Waste Audit and Management Group Pty Ltd
Level 21/133 Castlereagh Street Sydney, NSW 2000
Telephone (02) 9199 4521
www.wasteaudit.com.au

Operational Waste Management Plan

241-245 Pennant Hills Road, Carlingford
State Significant Development Application (SSD-84699461)

May 2026

Table of Contents

1 Introduction

This Operational Waste Management Plan has been prepared by Waste Audit and Management Group Pty Ltd on behalf of Triple Eight Corporation at the Carlingford Unit for the construction and operation of a mixed-use development including infill affordable housing (the **proposal**) on land at 241-245 Pennant Hills Road, Carlingford (the **site**).

This report has been prepared 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.

This report accompanies a State Significant Development Application that seeks approval for the demolition and construction of a mixed-use residential and commercial development including infill affordable housing, which involves the following:

- Site preparation works, including demolition of existing structures, vegetation removal as necessary, and bulk excavation.
- Construction and operation of a mixed-use development comprising commercial premises, gymnasium, childcare centre and shop top housing as follows:
  - One 18-storey building (Building A) in the Northeast corner of the site; and two 4-5 storey buildings (Building B & C) along the western edge of the site.
  - A publicly accessible through site link between Pennant Hills Road and Felton Road.
  - 6 commercial tenancies at ground floor
  - A three-storey gymnasium within the southern portion of Building C
  - A 90 place childcare centre located on level 01 of Building A
  - 2472m2 of communal open space in the following locations:
    - the roof of Building A, B and C,
    - the two-storey podium of Building A
    - the publicly accessible through site link
  - A total of 139 residential apartments across the three buildings, including 26 infill affordable apartments,
- Provision of three levels of basement parking with a total of 233 car parking spaces comprising:
  - 136 residential car parking spaces (including 22 accessible spaces);
  - 28 commercial car parking spaces (including 4 accessible spaces);
  - 23 childcare parking spaces (including 4 accessible spaces);
  - 15 gymnasium parking spaces (including 4 accessible spaces);
  - 28 visitor car parking spaces (including 6 accessible spaces); and
  - 3 car share spaces.
- Street tree planting and landscaping, extension and augmentation of services and infrastructure as required. For a detailed project description, refer to the Environmental Impact Statement prepared by Planning Direction.

2 Site Description and Location

The site is identified as 241-245 Pennant Hills Road, Carlingford within the City of Parramatta Local Government Area (LGA). It is situated in the western portion of the Carlingford Local Centre and is located approximately 18km northwest of the Sydney Central Business District (CBD).

The site is an irregular triangular shape and comprises approximate frontages of 140m to Pennant Hills Road to the southeast, 100m to Felton Road to the north and 135m to the adjoining properties to the west. The site comprises a total area of 6331m^2, with the entirety of the site under single ownership. Site calculations have been based on a total area of **5848m2** that excludes the SP2 zoned portions of the site in the north-eastern and southern corners of the stie.

The site is described in **Table 1** below and illustrated in the Site Aerial Map in **Figure 1** following.

Table 1 Site Description

Reference	Street address	Legal description	Area
1	**241-245 Pennant Hills Road**	**Lot 1 DP**805059	**-**
2	**241-245 Pennant Hills Road**	**Lot 2 DP**805059	**-**
3	**241-245 Pennant Hills Road**	**Lot 5 DP**805059	**-**
4	**241-245 Pennant Hills Road**	**Lot 6 DP**805059	**-**
total			**6331**m^2

Figure 1 Site Aerial Map

Source: Nearmap, edits by Kennedy Associates Architects

SEARs Requirements Declaration

Declaration		
Name	Luana Linke	
Qualifications	Waste Management Consultant	
	The undersigned declares that this Operational Waste Management Report has been prepared in response to the following SEARs requirements issued for the Project on 26 September 2025 for SSD-84699461.	
SEARs item no.	**SEARs Requirement**	**Relevant Section of this Report**
17	Waste Management 17.1 Provide the measures to be implemented to manage, reuse, recycle and safely dispose of waste, including in accordance with any council waste management requirements. 17.2 Identify appropriately sited waste storage areas, collection access paths/roads, and appropriate servicing arrangements for the site.	Section 5 Section 5.5, 5.7, 6 Appendix A and B
Signed 		
Dated **25 May 2026**		

3 Tenancy Breakdown

The proposed development will consist of the following area types that will produce operational general waste, recyclable and organics waste materials (**Tables 2 and 3**).

Table 2 Residential Breakdown by Unit Type

Unit Type	1 Bed	2 Bed	3 Bed	Total Units
	32	61	46	**139**

Table 3 Commercial Breakdown by Tenancy and GFA

Commercial	GFA m^2
A1 Retail/Office	103
A2 Retail/Office	115
A3 Retail/Office	166
B1 Retail food	111
B2 Retail/Office	121
C1 Retail/Office	144
C2 Gym	473
D Childcare	822
Total Area	**2,057 m^2**

4 Legislation, Standards & Guidelines

This Operational Waste Management Plan addresses the waste management aspects associated with the local, state, and national requirements for the 241-245 Pennant Hills Road development that must be included in new development applications. This OWMP is specifically informed by the following:

- City of Parramatta Development Control Plan (DCP) 2023
- Parramatta Development Control Plan (DCP) 2023, Part 11 Appendices
- NSW EPA's Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012
- NSW Better Practice Guide for Resource Recovery in Residential Developments 2019
- NSW Waste Classification Guidelines 2014
- NSW Waste Avoidance and Resource Recovery Act 2001

5 Operational General Waste & Recycling

5.1 Resources Stream

Each of these streams will require different operational management practices depending on the type of tenancy. Recommended systems are detailed in following sections of this report.

The *City of Parramatta Development Control Plan (2023)* is the applicable development control for this project. The *City of Parramatta Development Control Plan (2023)* refers to *EPA's Better Practice Guide for Resource Recovery in Residential Developments 2019* for waste and recycling generation rates. which have been used to calculate the volumes of materials that will be produced from the development's operations (
Table and 5):

Table 4 Waste Generation Factors for Residential Tenancy

Occupancy Type	Number of Units	General Waste	Commingled Recycling
Building A (per dwelling)	121	80 litres/week	60 litres/week
Building B (per dwelling)	12	80 litres/week	60 litres/week
Building C (per dwelling)	6	80 litres/week	60 litres/week
Total Units	**139**		

Table 5 Waste Generation Factors by Waste Stream and Tenancy Type

Occupancy Type	GFA (m^2)	General Waste (Litres/100 m^2/day)	Commingled Recycling (Litres/100 m^2/day)	Food Organics (Litres/100 m^2/day)
Retail/Office	650	25	200	5
Retail food	111	100	500	100
Gym	473	20	15	-
Childcare	822	50	50	15

Table 6 Definitions and Examples of Various Waste Streams Produced by Tenancies

Material Streams	Waste Stream Description
General Waste	• Material that is either not recyclable or that should be disposed of in general waste bins. The following items are eligible: ○ Styrofoam packaging and food containers ○ Broken ceramics, crockery, and glassware ○ Soft plastics including plastics bags, wrappers and chip packets. ○ Nappies & tissues ○ Kitchen food scraps (To be disposed on organics stream)
Commingled Recycling	• Material that is recyclable according to local waste recovery guidelines. Common items that can be placed in your mix recycling bin are: ○ Office paper and cardboard ○ Glass bottles and jars ○ Plastic containers and bottles ○ Steel and aluminium cans and tins
FOGO/Organics	• Material that can be decomposed or converted onto other reusable resources. Common items that can be placed in your green lid bin are: ○ Kitchen food scraps ○ Grass clippings ○ Flowers and plant off-cuts.

Accordingly, each of the above-mentioned streams will require different operational management practices depending on the type of tenancy. In addition, other recycling systems such as liquid waste; e-waste; batteries; mobile phones etc. may be required on an ad-hoc basis.

5.2 Residential Volumes, Bins & Collection Frequencies

The tables below show residential bin numbers, sizes, and collection frequencies. Bin sizes are in litres (Standard Bin Dimensions can be found in **Appendix D**). The required bin quantities and collection frequencies have been determined based on the waste generation rates for Buildings A, B, and C individually (**Tables 7, 8 and 9**).

Table 7 Building A Residential waste volumes, bins and collection calculations

Residential Streams	Bin Size (L)	Bin No.	Weekly Capacity	Weekly Generation	Collections per Week	Total Footprint (m^2)
Building A (121 units)						
General Waste	660	8	10,560	9,680	2	9.6
Commingled Recycling	240	40	9,600	7,260	1	20.0
Total		**48**	**20,160**	**16,940**	**3**	**29.6 m^2**

General Waste

- Bin storage and service rooms on each residential floor contain general waste chute.

Commingled Recycling

- Levels 02, 03, 14, 15 and 16
  - Bin storage and service rooms on each residential floor will contain 2 x 240L commingled recycling bins.
- Levels 04-13
  - Bin storage and service rooms on each residential floor will contain 3 x 240L commingled recycling bins.

Future resident access to food organic bins (FOGO) can utilise the available space in the bin storage and service rooms on each residential floor.

Table 8 Building B Residential waste volumes, bins and collection calculations

Residential Streams	Bins size (L)	Bin No.	Weekly Capacity	Weekly Generation	Collections per Week	Total Footprint (m^2)
Building B (12 units)						
General Waste	240	6	1,440	960	1	3.0
Commingled Recycling	240	3	720	720	1	1.5
Total		**9**	**2,160**	**1,680**	**2**	**4.5 m^2**

General waste

- Bin storage and service rooms on each residential floor will contain 2 x 240L general waste bins.

Commingled Recycling

- Bin storage and service rooms on each residential floor will contain 1 x 240L commingled recycling bin.

Future resident access to food organic bins (FOGO) can utilise the available space in the bin storage and service rooms on each residential floor.

Table 9 Building C Residential waste volumes, bins and collection calculations

Residential Streams	Bins size (L)	Bin No.	Weekly Capacity	Weekly Generation	Collections per Week	Total Footprint (m^2)
Building C (6 units)						
General Waste	240	3	720	480	1	1.5
Commingled Recycling	240	3	720	360	1	1.5
Total		**6**	**1,440**	**840**	**2**	**3 m^2**

General waste

- Bin storage and service rooms on each residential floor will contain 1 x 240L general waste bins.

Commingled Recycling

- Bin storage and service rooms on each residential floor will contain 1 x 240L commingled recycling bin.

Future resident access to food organic bins (FOGO) can utilise the available space in the bin storage and service rooms on each residential floor.

5.3 Commercial and Retail Volumes, Bins & Collection Frequencies

Table 10 below shows combined bin numbers, sizes, and collection frequencies, based on 7 days per week operation for Retail/Office, Retail food and Gym tenancies. Bin sizes are in litres (Standard bin dimensions can be found in **Appendix D**). Tenancy areas have been calculated using combined GFA.

Table 10 Retail/Office, Retail food and Gym waste volumes, bins and collection calculations

Tenancies Streams	Bins size (L)	Bin No.	Weekly Capacity (L)	Weekly Generation (L)	Collections per Week	Total Footprint (m^2)
General Waste	660	3	1,980	2,573	2	3.6
Commingled Recycling	660	8	5,280	13,467	3	9.6
Organic Waste	240	3	720	1,003	2	1.5
Total		**14**	**7,980L**	**17,043L**	**7**	**14.7 m^2**
Total Commercial Waste Area (as shown on plans)						**26 m^2**

Table 11 below shows combined bin numbers, sizes, and collection frequencies, based on 5 days per week operation for the Childcare Centre. Waste volumes are based on Indoor Play Area GFA (341 m^2).

Table 11 Childcare Centre waste volumes, bins and collection calculations

Childcare Streams	Bins size (L)	Bin No.	Weekly Capacity (L)	Weekly Generation (L)	Collections per Week	Total Footprint (m^2)
General Waste	240	4	960	852	1	2.0
Commingled Recycling	240	4	960	852	1	2.0
Organic Waste	240	2	480	255	1	1.0
Total		**10**	**2,400**	**1,959**	**3**	**5.0 m^2**
Total Childcare Waste Area (as shown on plans)						**19 m^2**

5.4 Other Waste

Bulky Waste

A 29 m^2 dedicated room, located in Building A Level 00, has been provided for the storage of bulky discarded items and problem waste intended for recycling, such as e-waste and problem waste. This storage area is equipped with a door at least 1.5 m wide. This width ensures that large waste items can be pushed in and out of the storage area easily and efficiently.

Building managers will need to arrange private collections as needed so that the storage area does not become overfull. Bulky waste area is further indicated in **Appendix A**.

Hazardous Waste

Small quantities of hazardous wastes may be generated (e.g., light bulbs, e-waste, batteries, oil, chemicals, or paint). Separate containers or draining area for the safe storage of these wastes in the development will be included where applicable within the development. These materials will be collected by an appropriate contractor or sub-contractor as defined in by local and state regulation.

Cooking oil

The Retail food tenancy will organize the storage and collection of used cooking oil by placing it in a designated container. This container will then be regularly serviced by a chosen contractor as needed. The process includes storing the used cooking oil until it is collected or pumped out by a designated recycler, who will also manage the recycling services monthly or more frequently if necessary. Selected staff members will be tasked with draining the oil and safely moving it to the recycling area. Additionally, the selected oil recycling company will offer necessary training to both management and the staff involved in this process.

5.5 General Waste & Recycling - Bin Transfer & Collection

Residential Building A

Bin storage and service rooms have been provided on each residential floor. A single chute is provided for general waste. The chute empties directly into 660L bins.

240L recycling bins will be provided in each bin storage and service room for residents to dispose of commingled recycling.

Recycling bins will be monitored by building caretaker or cleaning staff and transferred via lift to Level 00 waste room for collections.

See **Appendix B** showing waste transfer paths.

The private contractor will be responsible for collections. Once all bins have been emptied, the bins will be returned by the building caretaker or cleaning staff to the bin storage and service rooms.

Residential Buildings B and C

Bin storage and service rooms have been provided on each residential floor. Each room will be equipped with 240L general waste and recycling bins to allow residents to dispose of their waste and recyclables correctly.

These bins will be regularly monitored by the building caretaker or cleaning staff. Bins will be transferred for collections via lifts 5 and 6 to Basement level 01. Bins will then be moved across to Lift 8 with the use of a bin tug, and transported back up to Level 00 to residential bin collection point.

On the designated collection days, the containers collected from the bin storage and service rooms are to be placed in the designated loading dock area for collection

See **Appendix B** showing waste transfer paths.

The private contractor will be responsible for collections. Once all bins have been emptied, the bins will be returned by the building caretaker or cleaning staff to the bin storage and service rooms.

Commercial/Retail

General waste, recycling, and food organics generated by individual tenancies will be transferred as needed by tenancy staff or cleaners using a waste trolley and bin tug to the commercial waste room located in Building A, Level 00.

Commercial Suites B1, B2, C1 have Interim Bin Stores which will be emptied at the end of each day, or as needed.

Commercial Suites in Building B & C will transfer waste via lifts 5, 6 and 7 to Basement level 01. The waste will then be moved across to Lift 8 with the use of a bin tug, and transported back up to Level 00 to Commercial waste room. Commercial Suites will be allocated a fob / security card access to use the residential lifts in Building B and C (Lifts 5&6).

Tenancy staff will be responsible for ensuring that waste is correctly sorted into the appropriate bins and that internal bins are emptied before reaching full capacity.

A private contractor will manage all waste and recycling collections. Following each collection, the building caretaker will return the emptied bins to their designated locations in the commercial waste room.

See **Appendix B** showing waste transfer paths.

5.6 Storage Areas: General Requirements

The development's central waste and recycling storage facilities will be located in Building A at Level 00, comprising multiple dedicated rooms for the separate storage of commercial and residential waste and recycling. Access to these areas will be restricted to authorised staff and residents only, with building doors kept locked to ensure security. The storage areas will be designed and maintained to minimise odours, deter vermin, and ensure a safe, user-friendly environment, incorporating the following features and operational practices:

- The size being large enough to accommodate all waste generated on the premises, with allowances for the separation and/or compaction of different waste types.
- Designed and sited so as to not adversely impact on the amenity of the development.
- Be located on either the ground floor or basement.
- Floor and wall surfaces that are smooth, even surface, and coved at all intersections with the floors graded and drained to an approved drainage outlet connected to the sewer.
- A minimum roof clearance of 2.1 metres.
- The provision of water supply and tap to facilitate cleaning, with the outlet located in a position so that it cannot be damaged.
- Ventilated (either natural or mechanical) in accordance with the Building Code of Australia.
- The provision of signage indicating the appropriate use of bins.

- Designed for the sole for the purposes of the storage of bins, and not as a utility room for gas meters, power boards or for the storage of other items.

All waste and recycling containers will be clearly differentiated through appropriate signage and colour coding to reflect the materials contained, with each stream located in a designated area within storage rooms, with large and clear signage to assist in easy identification by users, as shown in **Appendix E**. Other best practice standards for storage and handling areas include:

- Ensuring the waste loading areas are level and free of kerbs, steps, etc.
- Line markings showing the loading area and positions of bins within the storage room.

5.7 Collection Area: General Requirements

The collection area will be the same as the storage area located in Building A at Level 00. The space will be accessible to waste contractors by authorised staff only, and will have the following features and maintenance practices to ensure accessibility and safety:

- The site must be designed to allow Waste Vehicles to enter and exit the site in a forward direction and to adequately manoeuvre once onsite.
- The route of travel for the waste vehicle is to be of sufficient strength and quality to support a Waste Vehicle.
- The grades of entry and exit ramps and manoeuvrability (including turning circles) must not exceed the capabilities of the waste collection vehicle and are to comply with Australian Standard AS 2890.2 Parking Facilities: Off-Street Commercial Vehicle Facilities.
- Transfer of an authorised easement restricted to the common property on the strata plan to provide indemnity against liabilities, losses, damages and other costs arising from the on property collection service provided.

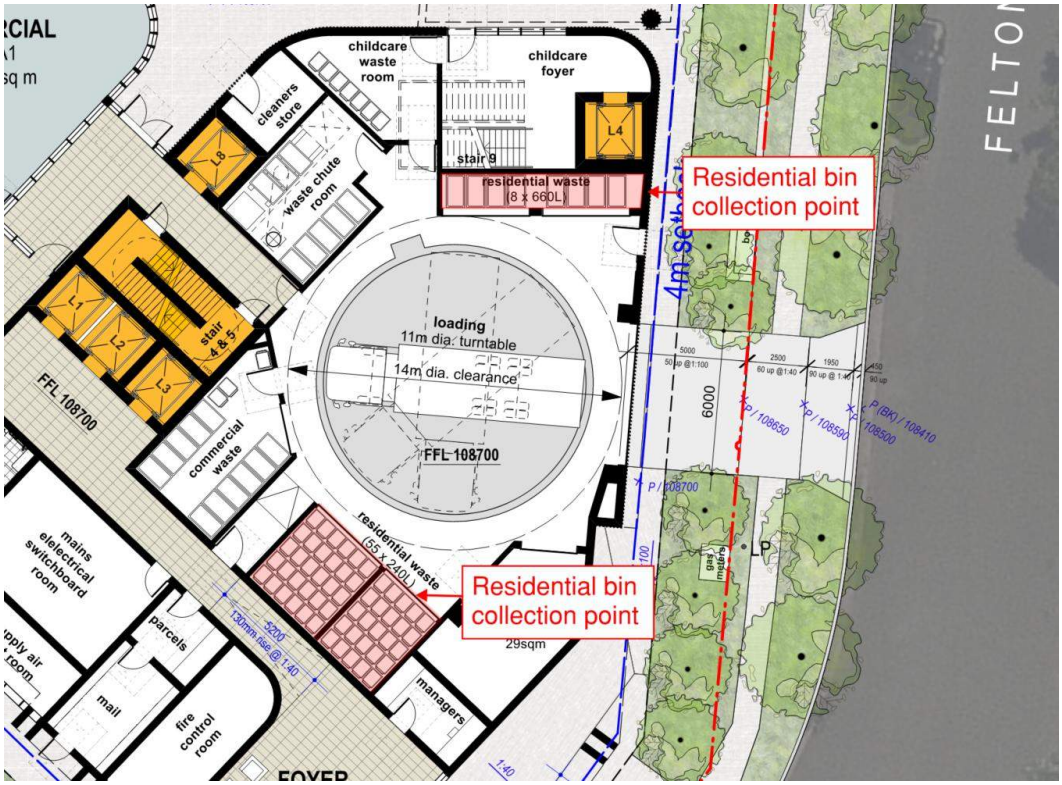
6 Collection Method

Residential

Residential bin collections will be undertaken by Council. Two bin collection points have been designated in the loading dock (See **Figure 2** below). To ensure the development can be serviced efficiently, safely, and reliably, the loading dock has been designed to accommodate a Heavy Rigid Vehicle (HRV) collection vehicle.

In the interests of reducing hard stand areas, a turntable system has been provided within the loading dock to facilitate safe waste collection vehicle movements. The collection vehicle will enter the site in a forward direction. All residential bin collection points are conveniently located surrounding the loading dock/turntable. Following collection activities, the HRV will utilise the turntable to rotate the vehicle and exit the site in a forward direction, thereby avoiding reversing movements onto the public road network.

Figure 2 Council bin collection points



Bins will be presented at the nominated collection points by building management. The collection area and turntable have been designed to accommodate the swept path, dimensions, and operational requirements of a HRV waste vehicle. See **Appendix F** for Swept Path Diagrams.

The turntable system will be operated and maintained in accordance with the manufacturer's specifications to ensure ongoing safe and efficient operation. Adequate clearance, lighting, ventilation, and signage will be provided within the loading dock/waste collection area to support vehicle manoeuvring and collection activities.

All waste collection activities will occur wholly within the site boundary to minimise impacts on surrounding roads, pedestrians, and traffic operations.

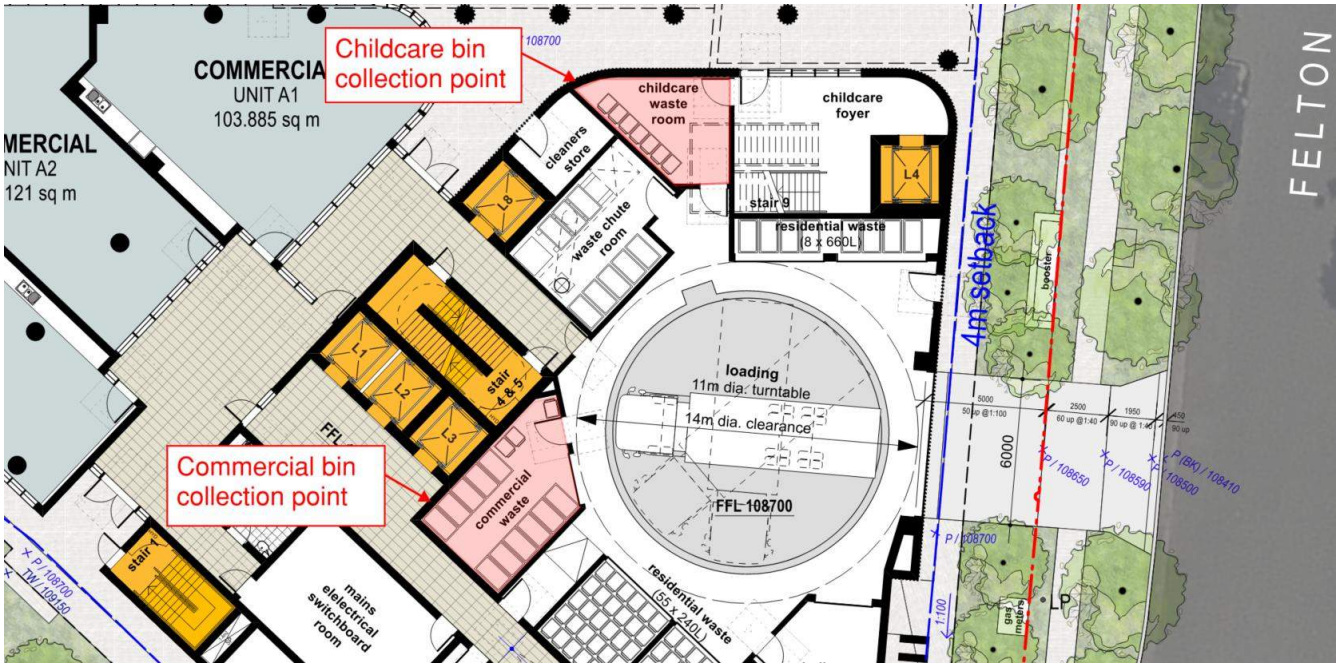
Commercial/Retail

Commercial/Retail collections for the development will be undertaken by a suitably licensed private waste contractor. Commercial and Childcare waste storage areas are conveniently located surrounding the loading dock/turntable (See **Figure 3** below). All waste collection activities will occur wholly within the site boundary to minimise impacts on surrounding roads, pedestrians, and traffic operations.

The collection vehicle will enter the site in a forward direction. Following collection activities, the HRV will utilise the turntable to rotate the vehicle and exit the site in a forward direction, thereby avoiding reversing movements onto the public road network.

See **Appendix F** for Swept Path Diagrams.

Figure 3 Commercial bin collection points



7 Management Systems

Table 12 shows proposed management practices for the development's operational general waste and recycling streams.

Table 12 Management, Storage, & Collection Systems

Tenancy	Material Streams	Management, Storage, & Collection Systems
Residential	General Waste and Commingled Recycling	• Apartment fit-outs will be designed to accommodate separate bin housings in kitchens for general waste and mixed recycling streams. • Residents must dispose of their separated waste streams into the building's provided 240L general waste and recycling bins. • A single general waste chute system has been provided for Building A only. • Onsite Council collections will take place for residential bins.
Retail/Office, Retail food and Gym	General Waste, Commingled Recycling & Food Organics	• Staff will be responsible for disposing of all waste and recyclables in the correct general waste, recycling, and food organics bins in their designated waste storage area. • Commercial Suites B1, B2, C1 have Interim Bin Stores which will be emptied at the end of each day, or as needed. • Commercial Suites in Building B & C will transfer waste via lifts 5, 6 and 7 to Basement level 01. The waste will then be moved, with a bin tug, to Lift 8 and transported back up to Level 00 to Commercial waste room. Commercial Suites will be allocated a fob / security card access to use the residential lifts in Building B and C (Lifts 5&6). • Once the building is operational, a schedule will be established for the private waste contractor to collect these materials.
Childcare Centre	General Waste, Commingled Recycling & Food Organics	• Centre Staff will be responsible for disposing of all waste and recyclables in the correct general waste, recycling, and food organics bins in their designated waste storage area. • Once the building is operational, a schedule will be established for the private waste contractor to collect these materials.

7.1 Chute System (Residential)

A single waste chute dedicated to general waste is provided on all residential floors of Building A, allowing residents to conveniently dispose of waste directly into the central collection system.

Maintenance staff will be responsible for day-to-day management of all bins in the chute room, including removing full bins from the bin carousel and placing empty bins under chute outlets. Other tasks will include periodic cleaning of the bins and keeping the room tidy and free of litter.

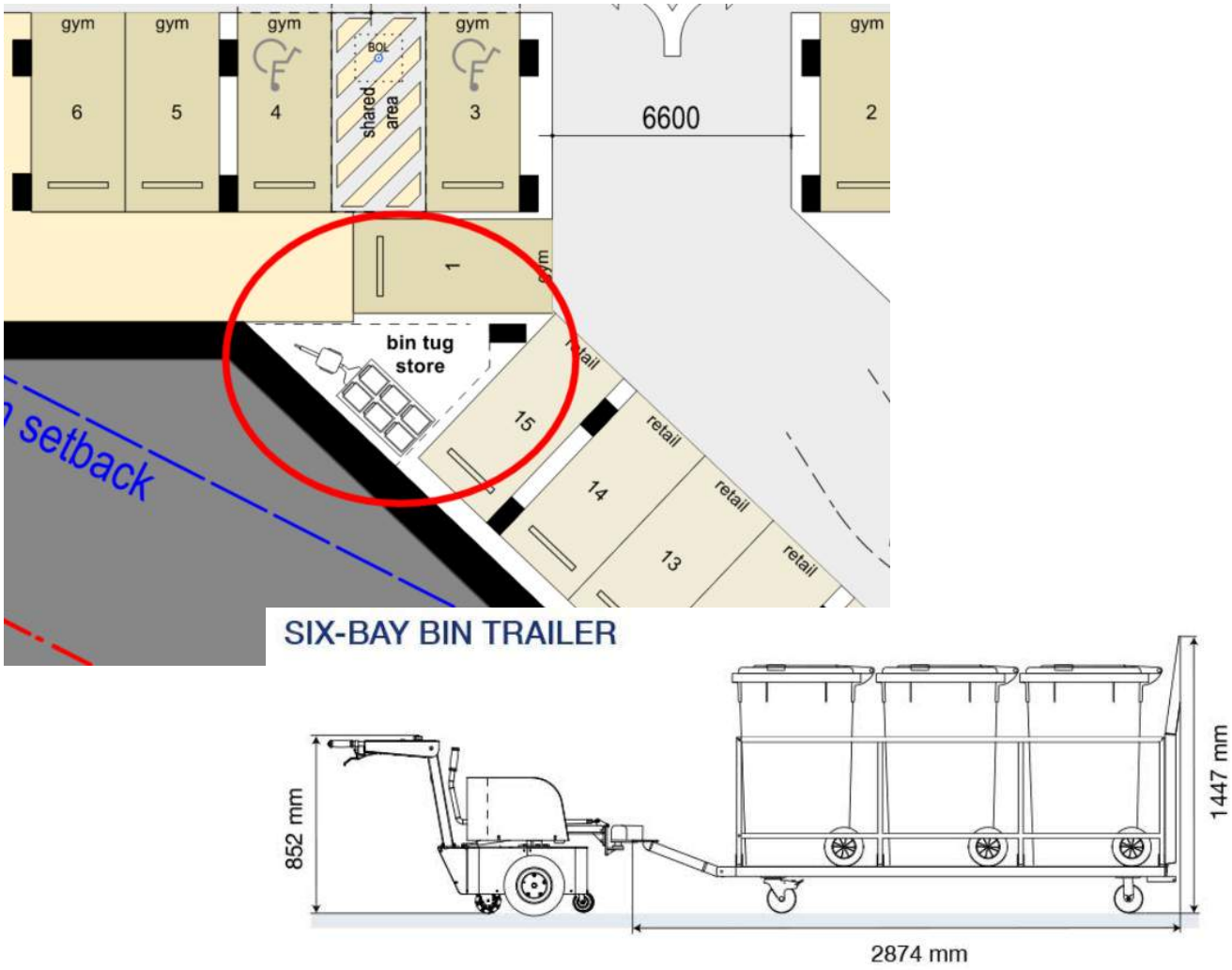
An odour neutraliser will be installed in the bin room and mechanical exhausts will be installed in each chute access room on residential floors, in addition to the separate exhausts to each chute.

For items too large to fit into chutes, residents will contact building management to arrange for these to be collected and taken to the relevant storage room depending on the type of material.

7.2 Bin Tug

A bin tug and bin trailer will be provided for the development to ensure 240L bins can be safely transferred across the basement level for collection purposes. A dedicated storage area for the bin tug has been provided on Basement Level 01. **Figure 4** below shows Basement 01 Bin Tug Store location and example of bin tug and trailer to be provided.

Figure 4 Bin Tug Store location & example bin tug/trailer



Tenancy Bins

Non-residential areas are suggested to be equipped with 3-stream bin hubs for:

- Commingled Recycling
- Organics Recycling
- General Waste

Figure 5 shows an example of bins commonly used in office tenancies. Colour-coded translucent bin liners are recommended to assist cleaning staff to distinguish the three recycling streams from general waste and from each other and enable them to identify contamination prior to final disposal in the bins in the designated waste storage room.

Figure 5 Example bin hubs

8 Waste Contractor Standards

To achieve and maintain best practice, the development's private waste contractor will be required to comply with the following service requirements:

- Reliable and efficient servicing and meeting all agreed schedules.
- Suitably sized collection vehicles to be able to access the building's waste area.
- Maintaining accurate tracking systems for all materials collected.
- Working with the site to achieve continuous improvements in recovery rates.
- Providing detailed monthly and annual reports on diversion and financial outcomes.
- Maintaining current details of all processing facilities used.

9 Tenant & Stakeholder Education

For the new systems to be successful an education program will be required for the development's private tenants. Tenants, cleaners, and building managers will be a key element in the effectiveness of the new systems and as such, relevant procedures will need to be written into contract specifications, including requirements for monitoring contamination of recycling streams and condition of bins and other equipment, and providing users with feedback on ongoing systems performance.

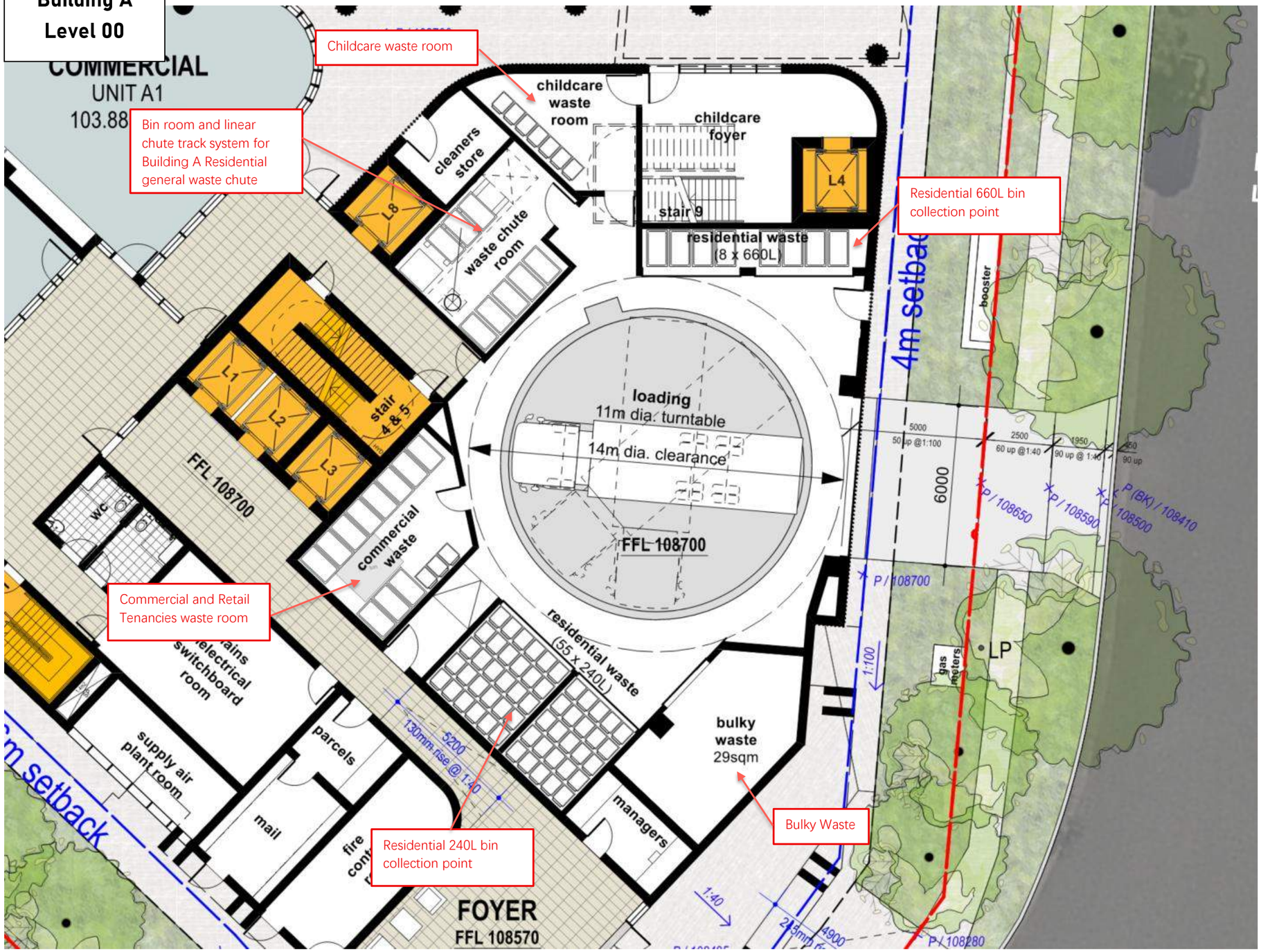
As the author of this report, I certify that the design of the waste storage areas and management systems detailed herein are adequately sized and located for safe and convenient storage and collection of all identified waste streams as required to meet the requirements of Parramatta City Council.

Luana Linke

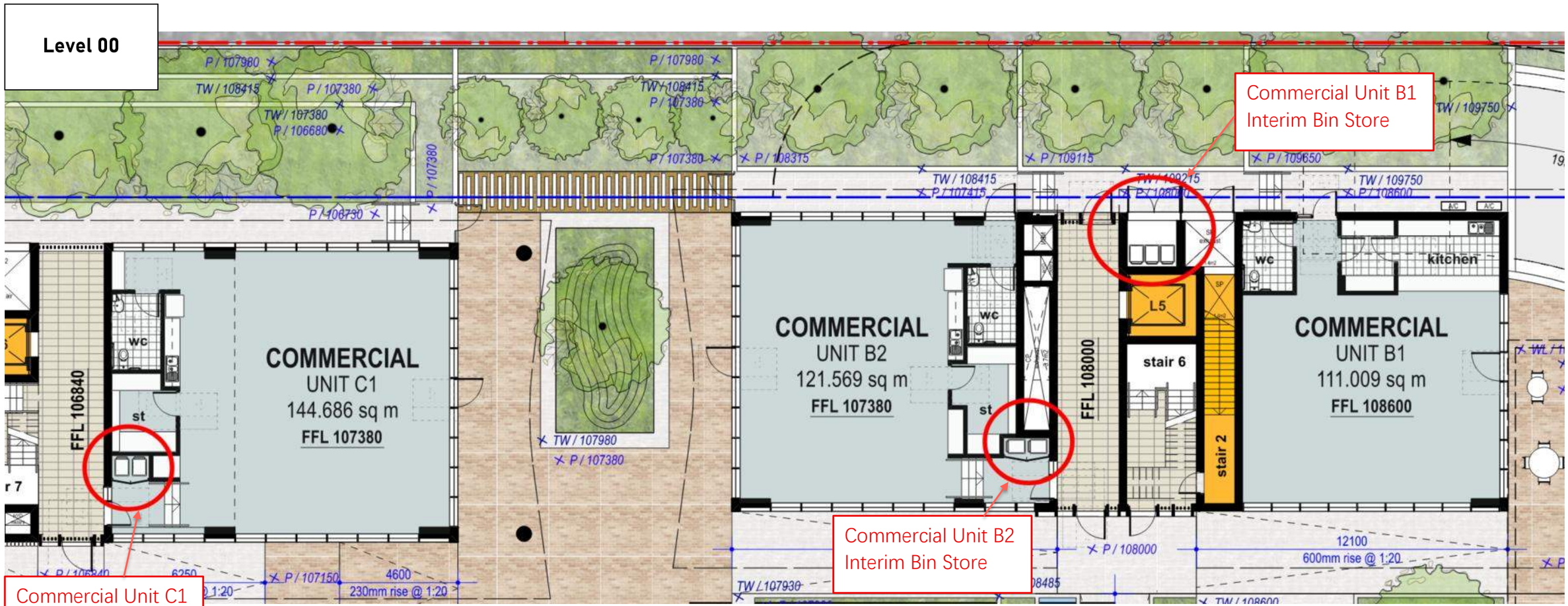
Waste Consultant
Waste Audit and Management Group Pty Ltd
25 May 2026

Appendix A | Commercial & Residential Waste Storage Areas

Building A
Level 00

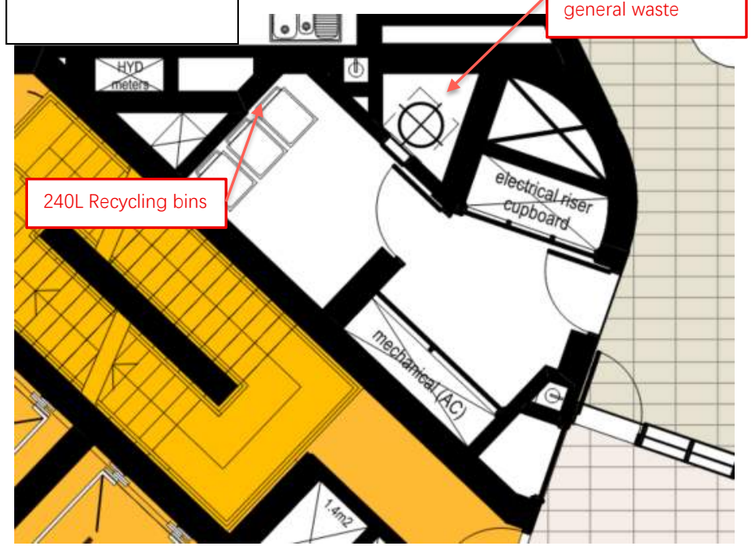


Commercial Interim Bin Storage

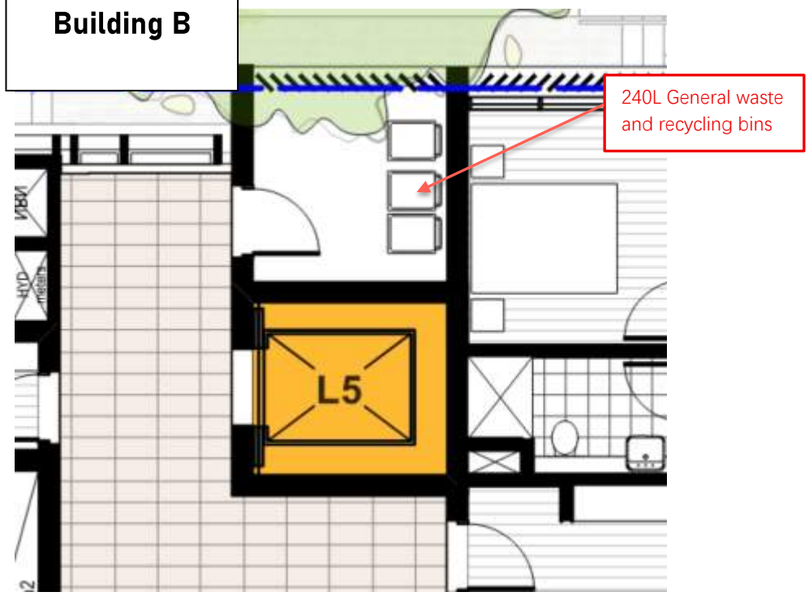


Typical Residential Bin Storage and Service Rooms

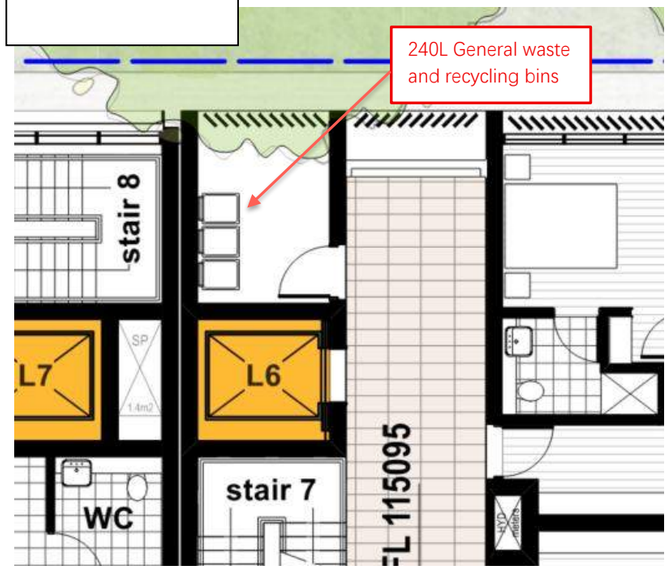
Building A



Building B



Building C

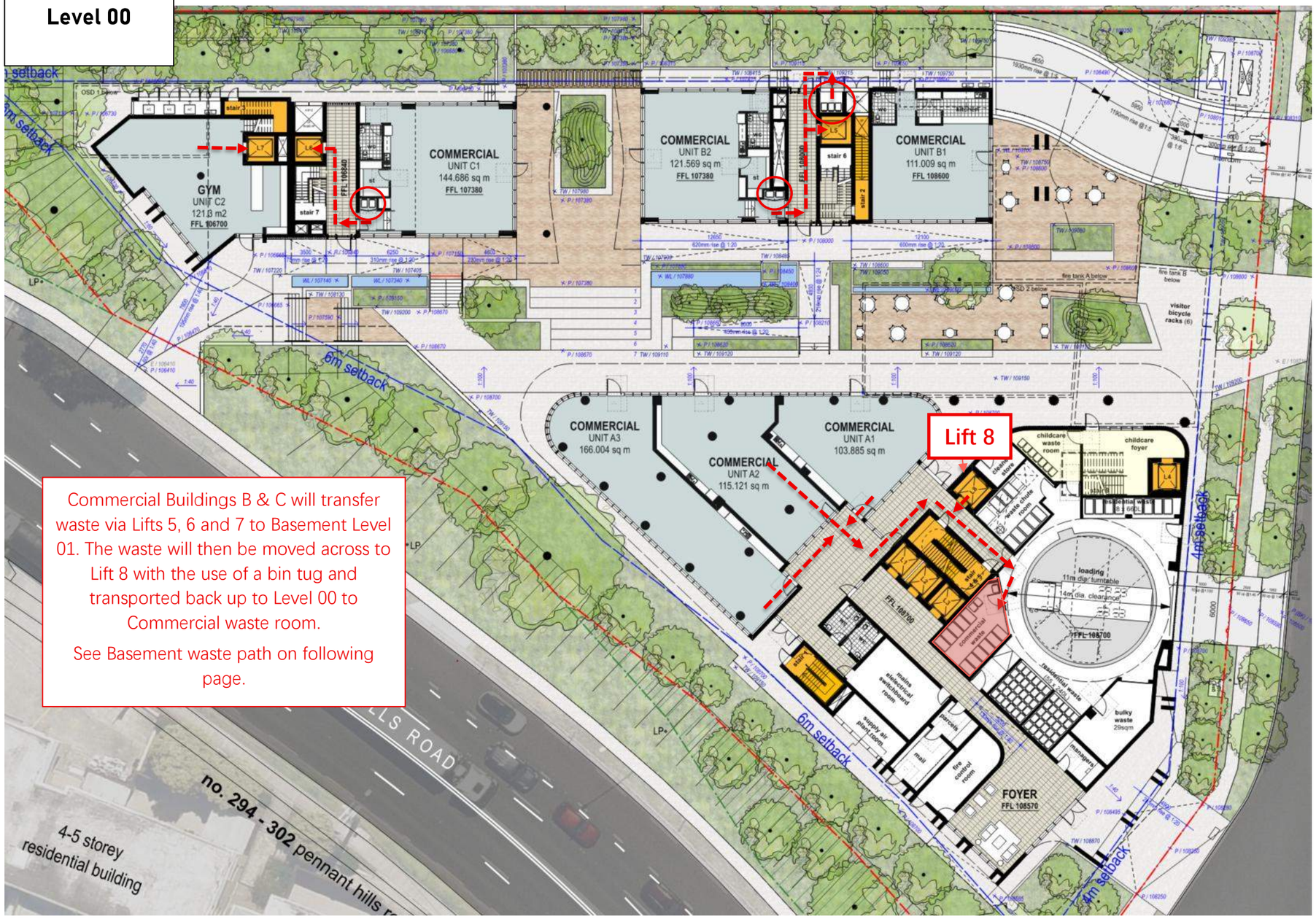


Appendix B | Commercial & Residential Waste Transfer Pathways

The following drawings below show proposed development waste storage pathways to the various waste storage areas, enabling building users to deliver waste to the rooms. Waste paths shown with red arrows.

Commercial Waste Transfer Pathways

Level 00



Commercial Buildings B & C will transfer waste via Lifts 5, 6 and 7 to Basement Level 01. The waste will then be moved across to Lift 8 with the use of a bin tug and transported back up to Level 00 to Commercial waste room.

See Basement waste path on following page.

Commercial Waste Transfer Pathways

Basement 01

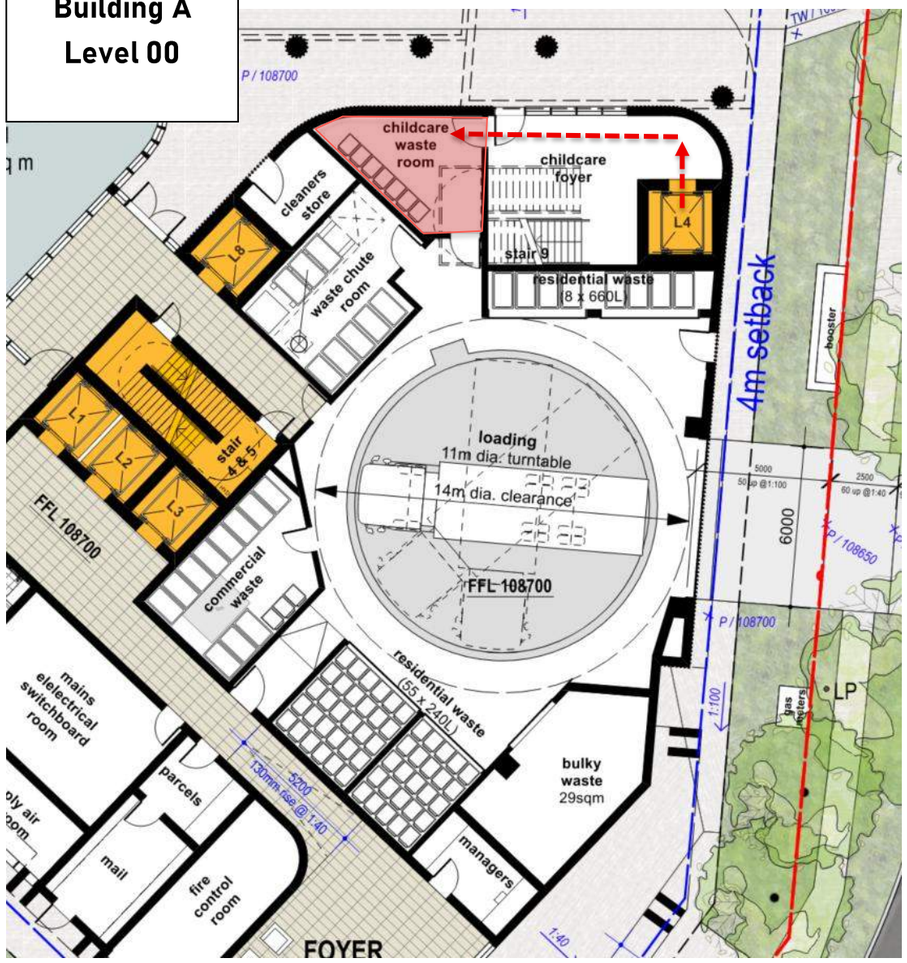
Commercial Buildings B & C will transfer waste from Level 00 via Lifts 5, 6 and 7 to Basement Level 01. Waste will then be moved across the basement, with the use of a bin tug, to Lift 8 and transported back up to Level 00 to the commercial waste room.

Waste paths shown with red arrows.

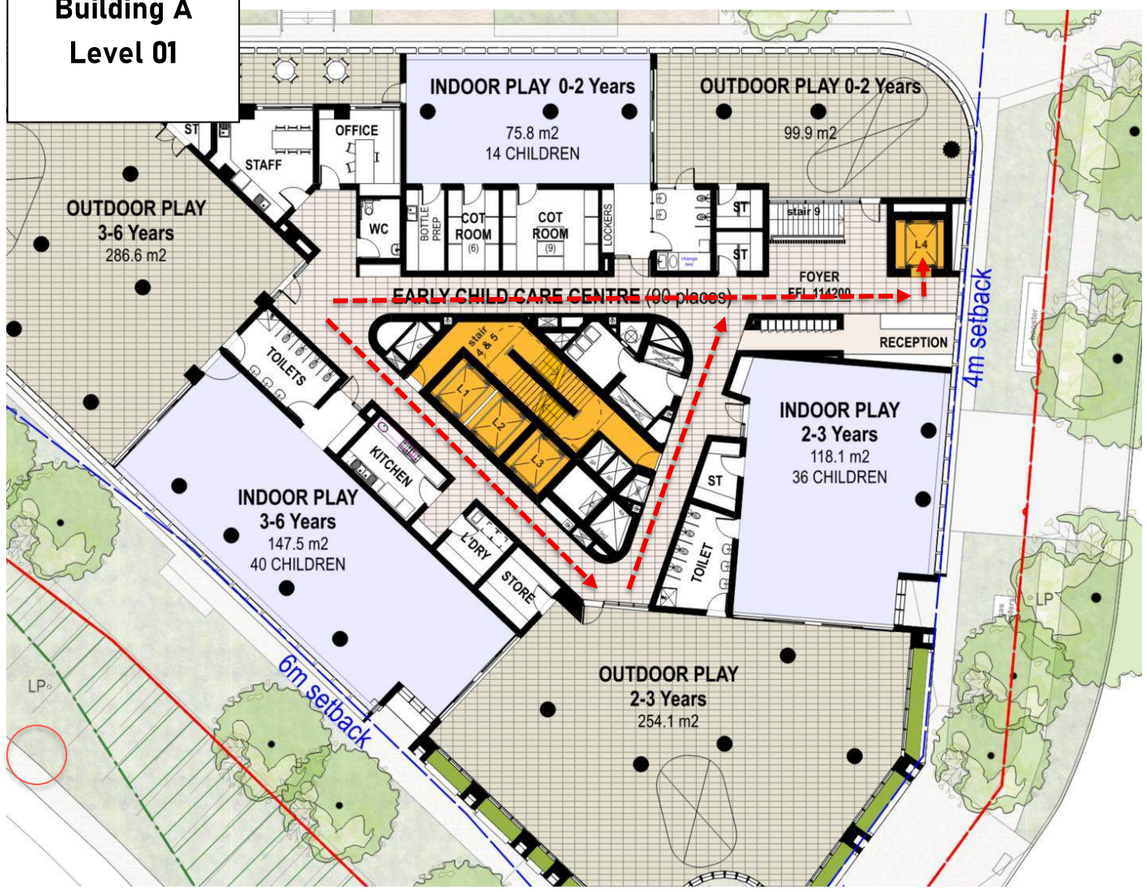
Childcare Centre Waste Transfer Pathways

Childcare staff will transfer waste and recycling via the L4 lift to designated Childcare Waste Room. Waste paths shown with red arrows.

Building A
Level 00



Building A
Level 01



Residential Buildings B & C Waste Transfer Pathways

The building caretaker will transfer 240L waste and recycling bins from each residential level, via L5 & L6 lifts, to Basement Level 01. The waste will then be moved across to Lift 8 and transported back up to Level 00 designated residential waste storage area for collections. Waste paths shown with red arrows.

Residential Buildings B & C Waste Transfer Pathways

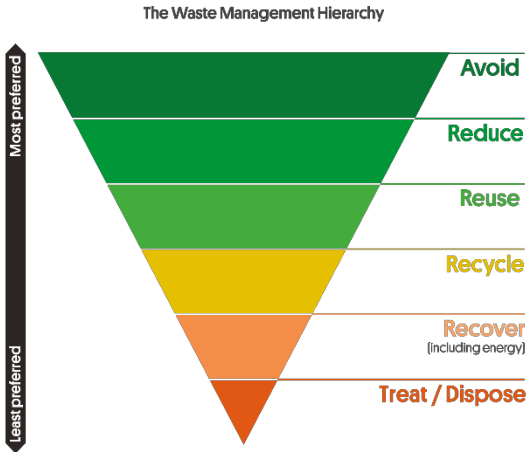
Typical Residential Waste Transfer Pathway to Bin Storage and Service Rooms

Waste paths shown with red arrows.

Typical Residential Level

Appendix C | Circular Economy Principles

Waste Management Principles



Avoid:
Adopt sound work practices during the demolition and construction processes that avoid the creation of waste products in the first place.
Reduce:
Reduce the use of materials during the demolition process that require treatment or disposal.
Reuse:
Ensure that wherever possible, materials are reused either on site or offsite
Reuse:
Ensure that wherever possible, materials are reused either on site or offsite

Record Keeping

On at least a quarterly basis the project applicant must be informed of:

a. The processes being used to monitor the re-use and recycling of construction and demolition waste;
b. The quantities achieved for re-used and recycled waste.

Records will be required to be kept of all wastes and recyclables generated and either re-used on site or transported off-site. It will be a condition of appointment that all contractors provide these records and that they also contain details of the facilities that the materials are transported to. Recording and monitoring processes are further outlined below:

1. Clear separation/ tracking system for waste from site to processing facility.

Prior to depositing materials at the site, trucks enter and go over the weighbridge the truck number is registered along with *Gross, Tare and Net weights* (as the truck departs).

As loads are deposited, a staff member visually analyses the load(s) and records the estimated volumes per material type. Data is reviewed that validates the process of incoming and outgoing loads for the types of accepted materials.

The Facility has a system to record all loads entering or exiting the site.

As materials from individual projects are recorded as to where generated and then recycled, the facility can accurately measure the percentage that is recycled.

This is then generated in a report provided to the clients.

2. Certified weighbridge and operational procedures.

A weighbridge should:

Demonstrate that they can quantify and provide an auditable trail for weights of inbound waste as well as weights of outbound recyclables and residuals and that they can prepare accurate reports and account for all inbound waste received and all outbound waste diverted from and to landfill.

The operating system should ensure the following information is captured:

- Date and time are recorded for all loads arriving and departing the site.
- Details of generating site recorded.
- Details of facility for departing loads recorded along with tonnage.

3. Source and fate of inbound and outbound waste.

Documents record all details for inbound and outbound loads.

Reports are provided to clients detailing the volume of materials accepted, disposal and percentages recycled.

Appendix D | Bin Specifications

Australian standard sizes for mobile garbage bins (MGBs)

Standard measurements

Bin type	120L MGB	240L MGB	660L MGB	1100L MGB
Height	940 mm	1080 mm	1250 mm	1470 mm
Length	560 mm	735 mm	850 mm	1245 mm
Width	485 mm	580 mm	1370 mm	1370 mm

120 litre MGB

240 litre MGB

660 litre MGB

Appendix E | Storage Area Design & Signage

The photographs below show examples of good practice in this regard:

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

Appendix F | Swept Path Diagrams

Swept Path Diagrams prepared by McLaren Traffic Engineering & Road Safety Consultants.

CHASSIS MODEL	MERCEDES ECONIC 2630 LL RHS (HIGH CAB) ACTUAL 6X4 EURO 6 (RFS FUPS)
BODY MODEL AND SIZE	REAR LOADER 24m3 COLLECTOR SERIES III CS RP HARD
SUB FRAME SPEC	N/A
AVERAGE PACK DENSITY (Kg/m3)	292

	TOTAL (Kg)	FRONT AXLE (Kg)	REAR AXLE (Kg)
CAB CHASSIS MASS	7770	4485	3285
BODY INSTALLATION MASS	6580	843	6037
BODY SUBFRAME MASS	234	61	174
DRIVER MASS	105	105	-5
FUEL MASS	165	28	61
ADDITIONAL OPTIONS MASS	250	-147	397
TOTAL TARE MASS	15400	6500	9975
NHVR GML, NT AND WA COMPLIANCE			
ESTIMATED PAYLOAD MASS	7000	7069	5931
TOTAL VEHICLE MASS ESTIMATE LOADED	22400	6037	15906
LEGAL AXLE LOADS	23000	6500	15906
NHVR CML & HML, NT WITH RFS AND WA AMMS 1 & 2 COMPLIANCE			
ESTIMATED PAYLOAD MASS	7000	1069	6037
TOTAL VEHICLE MASS ESTIMATE LOADED	22400	6037	15906
LEGAL AXLE LOADS	23000	6500	17000
MAXIMUM POTENTIAL PAYLOAD MASS	8100		

OPTIMISED FOR BEST PAYLOAD WITH MOST SUITABLE STD WB. (TABLE V11.7) 15/07/2020

ADDITIONAL OPTIONS INCL.: RL SII TUCKAWAY LIFTER, 75mm SUB FRAME, 6mm FLAT BAR.. REAR LOADER VOLUME INCL.: BODY & DOOR

REAR LOADER OPTIONS

DESCRIPTION	TOTAL (Kg)	FRONT AXLE (Kg)	REAR AXLE (Kg)
TOOLBOX DOUBLE	45	20	20
RL SII BIN STOP FRAME (BASIC)	39	-22	61
RL SII BIN STOP FRAME (PNEUMATIC)	45	-26	71
RL SII CANOPY	116	-58	174
RL SI/SII BIN STOP FRAME (FOR HEAVY DOOR ONLY)	28	-10	28

HAND WASH AND TOOL BOX ARE OPTIONS
FOR POSITIONAL REFERENCE ONLY

NOTES

1 WEIGHTS AND MEASUREMENTS ARE THEORETICAL / ESTIMATED ONLY AND ARE SUBJECT TO MANUFACTURING TOLERANCES.

2 THE LOAD CENTRE OF MASS IS AN ESTIMATE ONLY. THIS WILL VARY THROUGHOUT THE LOADING CYCLE AND WILL BE ENTIRELY DEPENDENT ON THE MAKE UP OF THE LOAD STREAM.

3 CALCULATIONS INCLUDE 200 LITRES OF FUEL AND A 100 DRIVER.

4 THE FRONT LEGAL AXLE LOAD IS BASED ON THE VEHICLE BEING FITTED WITH AN ECE R93 FUPS BAR AND A CAB COMPLYING WITH ECE R29. VEHICLE OWNER TO CONFIRM AXLE WEIGHTS WITH STATE AUTHORITIES AND VEHICLE SPECIFICATION WITH THE MANUFACTURER.

5.** MAXIMUM POTENTIAL PAYLOAD CAN OCCUR ONLY WHEN THE AXLE LOADS ARE FULLY EXPLOITED. THEREFORE ESTIMATED PAYLOAD DUE TO DISTRIBUTED MASS IS A MORE CONSERVATIVE ESTIMATE.

6 THE VOLUME BREAK DOWN IS AS FOLLOWS:

BODY (EX BLADE)	=	21.64 m3
HOPPER/REAR DOOR	=	03.00 m3
TOTAL	=	24.64 m3

7 THE ADDITION OF OPTIONS OVER AND ABOVE THE STANDARD SPECIFICATIONS MAY IMPACT ON THE MAXIMUM PAYLOAD THAT THE VEHICLE CAN LEGALLY CARRY.

8 NHVR COVERS EVERYWHERE EXCEPT FOR NT AND WA WHICH HAVE SEPARATE COMPLIANCE LAWS

PTO NOTES

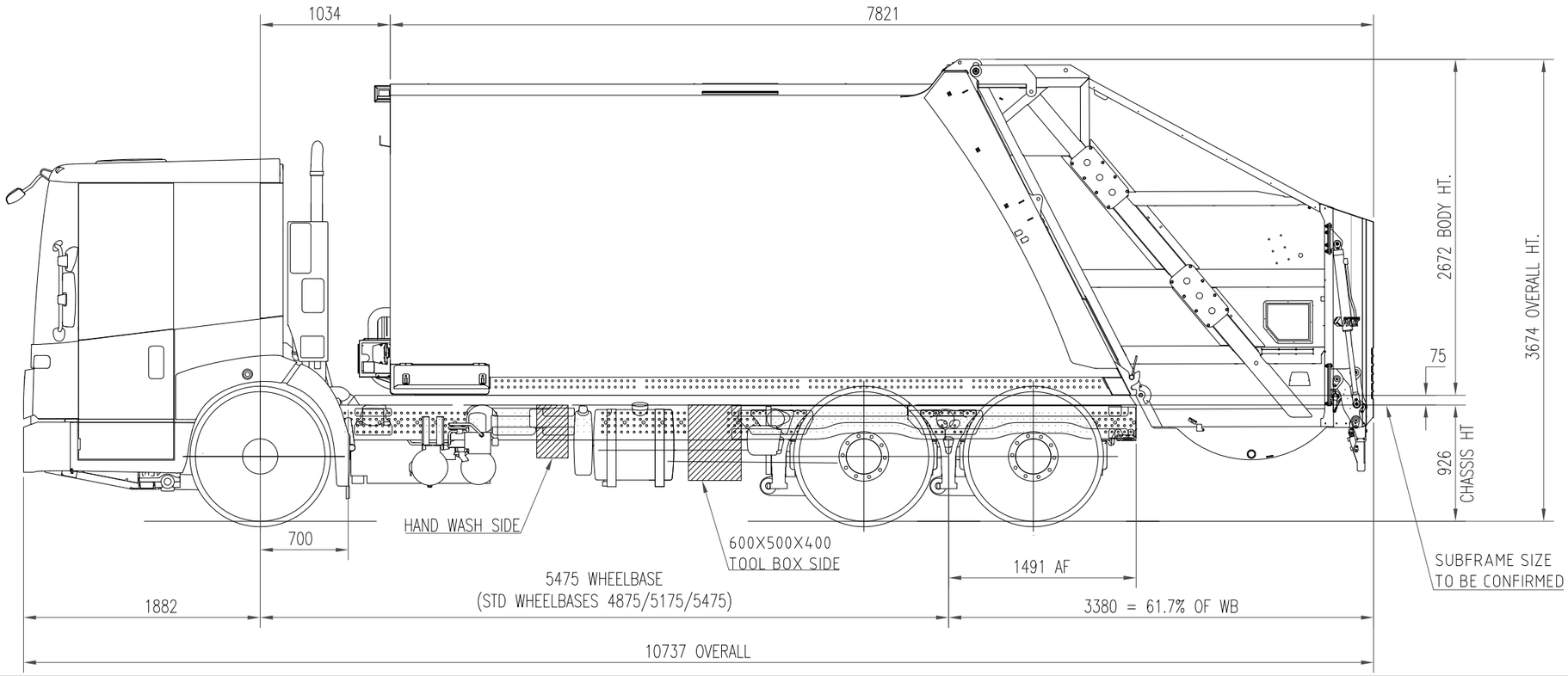
REFER TO THE LATEST "SPK-ENG-56-020 RL PTO SPEC" ON THE PORTAL

ADDITIONAL NOTES

BODY POSITION = 1034 (NO STD AVAILABLE) / OVERHANG = 61.7% (AU) / WHEELBASE = 5475 (AU) ACTUAL
INCREASED LEGAL AXLE LOADS MAY BE AVAILABLE, CONFIRM WITH VEHICLE MANUFACTURER AND STATE AUTHORITIES

REFERENCE ONLY

(UNSUITABLE CONFIGURATION - CUSTOMER TO ENSURE REAR OVERHANG EXEMPTION PERMIT CAN BE OBTAINED FOR THIS CONFIGURATION)



SUPERIOR PAK

A4

SHEET 1 / 2

	DWN	CHK	APP	REVISED BY	LAST REVISED
	SP	MLP	MLP	SP	01/07/2022
	01/07/2022	01/07/2022	01/07/2022		

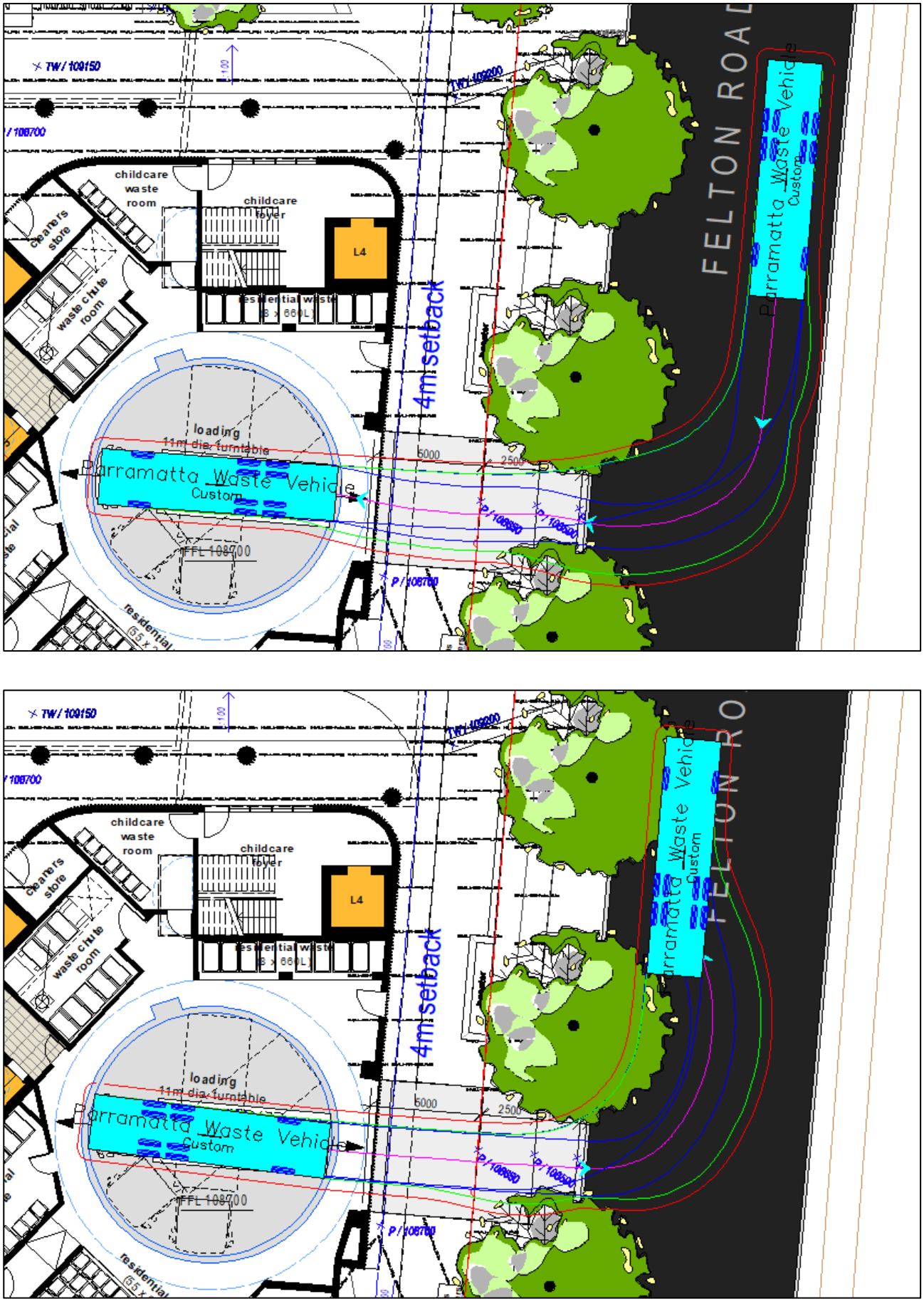
TITLE:

SPECIFICATIONS

RL SERIES III REAR LOADER
24m³ RAISED PROFILE MODEL (RP) HARD WASTE
MERCEDES ECONIC HIGH CAB AIRBAG (EURO 6) RFS FUPS

DRAWING No: RL22241064908

REV A



Parramatta Waste Vehicle Entry and Exit from Loading Turntable Successful