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Maroubra

Operational Waste Management Plan

195-213 Fitzgerald Avenue and 40-64 Yorktown Parade

October 2024

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1. Introduction

This Operational Waste Management Plan (OWMP) has been prepared by Waste Audit & Consultancy Services (Aust) on behalf of Homes NSW for a State Significant Development Application (SSD-71454960) for the redevelopment of existing social housing (the Project) at 195-213 Fitzgerald Avenue and 40-64 Yorktown Parade, Maroubra (the Site). The Project involves the replacement of the 33 social housing units across eight 2 storey apartment buildings and a single storey dwelling with 144 units across four 3 storey buildings and two part 3/part 4 storey buildings.

The purpose of this Operational Waste Management Plan (OWMP) is to provide guidance on expected operational general waste and recycling volumes; storage area requirements; bins and equipment; site and contractor handling and collection practices, and management systems and responsibilities and to address the Secretary’s Environmental Assessment Requirements (SEARs) for the project issued on 6 June 2024 which identified the following specific assessment requirements:

Table 1. Operational Waste SEARs

SEARs Requirement 17. Waste Management	Section Addressing SEARs Requirement
Identify appropriate servicing arrangements for the site	Addressed throughout the report

2. Project Overview

The Site is located within the Randwick City Council local government area (LGA) and is zoned R3 Medium Density Residential under the *Randwick Local Environmental Plan* (LEP) 2012.

The Site has a total area of approximately 9,596 square metres (sqm) with frontages to Fitzgerald Avenue to the north and Yorktown Parade to the south. Refer to Figure 1.

The existing buildings on the Site are currently occupied. There are street trees located along the Fitzgerald Avenue frontage and a series of trees within the Site between the buildings and along both street frontages. The site is accessible by public transport with services that run along Fitzgerald Avenue with frequent services to Maroubra town centre and Bondi Junction, with connecting services to Sydney CBD.

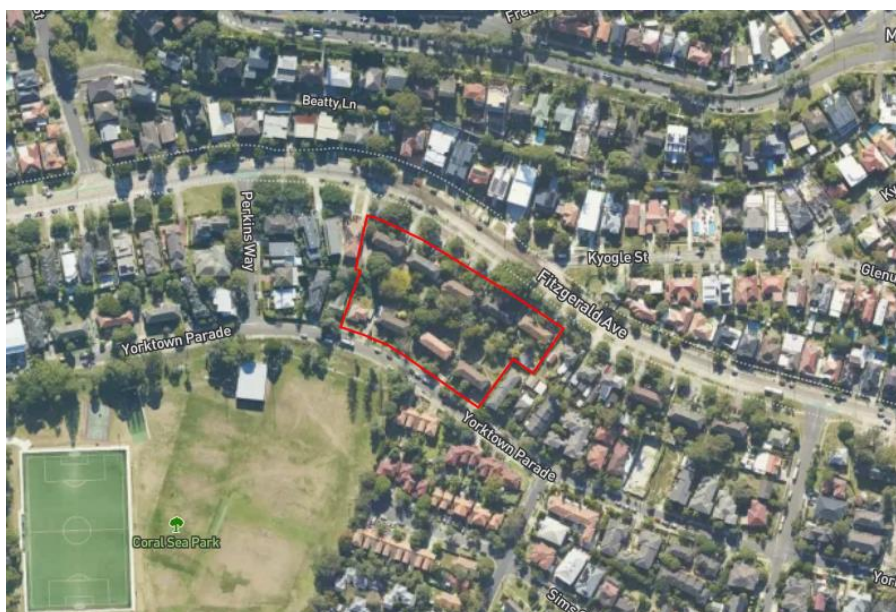


Figure 1: Site Location

The proposed development comprises demolition of existing buildings and the construction of four 3 storey and two part 3/part 4 storey residential flat buildings to accommodate 144 social and affordable housing apartments, a communal room and a single level basement car park including bulk earthworks, tree removal and associated landscaping and public domain works.

Refer to proposed Site Plan below:

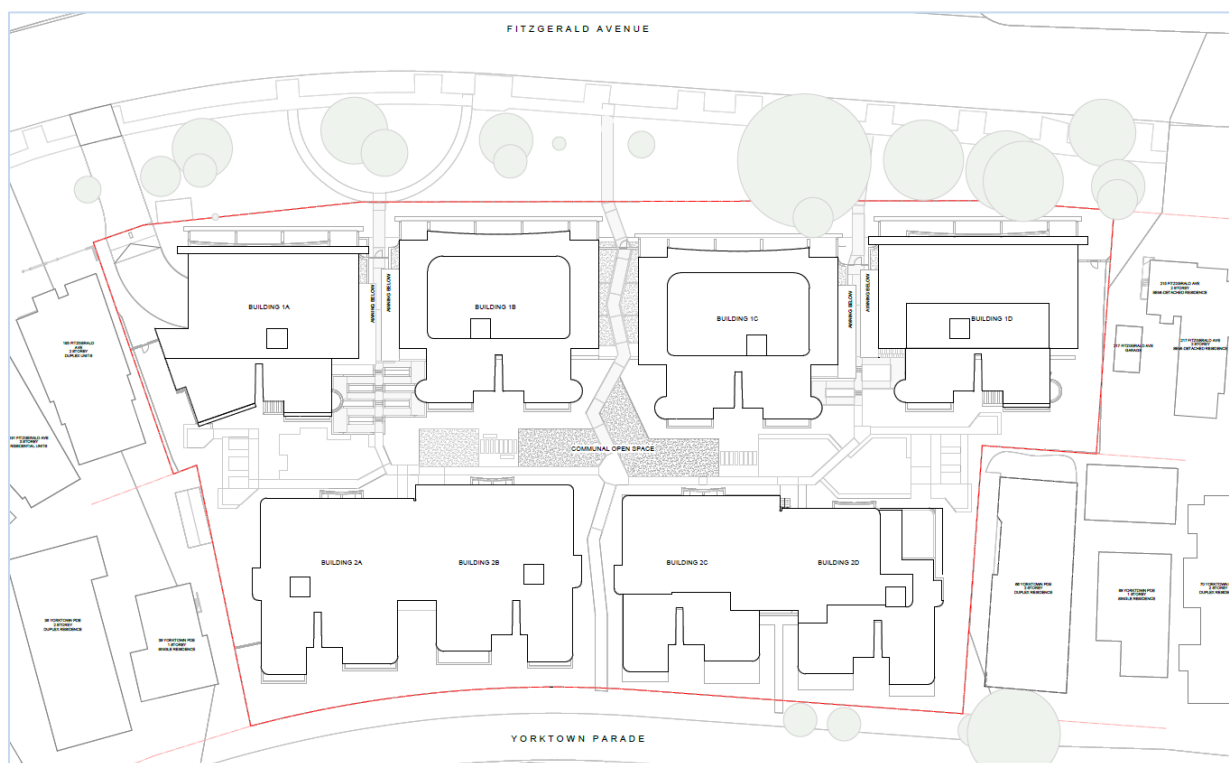


Figure 2: Site Plan

3. Reference Documents & Standards

The following documents have been used as references in compiling this OWMP:

- Randwick City Council - Waste Management Plan for Proposed Developments
- City of Sydney Guidelines for Waste Minimisation in New Developments 2018
- Resource NSW Better Practice Guide to Waste Management in Multi-Unit Dwellings
- Planning Secretary's Environmental Assessment Requirements dated 06/06/2024

The City of Sydney generation rates represent 'best practice' and are defaulted to, where further generation rates are required.

4. Residential General Waste & Recycling Generation

4.1 Resource Streams

The following generation rates are taken from the Randwick City Council - Waste Management Plan for Proposed Developments; Section 6 - Medium-Rise Developments (Appendix 4) and have been used to calculate the volumes of materials that will be produced from the development's operations.

Table 2: Materials Generation Factors

Material Stream	Tenancy Type	Generation Factor/Area Requirement
General Waste	Residential	One 240L MGB for garbage, on a ratio of one bin per two dwellings
Mixed Recycling	Residential	One 240L MGB for recycling, on a ratio of one bin per two dwellings
FOGO	Residential	60 L/week green waste
Bulky Waste	Residential	Sufficient space is provided for the storage of bulky items
Garden Organics	Residential	Will be removed by garden maintenance contractor

4.2 Total Materials Generated

Table 3 shows the expected volumes of materials generated by the development in litres per week. These have been calculated using the materials generation rates shown in Table 2.

Table 3: Residential General Waste, Recycling and Organics

Residential Streams	Bins size (L)	Bin No.	Weekly Capacity (L)	Weekly Generation (L)	Collections per Week	Storage (m2)
General Waste	240	72	17,280	17,280	1	30.7
*Recycling	240	72	8,640	8,640	0.5	30.7
FOGO	240	36	8,640	8,640	1	15.3
Total		180	25,920	25,920		76.7
Total Storage Room Area (+20% movement and circulation)						92.0 m2
Total proposed current room allocated for waste storage across the entire site.						144.0 m2

*Council mandates recycling to be collected fortnightly. It is considered there will be ample storage capacity where there is one (240 litre) bin per two dwellings.

5. Residential General Waste & Recycling Strategy

All general waste, recyclables and organics will be stored in the bin storage rooms located at street level of each of the buildings.

All residents will have access to their own waste storage rooms within their building core. Residents will use the stairwells and walkways to deposit their own waste inside the correct bins inside their allocated waste room.

All materials will be stored in 240-litre Mobile Garbage Bins (MGBs) and collected by the Maroubra council from the kerbside once per week for general waste/ organics and once per fortnight for recycling. 240-litre bins will be provided for as required. Recommended equipment, collection frequencies, and floor areas required for bin storage are shown in Table 3.

5.1 Room Sizing & Equipment

Residential general waste, recycling and where required organics will be stored in eight separate storage rooms, one room per core, in close proximity to their selected collection point either on Yorktown Parade or Fitzgerald Avenue. All waste will be stored at street level, with the exception of cores 2C and 2D, which will be accessible at grade.

Waste room sizes are in accordance with both the Randwick City Council DCP and the City of Sydney's Guidelines for Waste Management in New Developments. Waste storage is further expanded upon in Appendix 1.

5.2 Bulky Wastes

Each waste room contains a partitioned or caged area for the storage of residential bulky waste (furniture, household goods, mattresses, etc.) and other items that are too large for disposal in the site's various MGBs. These items will be collected by Maroubra council collectors, by prior arrangement, as part of their hard waste collection service provided to all residential properties in the municipality.

5.3 Additional Waste Management Practices

Additional waste management practices that will be used within the development are as follows:

- Gardeners are required to remove their own waste from site when they leave
- Communal areas to remain bin-less and influence residents to 'take their waste with them'
- The monitoring, by management, of the bin area and the help with waste placement
- The monitoring, by management, of bulky goods and the help with storage

6. Access, Collection Arrangements, & Bin Loading

All waste, recycling and organics will be stored in the bin storage rooms on ground floor and basement. The waste and recycling collected by the bins will remain inside the bin storage rooms on ground floor until prior to the collection day.

The day before the designated collection day, the caretaker will transfer the waste, recycling and organics bins from the eight waste storage rooms to the four temporary kerbside collection areas, indicated in Appendix 1, to await collection by council.

Once all bins have been collected and emptied by council, the waste collection contractors will return the bins to the temporary collection area. The caretaker will then transfer the bins back to their respective storage areas. At any one collection time there will be up to 72 bins presented to kerbside, in five (5) lots of up to 14 bins per collection area. Please see Appendix 1 for detailed waste/recycling bin movement pathways.

7. Maroubra Waste Storage Area Requirements

The following requirements are taken from the Randwick City Council - Waste Management Plan for Proposed Developments and apply to general waste and recycling storage areas for all residential developments:

- Garbage and Recycling Enclosure (typically a centralised communal compound located to the rear or side of the property); or alternatively
- Garbage and Recycling Room (typically a communal room located within the main building's undercroft or sub-basement).
- Space shall be provided in the Garbage and Recycling Enclosure / Room for the storage of all waste bins.
- Where onsite collection is to occur, an area for the placement of bulky items suitable for collection during Clean Up days shall be provided in the Garbage and Recycling Enclosure / Room.
- The waste storage facility shall be located entirely within each property boundary.
- Waste storage facilities shall be located in positions that will:
 - Permit easy, direct and convenient access for the users of the facility; and
 - Permit easy transfer of bins to the kerbside or to the onsite collection point.
- The waste storage facility is to be located in a suitable location so as to avoid vandalism, nuisance and visual clutter.
- The waste storage facility should not be located between the front alignment of the building and the road.

- The waste storage facility must comply with the Building Code of Australia (BCA) and relevant Australian Standards.
- Council approved signage shall be used in all communal waste storage facilities to inform users of the appropriate bins for disposing of waste and guidance for the separation of garbage, recyclables and green waste.
- Sufficient space must be provided in all developments for all equipment to handle, store and transfer to the collection point the waste likely to be generated on each premises;
- The space allocated must be sufficient to store, in separate bins, the volume of garbage and recycling (and green waste where appropriate) likely to be generated at the development during the period between collections;
- Where onsite collection is proposed, space for the placement of bulky items suitable for collection on Clean –Up days, shall be provided adjacent to the waste storage facility;
- Council supports composting. Space for composting facilities should be provided in all developments where possible. Composting areas should be located in consideration of:
 - the positioning of dwellings (onsite and in adjoining properties);
 - potential for odour generation; and
 - the location of the site drainage.
- Space, with the capacity to store at least 1-days, worth of waste, must be allocated inside each residence.

8. Waste Management Principles

The following waste hierarchy has been used to guide this OWMP:

Avoid and Reduce

Purchase materials that have minimal packaging requiring recycling, treatment, or disposal
Ensure that wherever possible, materials are reused either on site or offsite:

- Identify and put systems in place to separate and store materials that can be reused onsite
- Identify the potential applications for reuse offsite and facilitate this process

Recycle and Recover

Identify all recyclable waste products to be produced on site:

- Provide clear signage to ensure recyclable materials are separated
- Process the material for recycling either onsite or offsite

Treatment and Disposal

Waste products which cannot be reused or recycled will be removed and treated/disposed of at appropriately licensed facilities, ensuring the following:

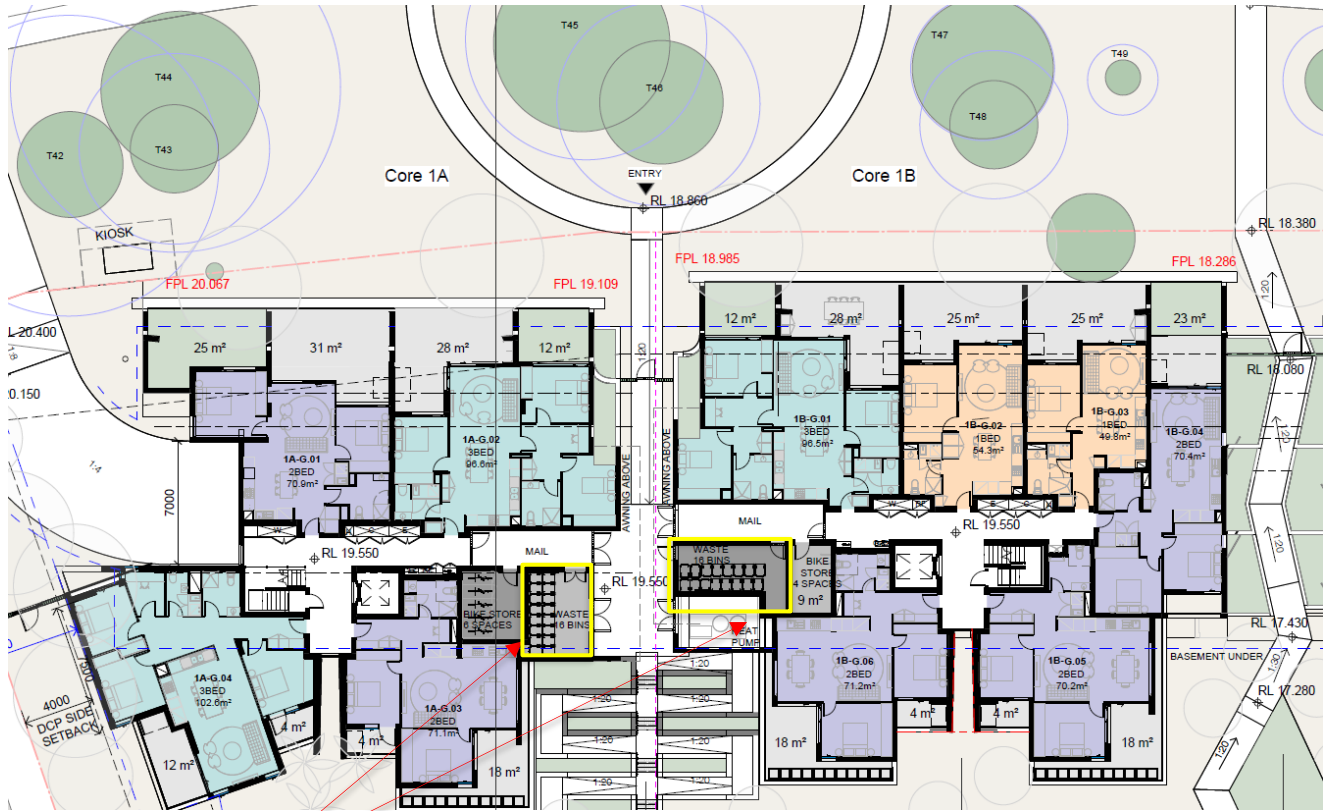
- Chosen private waste contractor complies with all legislative requirements
- Bins to be collected on an efficient schedule minimising transport

9. Site User Education

All site users (residents and cleaning contractors) will be provided with detailed information on recycling and waste management, as part of general building induction and orientation. This should be repeated on a regular basis – at least annually, for the benefit of residents, to promote and reinforce correct practices. The site's management team will be responsible for guiding this initiative. Appendices 2 and 3 respectively show examples of typical bins suitable for use within storage areas and signage for use in the storage rooms.

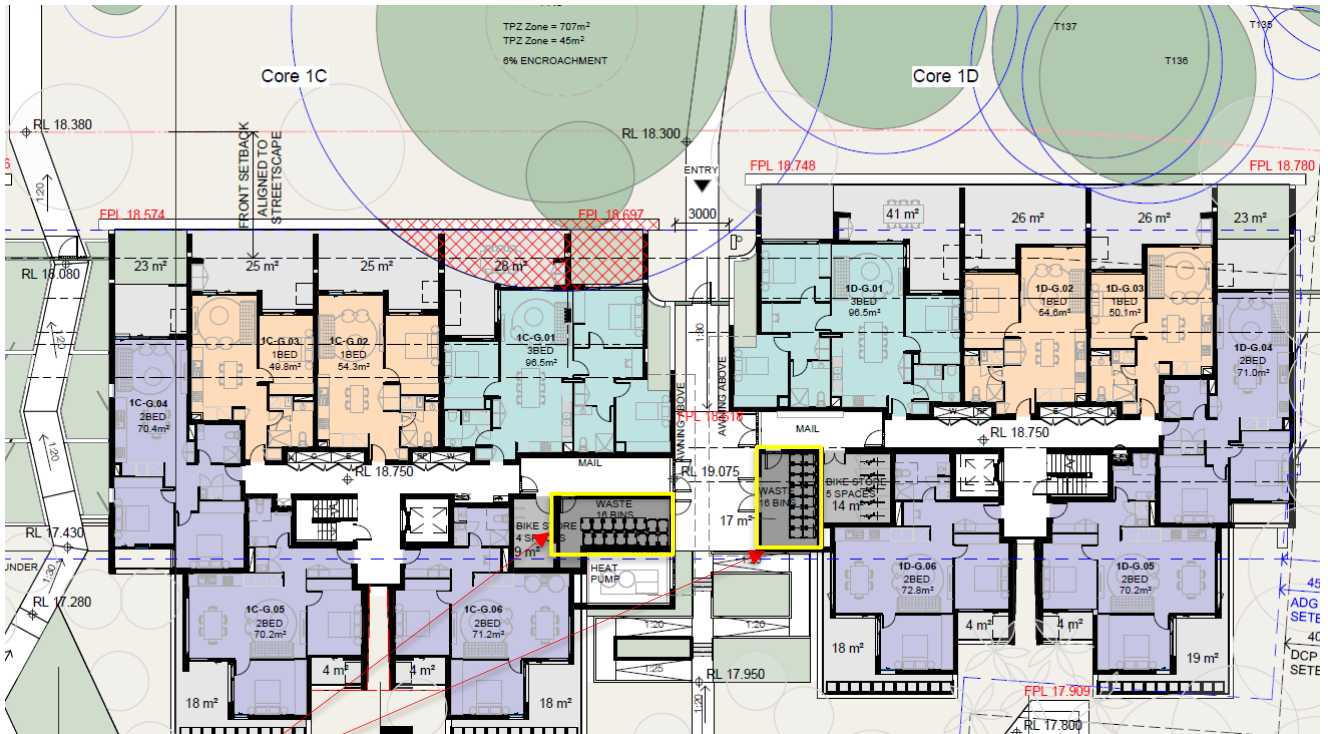
Appendix 1: Waste Storage Areas & Bin Movement Pathways

Core 1A & 1B



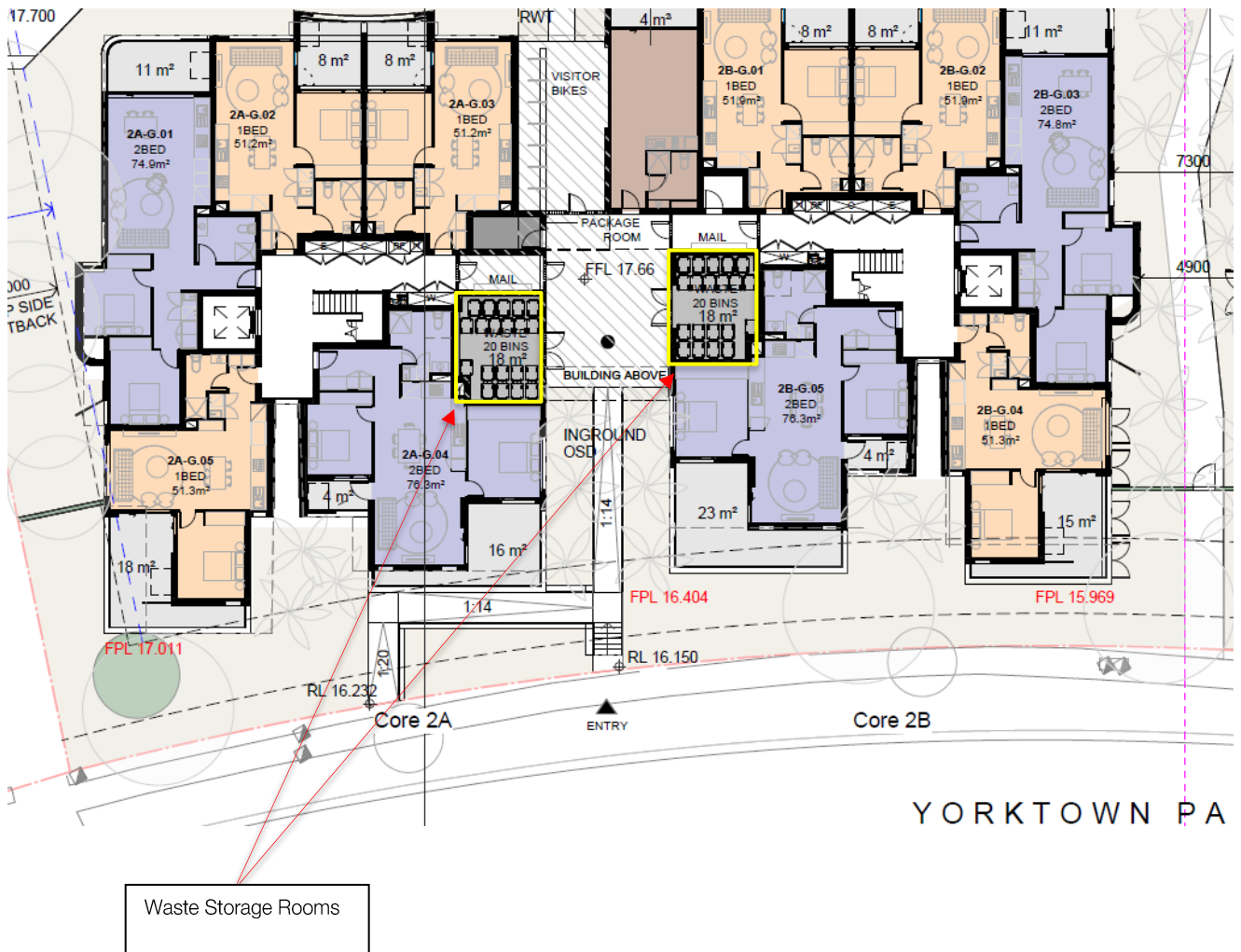
Waste Storage Rooms

Core 1C & 1D

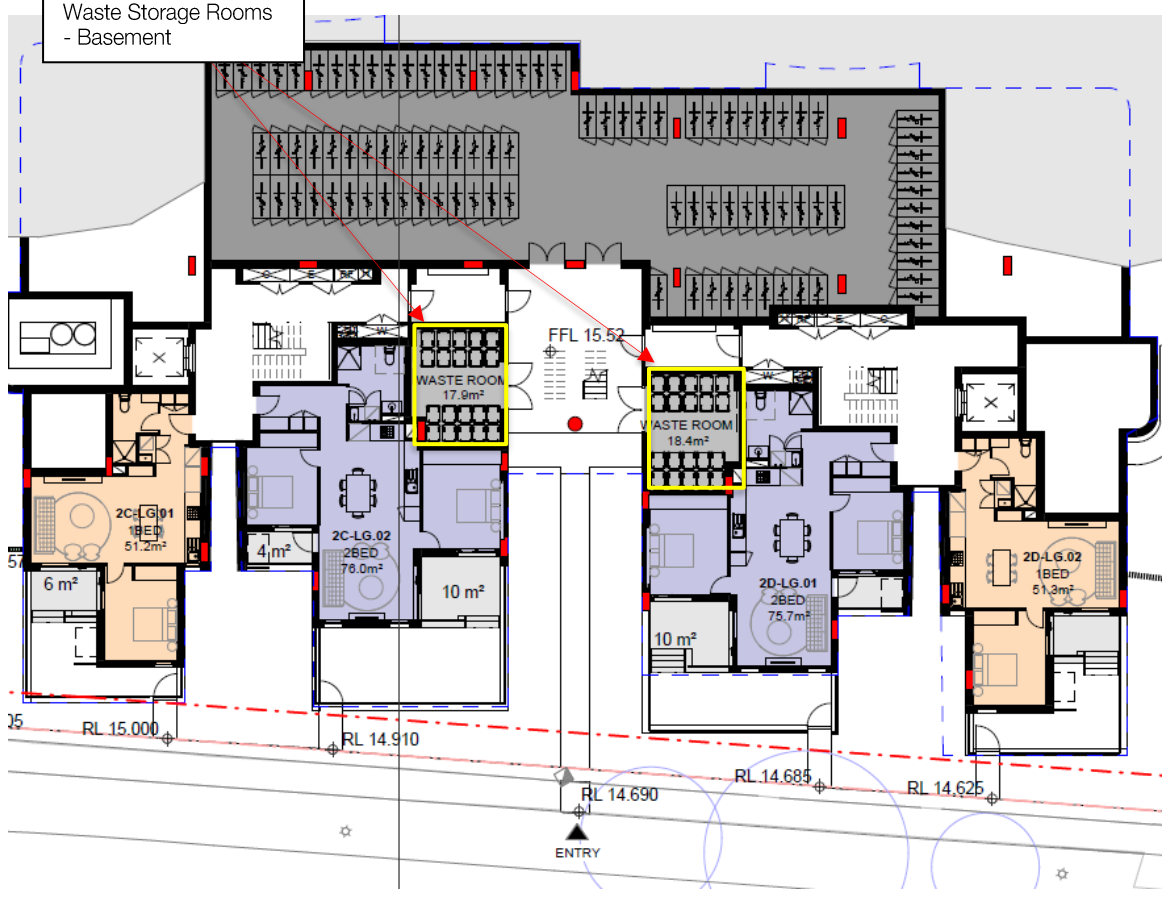
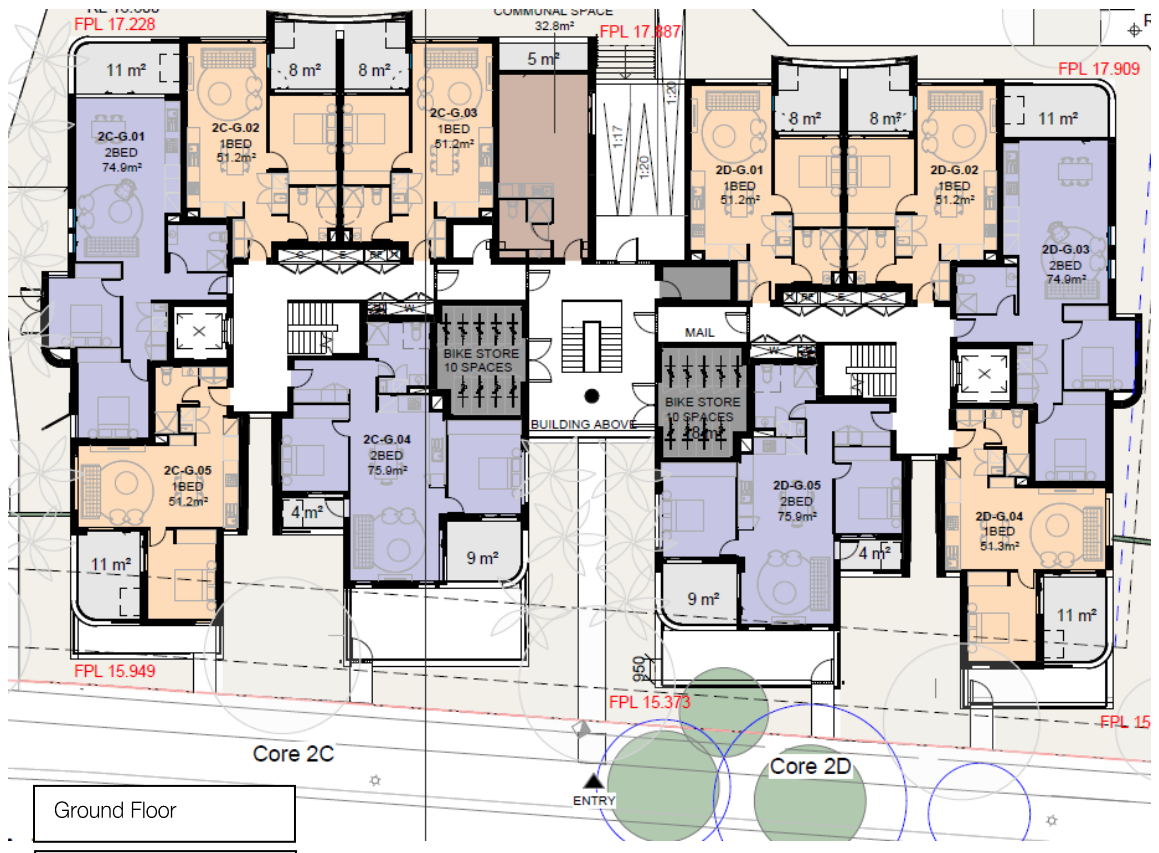


Waste Storage Rooms

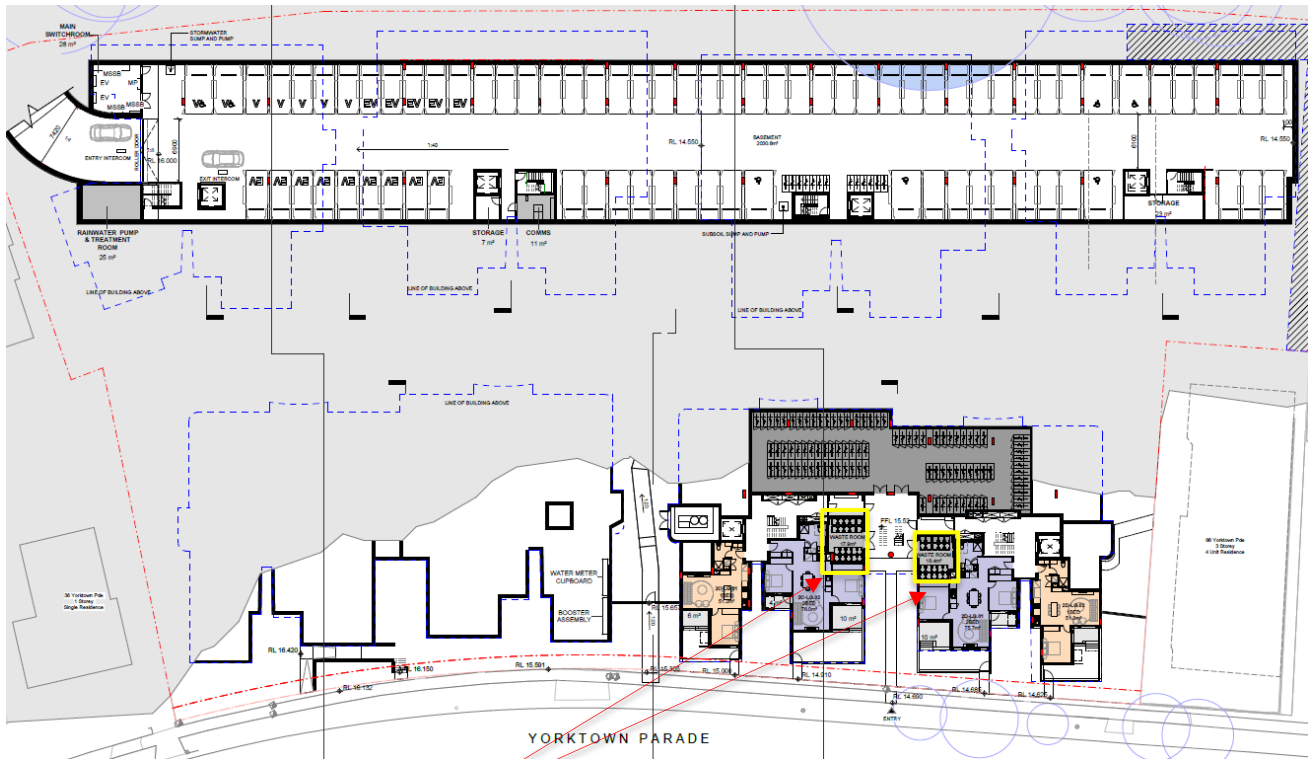
Core 2A & 2B



Core 2C & 2D



Basement Plan



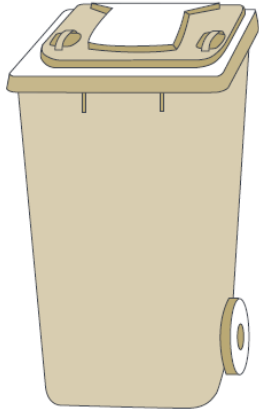
Waste Storage Rooms

Direction of bin travel for kerbside collection



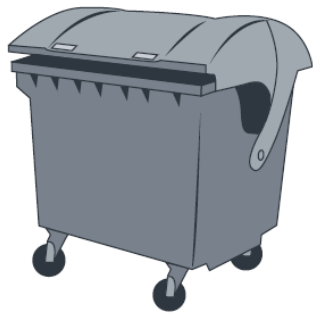
Appendix 2: Bin Specifications

Mobile containers with a capacity from 80L to 360L with two wheels



Bin Type	80 Litre MGB	120 Litre MGB	140 Litre MGB	240 Litre MGB	360 Litre MGB
Height	870 mm	940 mm	1065 mm	1080 mm	1100 mm
Depth	530 mm	560 mm	540 mm	735 mm	885 mm
Width	450 mm	485 mm	500 mm	580 mm	600 mm

Mobile containers with a capacity from 500L to 1700L with four wheels



Dome or flat lid containers

Bin Type	660 Litre MGB	770 Litre MGB	1100 Litre MGB	1300 Litre MGB	1700 Litre MGB
Height	1250	1425	1470	1480	1470
Depth	850	1100	1245	1250	1250
Width	1370	1370	1370	1770	1770

Bins of 240L specifications are the bins selected for the use in this project

Appendix 3: Storage Area Design & Signage

The photographs below show examples of best practice in storage area design and layout:



The signage examples below are for illustration purposes only. Actual signage should include suitable site-specific branding.



Appendix 4: Waste Management Guidelines for Proposed Developments

6.2.1 Waste bins

Council will provide the following receptacles to medium-rise developments:

- ▶ One 240L MGB for garbage, on a ratio of one bin per two dwellings;
- ▶ One 240L MGB for recycling, on a ratio of one bin per two dwellings.

Council may provide a green waste bin (240 L MGB) to medium-rise developments where it is requested by residents and approved by Council, or where it is deemed to be required by Council. Provision of a green waste service should be discussed with Council prior to submitting a development application.

Waste generation rates

- i. For medium-rise developments, storage space estimates are to be based on the following waste generation rates:
 - ▶ 120 L/week garbage;
 - ▶ 60 L/week recycling;
 - ▶ 60 L/week green waste.