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Chapter 1 Early Learning Childcare Centre 13 Endeavour Road, Caringbah NSW 2229

Operational Waste Management Plan

June 2025

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1 Introduction

This Operational Waste Management Plan (OpWMP) has been prepared by Waste Audit & Consultancy Services (Aust) Pty Ltd ('Waste Audit') on behalf of Aliro Group for the proposed development at 13 Endeavour Road, Caringbah, NSW to provide guidance on expected operational general waste and recycling volumes; storage area requirements; bins and equipment and site/ contractor handling and collection practices.

Specifically, this plan is a stand-alone management plan which addresses the proposed Childcare facility to be operated by Chapter 1 Early Learning.

The OWMP provides descriptions of the following:

- Expected general waste, recycling and organic waste volumes, based on both Southerland Shire Council, Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities, 2012 NSW EPA and the City of Sydney Policy for Waste Minimisation in new developments standard generation rates for non-residential and operational data from other developments; future usage and floor area, and an expected occupancy rate of 100%
- Bin, equipment, and storage area sizing and construction requirements
- Collection vehicle specifications and servicing frequencies
- On-site handling and management practices
- Contractor collection and loading processes
- Ongoing management, monitoring, and reporting systems

2 Project Overview

The overall site features a frontage to Captain Cook Drive to the south, Endeavour Road and the Taren Point/ Caringbah industrial precinct to the west, Solander Fields to the east and Woolooware Bay (including shared pathway and mangrove forest further beyond to the north. An aerial view of the development site and surrounds is shown below;

Fig 1: Aerial view of the development

3 Reference Documents & Standards

The following documents have been consulted in preparing this OWMP:

- Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities NSW EPA
- Waste Collection for new Multi-Dwelling Housing and Residential Flat Buildings - Sutherland Shire Environmental Specification 2020
- City of Sydney Guidelines for Waste Minimisation in New Developments 2018

4 Operational Waste & Recycling Streams

4.1 Resource Streams

Each of these streams will require different operational management practices depending on the type of tenancy. Recommended systems are detailed in Section 5 of this report.

Generation rates have been derived from Sutherland Shire Environmental Specification 2020 and the *City of Sydney's Guidelines for Waste Minimisation in New Developments 2018* and have been used to calculate the volumes of materials that will be produced from the development's operations:

Table 1: Materials Generation Factors

Tenancy Type	Stream	Generation Factor/Area Requirement
Play Areas	General Waste	7 litres/100 m^2/day
	Recycling	7 litres/100 m^2/day
	Organics	2 litres/100 m^2/day
Staff - Office, Meeting, Kitchen and Training Rooms	General Waste	8 litres/100 m^2/day
	Recycling	6 litres/100 m^2/day

Each of the above streams may require different operational management practices depending on the type of area. These are summarised in Section 5.

In addition, other recycling systems such as liquid waste; e-waste; batteries; mobile phones etc. may be required on an ad-hoc basis. Systems for these streams will be available upon request from site management.

4.2 Volumes, Bins & Collection Frequencies

Tables 2 and 3 show combined bin numbers, sizes, and collection frequencies, based on 5 days per week operation for all areas. Bin sizes are in litres.

Tenancy areas have been calculated using GFA in line with the breakdown for indoor play, outdoor play, general teaching GFA, staff work, event and study spaces.

GFA has been adjusted to remove non-generating area components such as cot rooms, bookshelves, displays, service areas, storerooms, corridors and stairwells.

Table 2: Weekly Materials Generation

Tenancy	GFA m^2	Litres/Week Total		
		General	Recycling	Organics
Indoor play area	238	7	7	2
Outdoor play areas	567	7	7	2
Office, Meeting & Amenities	30	8	8	2

*Only active waste generating GFA has been used in determining volumes.

**Standard commercial waste generation rates as detailed in City of Sydney's *Guidelines for Waste Minimisation in New Developments 2018*

Table 3: Bin Numbers, Area Requirements, & Collection Frequencies

	Litres/Week	Bin Size	No.	Collections/ Week	Capacity/ Week	Bin Footprint m^2
General Waste	294	240	2	2	480	1.0
General Recycling	291	240	2	2	480	1.0
Organics	84	240	1	1	240	0.5
Total	668		5		1,200	2.5
Storage Area – Waste Room						9.5 m^2

Bin sizes will be 240 moveable bins with castors.

Appendix D provides details of all bins proposed to be used for storage of the development's operational general waste and recycling.

4.3 Storage Areas: General Requirements

Based on the predicted volumes and bin sizes, and proposed collection frequencies, the development's storage area sizing will be adequate for ongoing operational waste management requirements.

The respective storage area will have the following features:

- Located at the western side of the building near, where the collections will take place
- The waste area should provide separate containers for the separation of general waste, recyclables and where applicable organics
- Clear, colour-coded signage for the three (3) different waste streams
- The waste and recycling storage area is to be provided with an adequate supply of water for cleaning purposes with a hose cock
- The design shall, as much as possible restrict the entry of trespassers, vermin or other animals into the area
- Waste and recycling areas are to be provided with artificial light controlled by switches located both outside and inside the storage area

- Any compactors or mechanical devices, if permitted for the mechanical handling and storage of waste and recycling, are fitted with safety operating and cut-off systems
- Any facet of the waste and recycling management system that is visible from outside the building is to be in keeping with the dominant design of the remainder of the development
- Sufficient space must be allocated within the bin area to allow for access to all required bins by staff and waste collectors, as well as manoeuvring of bins within the bay and for the removal and return of bins by the waste collector

4.4 Bin Transfer & Collection

Building staff and cleaning staff will be responsible for bringing general waste, recycling material and where applicable organics, to the waste store at the end of each day (shown in Appendices A & B).

On designated collection days cleaning staff will be responsible for ensuring all bins are available for collection from the storage area by the collection vehicle operators.

All bin movements will be performed outside of standard building 'operational hours' to avoid traffic congestion. Collection vehicles for general waste, recycling and organics will access the vehicle entry point, off Captain Cook Drive.

The site will be serviced by the private waste contractor from the vacant visitor spaces outside the peak child care centre pick-up and drop-off periods. It is expected that the vehicle will be similar to a 6.4m in length Smal Rigid Vehicle.

This travel path is free from gradients, or level changes.

Collection vehicles for general waste, recycling and organics are shown in Appendix C.

4.5 Collection Vehicle Details

Table 4 shows a range of standard vehicle sizes.

Table 4: Industry Standard Vehicle Sizes

Trucks	Height	Width	Length
Medium Rigid Vehicle (MRV)	4.5m	2.5m	8.8m – 9.5m
Small Rigid Vehicle (SRV)	2.8m	2.5m	6.4m – 8.5m

The Rear-lift SRV collection vehicles shown in Appendix C have the following key specifications:

- 10 m^3 to 18 m^3 capacity chamber
- 660 Litre, 1.1 m^3 to 3.0 m^3 bin lifting capacity
- Ability to lift all bin sizes up to 3,000 litres
- 2.8 m operating height

An SRV will be sufficient for the development's ongoing general waste and recycling collections.

5 Management Systems & Internal Bins

Table 5 shows proposed management practices for the development's communal operational general waste, recycling and organics streams. The building will be equipped with internal bins clearly differentiated through appropriate signage and colour coding to reflect the materials contained, with each stream located in a designated storage area, with large and clear signage to assist in easy identification by users.

- Use separate garbage containers in the nappy change (must be covered bin), bathrooms, kitchen and play areas.
- Ensure indoor garbage containers are waterproof and have a tightly fitting lid.
- Line indoor garbage containers with appropriate bin liners.
- Empty daily at a minimum unless required more frequently and insert new liners.
- Clean indoor garbage containers weekly.

Table 5: Management, Storage, & Collection Systems

Area	Material Streams	Management, Storage, & Collection Systems
Internal Areas	General Waste, Recycling and Organics	Cleaners and staff will be responsible for moving all waste and recyclables from the internal bins and general communal areas to the correct general waste or recycling bins in the bin storage area. The private waste contractor will collect these materials on an agreed schedule. Collection vehicles for general waste, recycling and organics will access the vehicle entry point, off Captain Cook Drive. All collections are advised to be performed outside standard building operational hours to avoid congestion in this area.

We recommend providing the common and administrative areas with 3 stream bin hubs for:

- Commingled Recycling
- General Waste (primarily nappy bins)
- Organics

Bins should be situated in areas which effectively service a group of workstations and offices, with no bins under desks; this improves cleaning staff efficiencies by reducing the number of bins that require collection and reduces the number of bin liners required.

Examples of bins that are commonly used in office or communal settings are shown below. Differently coloured bin liners (general waste-black; paper-clear; commingled-blue) are recommended to assist cleaning staff to distinguish the different streams and enable them to identify contamination, prior to final disposal in the bins in the storage area.

Nappy Disposal

- Disposable nappies must be disposed of immediately.
- They are to be placed in the covered bin, besides the nappy change table.
- The bin then needs to be transported to the external waste bin, inaccessible to children.
- The nappy change bin needs to be emptied after a series of nappy changes or after an individual nappy change that is a bowel movement.
- All Nappies are to be placed in plastic bags that are tied or otherwise sealed appropriately.

For areas with bins kept within housings or pull-out drawers in kitchens and central areas, care must be taken to ensure these systems are well designed and provided with clear signage to foster proper separation. An example of best practice drawer design is shown below which provides for two streams (commingled recycling and general waste).

Practice, Cleanliness and Hygiene

- All boxes should be broken down prior to placing in bins.
- All decomposable rubbish should be tied or sealed bags.
- Keep outdoor garbage area clean.
- Do not place rubbish outside unless it will fit into the bin.
- Clean outdoor garbage container if there has been a spill.
- Monitor external waste bin and area for signs of pests and rodents and odours.

6 Waste Contractor Standards

To achieve and maintain best practice, the site'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

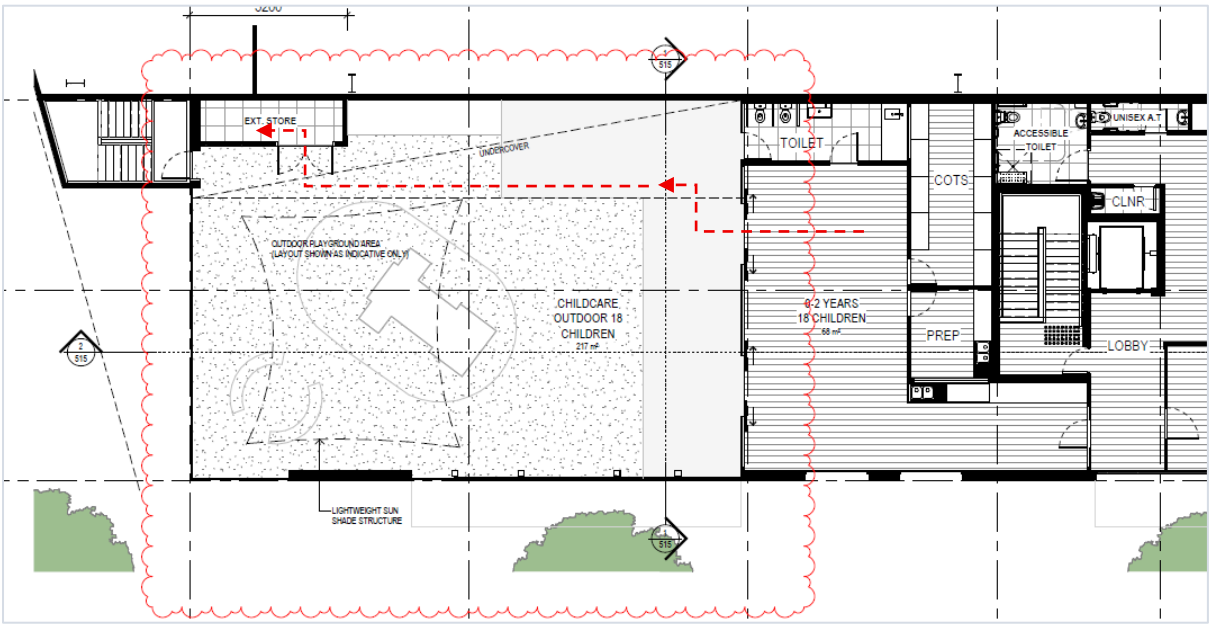
7 Tenant & Stakeholder Education

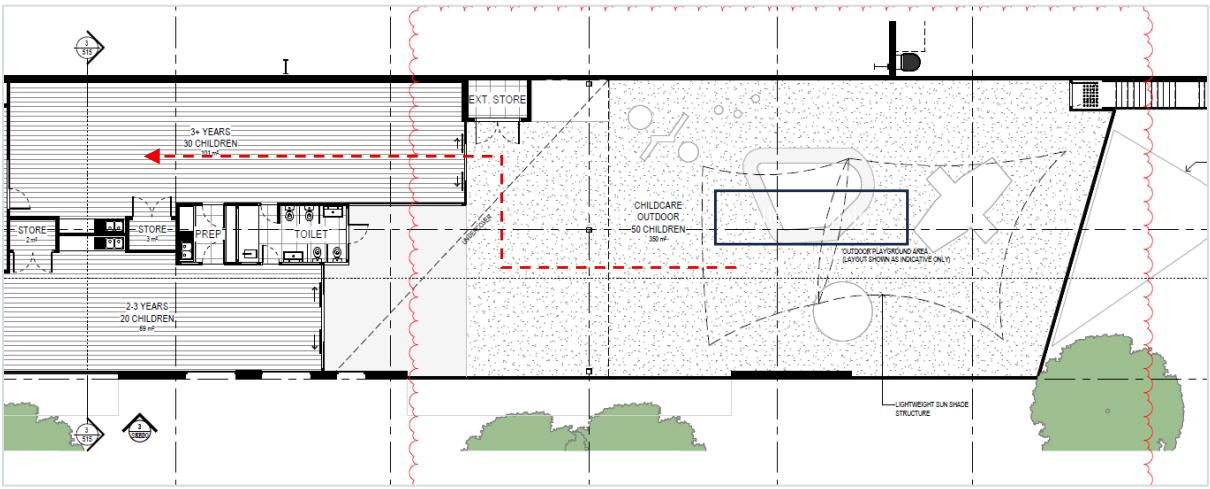
For the new systems to be successful, an education program will be required for the facilities staff and users.

All occupants will receive instructions on correct waste disposal procedures on moving into the building, both tenants and cleaning staff will be trained in maintaining correct segregation of materials.

Appendix A: General Waste & Recycling Storage & Movement

Waste Management Direction – First Floor

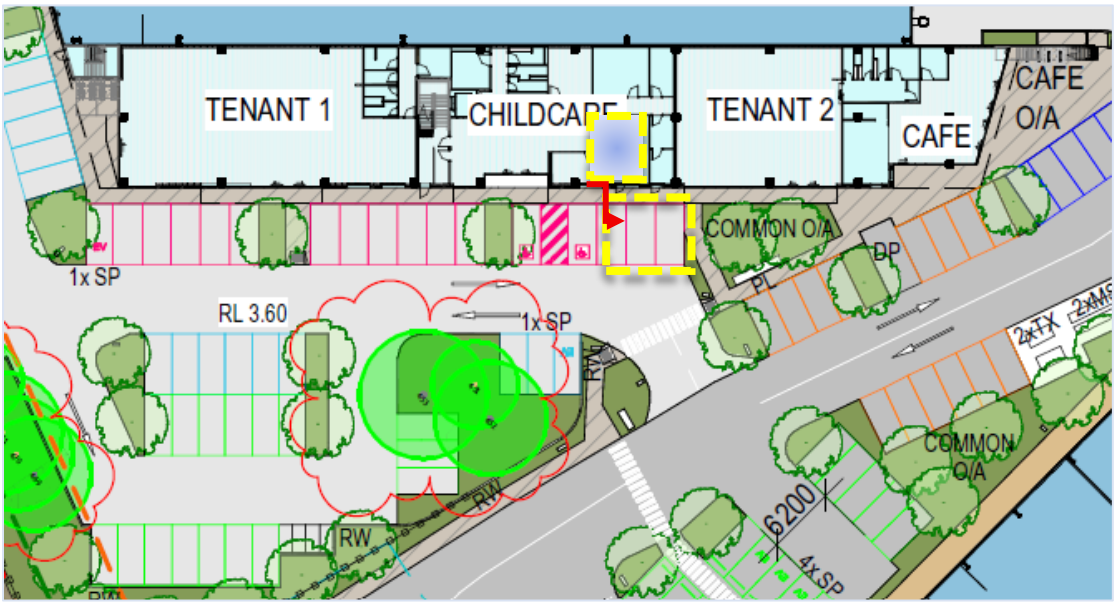




Appendix B: Collection Pathways

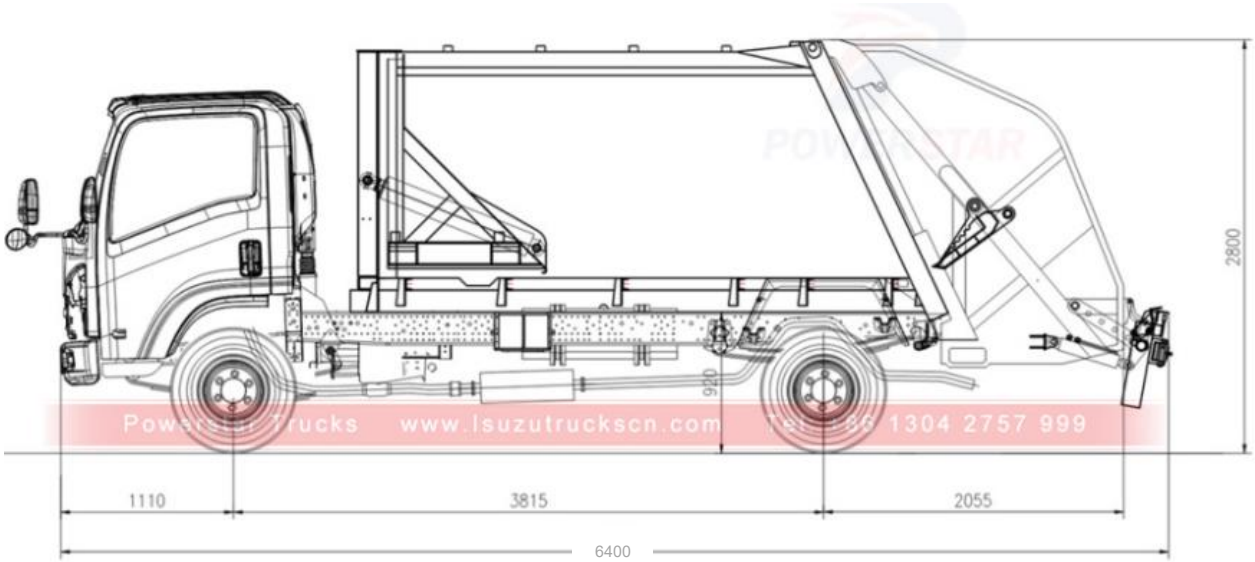
Waste Management – Internal Collection Area

The site will be serviced by the private waste contractor from the vacant visitor spaces outside the peak child care centre pick-up and drop-off periods. It is expected that the vehicle will be similar to a 6.4m in length Smal Rigid Vehicle.



Appendix C: Collection Vehicle Specifications

SRV - Rear Lift Collection Vehicle



Appendix D: Bin Specifications

Typical Nappy Bin

Appendix E: Storage Area 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.