monitored daily and cleaned as required. They will also be required to monitor the usage of the bins to ensure residents are disposing of material correctly (i.e. correct disposal of materials, use of the bins and store etc).

These personnel will also be charged with monitoring the commercial entity to ensure that its bins are kept clean and maintained. The responsibility for maintaining the cleanliness of the bins will be the responsibility of the commercial tenant unless otherwise negotiated with the Strata/Building Management.

4.5 Bin Presentation and Servicing

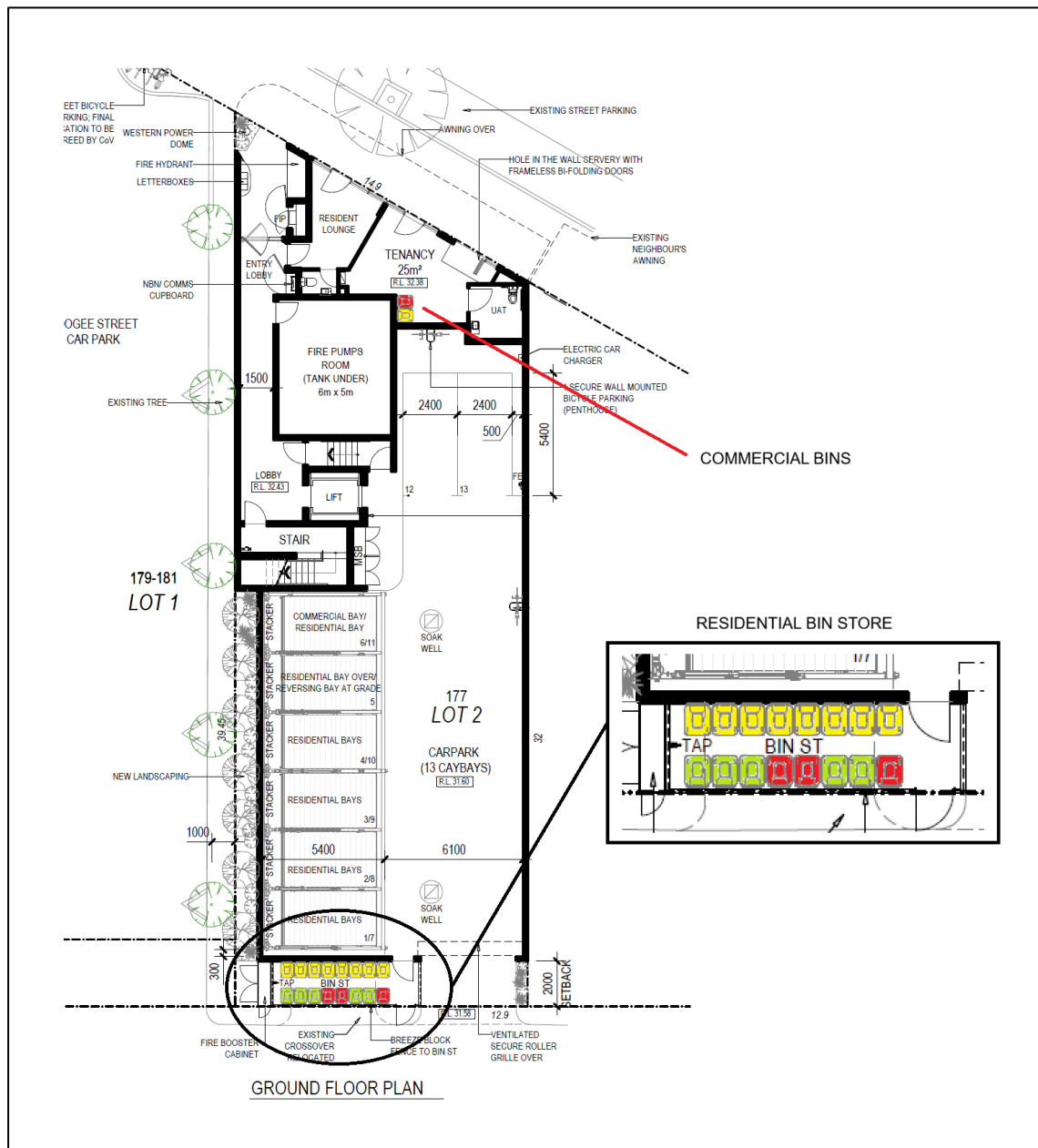
Servicing of bins will be as per the following arrangements:

Presentation

- On collection day, prior to the servicing time, residential garbage and recycling bins will be taken from the bin store by Strata/Building Management personnel, wheeled to the outside rear of the building alongside the adjacent commercial premises (which faces Coogee Street) and placed against the wall behind the kerb (see Figure 6).
- FOGO bins will be presented to the kerbside on Coogee Street, in front of the adjacent commercial premises.

Alternatively, if private collection contractors are used, the vehicle operators would access the residential bins directly via the rear door of the store.

Figure 5: Bin Storage



Servicing

- To prevent any conflict with traffic in the adjacent road reserves, the collection vehicle (e.g. rear load) will enter the rear carpark area to service the garbage and recycling bins from within the carpark. As soon as practicable after collection has occurred, the bins will be returned to the store by Strata/Building Management personnel. Alternatively, private servicing would occur directly from the bin store.
- The FOGO bins will be serviced by the City's side-arm service from the Coogee Street road reserve and, as soon as practicable after collection has occurred, the bins will be returned to the store by Strata/Building Management personnel. Alternatively, private FOGO servicing would also occur directly from the bin store.
- For the commercial bins, and unless otherwise negotiated with the building management entity, the commercial entity's staff will be required to present its bins to the same locations for servicing and to return the bins to their tenancy as soon as they have been emptied.

4.6 Signage

Best practice facility bin management and material separation signage will be installed to the bin store area.

5 WASTE MANAGEMENT RESPONSIBILITIES

5.1 Building Owners/Management

The building owners and their Strata/Building Management have responsibility for ensuring that the residential and commercial waste management activities for this development are appropriately conducted in accordance (at a minimum) with this Waste Management Plan, to ensure that they and the residents and tenants meet their waste management responsibilities.

The Strata/Building Management must allocate responsibility for all waste management activities to a Grounds person, Building Caretaker or Cleaner (Waste Person). This position will be responsible on behalf of the Strata/Building Management for the management of waste throughout the complex and they will be trained in all facets of the role.

Residents' strata and tenants' agreements or arrangements should include an undertaking by those parties to observe the requirements and responsibilities outlined in this document.

5.2 Waste Management Staff

At a minimum, the waste personnel will undertake the following bin servicing and waste management functions;

- Regular inspection of all residential bins;
- Regular cleaning of the residential bins and bin store;
- Ensuring presentation of all residential (and with agreement, commercial) bins on collection days;
- Returning the bins as soon as practicable to the bin store after they have been emptied; and
- Assistance with bin movement for operators (if required and negotiated).

In addition, the waste education of incoming residents and commercial tenant/entity will be a priority for these staff.

5.3 Residents and Commercial Entity

All residents and the commercial entity would be instructed via the Strata/Building Management of the various waste requirements. This would include direction on the use of the bin facility and expectations of the managing body with regards to any recycling or waste diversion.

In the absence of any other individual arrangement with the Building Management and their waste personnel, residents and the commercial entity (and their contractors) would be responsible for the immediate removal and disposal off-site of any waste unsuitable for placement in the bins. This would include large bulky waste and electronic items and waste from any building maintenance activities.

It is suggested that the Strata/Building Management entity include specific resident and commercial entity responsibilities for management and separation of the waste streams in the strata arrangements.

For the commercial space, unless negotiated with the Building Management, storage of wastes not suitable for disposal to the bins in the bin store must be managed separately within the tenant's own space and in an industry recognised best practice storage manner (e.g. waste cooking oils and fats in bunded and leakproof containers) and removal of those materials will be the responsibility of the commercial entity.

The commercial entity will be responsible for maintaining the commercial bins and their storage to the satisfaction of the Strata/Building Management and the City.

6 REFERENCES

1. City of Vincent: *Waste Guidelines for New Developments* (revised 2023)