

# 46-50 Nicholson Street and 59-67 Christie Street, St Leonards – Waste Management Plan

A Submission to The Trustee for St Leonards  
Property Unit Trust c/- Coronation Property

01 September 2025



## 46-52 Nicholson Street, St Leonards – Waste Management Plan

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### Version History

Ver	Date	Status	Author	Approver	Signature
0.1	27/04/2025	Draft	Tejeshwari Arjun	Marissa Delaveris	-
0.2	12/05/2025	Review	Marissa Delaveris	-	-
1	01/09/2025	Final	Tejeshwari Arjun	James Cosgrove	

### Disclaimer

This report has been prepared by Mike Ritchie and Associates Pty Ltd – trading as MRA Consulting Group (MRA) – to The Trustee for St Leonards Property Unit Trust c/- Coronation Property. MRA (ABN 13 143 273 812) does not accept responsibility for any use of, or reliance on, the contents of this document by any third party.

In the spirit of reconciliation MRA Consulting Group acknowledges the Traditional Custodians of Country throughout Australia and their connection to land, sea and community. We pay our respects to Aboriginal and Torres Strait Islander peoples and to Elders past, present and emerging.

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## Glossary

Terminology	Definition
AS	Australian Standard
BTR	Built-To-Rent
C&D	Construction and Demolition
C&I	Commercial and Industrial
DA	Development Application
DCP	Development Control Plan
ENM	Excavated Natural Material
EPA	Environment Protection Authority
LGA	Local Government Area
MGB	Mobile Garbage Bin
MRA	MRA Consulting Group
LCLEP	Lane Cove Local Environmental Plan 2009
LCDCP	Lane Cove Development Control Plan 2010
WMP	Waste Management Plan
WSP	Waste Service Provider
WSRA	Waste Storage and Recycling Area

# 1 Introduction

MRA Consulting Group (MRA) was engaged by The Trustee for St Leonards Property Unit Trust c/- Coronation Property to prepare a Waste Management Plan (WMP) to support a State Significant Development (SSD) Application for a proposed mixed-use development located at 46-50 Nicholson Street and 59-67 Christie Street, St Leonards. The site is located within the Lane Cove Municipal Council Local Government Area (LGA).

The proposed development includes the construction of a 36-storey Built-To-Rent (BTR) development with 541 apartments, communal areas, and residential amenities.

This WMP addresses the requirements of relevant authorities and conforms to the following environmental planning instruments and supplementary documents:

- Lane Cove Local Environmental Plan 2009 (*LCLEP 2009*)
- Lane Cove Development Control Plan 2010 (*LCDCP 2010*)
- Planning Secretary’s Environmental Assessment Requirements (SEARs) for SSDA-88113706
- NSW EPA (2019) *Better Practice Guide for Resource Recovery in Residential Developments (2019)*

A Waste and Recycling Management Plan has been prepared in accordance with the LCDCP 2010, and states the following objectives for waste management:

- 1) Encouraging building designs and construction techniques that minimise waste generation and maximise resource recovery, including reducing the use of non-renewable resources;
- 2) Requiring on-site source separation and other design and siting standards which assist waste collection and management services offered by Council and the private sector;
- 3) Ensuring waste from developments can be collected and disposed in a manner that is safe, efficient, and minimises disruption to amenity.

Additionally, this WMP addresses the relevant SEARs requirements as outlined in Table 1 below.

**Table 1: SEARs requirements**

Declaration		
Name	Marissa Delaveris	
Qualifications	BA Science (Environmental Sciences), Member of Planning Institute of Australia, (MRA is a member of WCRA)	
The undersigned declares that this waste management plan has been prepared in response to the following SEARs requirements issued for the Project on 31/07/2025 for SSD-88113706:		
SEARs item no.	SEARs Requirement	Relevant Section of this Report
18.	<p>Waste Management</p> <p>Identify, quantify and classify the likely waste streams to be generated during construction and operation.</p> <p>Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.</p> <p>Identify appropriate servicing arrangements for the site.</p> <p>If buildings are proposed to be demolished or altered, provide a hazardous materials survey.</p>	<p>Sections 3.0-5</p> <p>Hazardous Materials Survey not included within this report, to be complete by an appropriate consultant.</p>

Declaration

Signed



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Dated

29/08/2025

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This WMP is used to inform the building design to deliver best practice waste management and promote sustainable outcomes at the demolition, construction and operational phases of the development. The WMP addresses waste generation and storage associated with demolition and construction works through redevelopment, and ongoing occupation of the proposed use.

## 2 Background

### 2.1 Description of the Proposed Development

The proposed development includes:

- Demolition of seven 3-5 storey houses, vegetation and ancillary structures.
- Construction of a 3-storey Built-To-Rent (BTR) development featuring:
  - 541 residential apartments;
  - Communal spaces;
  - Residential amenities such a gym and pools;
  - 3 levels of basement parking;
  - Site landscaping along street frontages.

### 2.2 Location

The site made up 8 lots legally identified as:

- Lot 11/654462 – 46 Nicholson Street & Lot A/334878 – 46-48 Nicholson Street
- Lot SP54127 – 50 Nicholson Street
- Lot 1/949064 – 59 Christie Street
- Lot B/334878 – 61 Christie Street
- Lot 2/528060 – 63 Christie Street
- Lot 2/945933 – 65 Christie Street
- SP18047 – 4/67 Christie Street

There lots will form the address of 46 Nicholson Street, St Leonards within the Lane Cove Municipal Council LGA.

Figure 1: Site and surrounding area



Source: Nearmap, 2025.

## 2.3 Zoning and Use

The site is zoned as E2 – Commercial Centre according to the LCLEP. The objectives of this zone are:

- To strengthen the role of the commercial centre as the centre of business, retail, community and cultural activity.
- To encourage investment in commercial development that generates employment opportunities and economic growth.
- To encourage development that has a high level of accessibility and amenity, particularly for pedestrians.
- To enable residential development only if it is consistent with the Council's strategic planning for residential development in the area.
- To ensure that new development provides diverse and active street frontages to attract pedestrian traffic and to contribute to vibrant, diverse and functional streets and public spaces.
- To strengthen the role of St Leonards as a strategic centre, a health and education precinct and an urban renewal corridor.
- To maximise public transport patronage and encourage walking and cycling.

**Figure 2: Land use zone map**



Source: NSW eSpatial Viewer 2025.

## 2.4 Strategies

Waste management for the site considers better practice, necessary equipment, and integration with other guidance documents including the NSW Waste and Sustainable Materials Strategy (NSW EPA, 2021), and National Waste Policy: Less Waste, More Resources (DAWE, 2018). The key policy aims that are considered are:

- Avoidance (to prevent the generation of waste);
- Reduce the amount of waste (including hazardous waste) for disposal;
- Manage waste as a resource; and
- Ensure that waste treatment, disposal, recovery and re-use are undertaken in a safe, scientific and environmentally sound manner.

Management of waste generated onsite according to directives of the NSW Strategy will assist in achieving the target of 80% diversion from landfill in the C&D sector.

## 2.5 Assumptions

This report is a Waste Management Plan (WMP), forming part of the development documentation and assumes:

- Drawings and information that have been used in waste management planning for this WMP are the final design set for the development plan from the project architect, COX, 01/09/2025;
- Waste and recycling volumes are based on information provided from the LCDCP; and
- This WMP is a living document and therefore, waste management equipment and systems described in this report are subject to change based on future operations and available technology.

## 3 Construction and Demolition

Demolition and construction activities at the site will generate a range of construction and demolition (C&D) waste. Throughout the development process, all materials will be reused and recycled where possible, minimising the disposal (landfilling) of materials other than those that are contaminated or unsuitable for reuse or recycling processes.

Waste storage during construction operations will involve some stockpiling of reusable material, as well as placement of wheeled bins for the separation of construction materials for recycling. A bin for residual waste or contaminated material will also be made available at the site for disposal where necessary. Bins may require alternative placement across construction operations to facilitate the safe and efficient storage of materials and will be retained within property boundaries to avoid illegal dumping.

A waste storage area shall be designated by the demolition or construction contractor and shall be sufficient to store the various waste streams expected during operations. Waste storage areas will be kept clear to maintain access and shall also be kept tidy to encourage separation of waste materials and for WHS reasons. The waste storage area will retain multiple bins to allow for source separation of waste to allow for ease of recovery and reuse of materials.

Waste management principles, management measures and facilities in use on the site shall be included as part of the site induction for all personnel working on the site.

### 3.1 Demolition Waste

The proposed development will require demolition of existing structures prior to commencement of excavation and construction operations. Demolition works will include:

- Demolition of seven 3-5 storey houses, vegetation and ancillary structures.

Table 2 outlines the expected demolition waste quantities to be generated at the site, in addition to the appropriate management methods for each material type. Other materials with limited reuse potential either on or offsite will be removed in bulk bins for recycling at an appropriately licenced and capable recycling facility.

**Table 2: Demolition waste generation estimates**

Type of Material	Estimated volumes (m <sup>3</sup> )	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Disposal	Estimated % Landfill	Estimated % of landfill diversion	Methods for re-use, recycling or disposal
Concrete	1,000 – 1,500	✓	✓	✓	-	<5%	>95%	Onsite: Separated wherever possible and reused or crushed for filling, levelling or road base. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Glass	20 – 40	✓	✓	✓	-	<10%	>90%	On site: to be separated wherever possible to enhance resource recovery. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Bricks/pavers	200 – 300	✓	✓	✓	-	<5%	>95%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. The development will be able to reuse a number of existing building bricks as paving in landscaped areas. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Tiles	20 – 40	✓	✓	✓	-	<5%	>95%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Removed to C&D facility for crushing and recycling for recovered products.

Type of Material	Estimated volumes (m <sup>3</sup> )	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Disposal	Estimated % Landfill	Estimated % of landfill diversion	Methods for re-use, recycling or disposal
Timber (Treated)	25 – 50	✓	✓	✓	-	0	100	Onsite: To be separated wherever possible to enhance resource recovery. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Timber (Clean)	25 – 50	✓	✓	✓	-	50	50	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Plasterboard	50 – 100	-	✓	✓	-	<10%	>90%	Onsite: To be separated wherever possible to enhance resource recovery. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Metals (ferrous & non-ferrous)	25 – 50	-	✓	✓	-	<10%	>90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Removed to C&D facility for recovery and recycling.
Floor covering	20 – 40	-	✓	✓	-	50%	50%	Should be removed in bulk and sent to carpet recycler or C&D facility for recovery where possible.
Residual waste	50 – 100	-	-	-	✓	100%	-	Resource recovery dependant on facility destination capability.

Type of Material	Estimated volumes (m <sup>3</sup> )	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Disposal	Estimated % Landfill	Estimated % of landfill diversion	Methods for re-use, recycling or disposal
Hazardous Waste	Unknown	-	-	-		100%	-	Existing buildings may contain potentially hazardous materials. Should contaminated or potentially hazardous materials be discovered they would be handled according to the demolition and/or materials management plan
<b>Total % Diversion from Landfill Estimated</b>								<b>&gt;80%</b>

### 3.2 Construction Waste

Proposed construction consists of a 36-storey BTR development featuring:

- 541 residential apartments;
- Communal spaces;
- Residential amenities such a gym and pools;
- 3 levels of basement parking;
- Site landscaping along street frontages.

Table 3 outlines indicative volume to weight conversion factors for common construction materials.

**Table 3: Indicative volume to weight conversion factors for common construction materials**

Building waste material	Tones per m <sup>3</sup>	Waste as % of the total material ordered
Soil/aggregate	1.4 – 1.6	–
Bricks	1.2	5–10%
Concrete	1.5	3–5%
Tiles/ceramics	0.5 – 1	2–5%
Timber	0.3	5–7%
Plasterboard	0.2	5–20%
Metals	0.15 – 0.9	–

Source: *Green Building Code of Australia C&D Waste Criteria*.

Table 4 outlines the estimated waste generation rates for materials through construction of the proposed development, in addition to the appropriate management methods for each material type.

The information below presents multiple options for materials reuse, recycling and disposal where applicable (e.g. return to manufacturer, recycled at construction and demolition (C&D) processor, or disposed to landfill if contaminated).

**Table 4: Construction waste generation estimations**

Type of Material	Estimated Volumes (m <sup>3</sup> )	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Landfill	% of landfill diversion	Methods for re-use, recycling or disposal
Excavated material	30,000 – 50,000	✓	✓	✓	<5%	>95%	Onsite: Reuse for fill and levelling. Offsite: Removed from site for reuse as recycled fill material or soil. Disposal: Removal of any contaminated material for appropriate treatment or disposal.
Bricks/pavers /masonry	10 – 20	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Returned to supplier for reuse or removed to C&D facility for crushing and recycling for recovered products.
Concrete	50 – 100	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for filling, levelling or road base. Offsite: Removed to C&D facility for crushing and recycling for recovered products.
Tiles	<5	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Returned to supplier for reuse or removed to C&D facility for crushing and recycling for recovered products.

Type of Material	Estimated Volumes (m <sup>3</sup> )	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Landfill	% of landfill diversion	Methods for re-use, recycling or disposal
Timber (clean)	<5	-	✓	✓	<10%	>90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier for reuse removed to C&D facility for recovery where possible.
Timber (treated)	<5	-	✓	✓	50%	50%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier for reuse removed to C&D facility for recovery where possible.
Plasterboard	5 – 10	-	✓	✓	<10%	90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier or removed to a C&D/plasterboard recovery facility for recovery where possible.
Glass	<5	✓	✓	✓	<10%	>90%	Onsite: Separated wherever possible and reused or crushed for landscaping and driveways. Offsite: Returned to supplier for reuse or removed to C&D facility for crushing and recycling for recovered products.
Metals (ferrous and non-ferrous)	<5	-	✓	✓	<10%	>90%	Onsite: Separated wherever possible to improve resource recovery. Offsite: Returned to supplier for reuse or removed to C&D facility for recovery and recycling.

Type of Material	Estimated Volumes (m <sup>3</sup> )	Re-use on-site	Recycle (Separate collection)	Recycle (Off-site)	Landfill	% of landfill diversion	Methods for re-use, recycling or disposal
Floor covering	5 – 10	✓	✓	✓	<10%	>90%	On site: to be separated wherever possible to enhance resource recovery. Reuse: surplus and offcut material returned to manufacturer for reuse where possible. C&D processor: recovery and recycling.
Fixtures and fittings	Minor	✓	✓	✓	50%	50%	On site: to be separated wherever possible to enhance resource recovery. Reuse: surplus and offcut material returned to manufacturer for reuse where possible. C&D processor: recovery and recycling.
Electronic waste	Minor	-	✓	✓	<10%	>90%	Offcut wires and electronics separated where possible or returned to supplier for reuse.
Packaging materials (pallets, wrap, cardboard, etc)	40 – 80	-	✓	✓	<10%	>90%	Returned to supplier where possible or separated by material type for resource recovery.
Residual waste	25 – 50	-	✓	✓	100%	-	Resource recovery dependant on facility destination capability.
<b>Total % Diversion from Landfill Estimated</b>						<b>&gt;90%</b>	

### 3.3 Waste Contractors and Facilities

To ensure best practice waste management, appropriate contractors and facilities have been proposed based on their location and service offerings (Table 5).

**Table 5: Waste service contractors and facilities**

Role	Details
Recommended Waste Collection Contractor	<p>The following are local skip bin operators for consideration in the management of excavation and construction waste for the site:</p> <ul style="list-style-type: none"> <li>• BINGO Skips</li> <li>• Brown Bros Skips</li> <li>• Purple Cow Industries</li> </ul> <p>Or another supplier as elected by the building contractor.</p>
Principal Off-Site Recycler	<p>The following are local C&amp;D processing facilities for consideration in the management of C&amp;D waste generated at the site:</p> <ul style="list-style-type: none"> <li>• BINGO Industries: Recycling Centre - Artarmon</li> </ul> <p>Or another appropriate facility as elected by the waste management contractor.</p>
Principal Licensed Landfill Site	<ul style="list-style-type: none"> <li>• BINGO Eastern Creek Ecology Park</li> </ul> <p>Or other appropriate facility as elected by the waste management contractor.</p>

### 3.4 Site Documentation

This WMP will be retained on-site during the construction phases of the development, along with other waste management documentation (e.g. contracts with waste service providers).

Responsibility for the WMP, waste documentation and processes during the excavation and construction phases will be with the site manager or builder.

A logbook that records waste management and collection will be maintained on site, with entries including:

- Time and date of collections;
- Description of waste and quantity;
- Waste/processing facility that will receive the waste; and
- Vehicle registration and company name.

Waste management documentation, the logbook and associated dockets and receipts must be made available for inspection by an authorised Council Officer at any time during site works.

## 4 Operational Waste Management

### 4.1 Overview

Waste management strategies related to site operations have been established according to the LCDCP and NSW EPA guideline documents.

Operation waste management on the site will arise from the 541 residential units and the retail areas on site.

The following space calculations are based off the mobile garbage bin (MGB) and bulk bin dimensions sourced from NSW EPA's *Better Practice Guide for Resource Recovery in Residential Developments* (2019) (Table 6).

**Table 6: Mobile Garbage Bin (MGB) and Bulk Bin capacity and footprint**

Bin Capacity (L)	Height (mm)	Depth (mm)	Width (mm)	Footprint (Approx. m <sup>2</sup> )
240	1,100	735	580	0.41 - 0.43
660	1,250	850	1,370	0.86 - 1.16

Source: NSW EPA's *Better practice guide for resource recovery in residential developments* (2019).

### 4.2 Residential Waste Management

#### 4.2.1 Waste Generation

The Lane Cove DCP and EPA Best Practice Guidelines have been used to create accurate waste generation rates for the development. The LCDCP was used for general waste and recycling waste generation rates, however the EPA Best Practise Guidelines were used to account for FOGO waste.

**Table 7: Weekly Waste Generation Volumes**

Occupancy	Waste Stream	Generation rate	Weekly Volumes (L)
<b>Residential units</b> 541 units	General waste	80L/unit/week	43,280
	Recycling	40L/unit/week	21,640
	FOGO*	25L/unit/week	13,525
<b>Gym<sup>#</sup></b> 294 m <sup>2</sup>	General waste	10L/100m <sup>2</sup> /day	206
	Recycling	10L/100m <sup>2</sup> /day	206
<b>Total</b>	<b>General waste</b>		<b>29,961</b>
	<b>Recycling</b>		<b>21,846</b>
	<b>FOGO</b>		<b>13,525</b>

Note: \* FOGO waste generation rate based on EPA's Best Practise Guidelines

# Waste generation rates for the gym have been based on the office rates specified in the LCDCP, as is expected to be used by residents only and is not anticipated to generate high waste volumes.

#### 4.2.2 Waste Storage Requirements

Waste storage has been calculated considering estimations of bin type and waste volume handling infrastructure, as described in the Table 8 and Table 9. The following bin number requirements are based on Council's bin provision and collection services for multi-dwelling units.

**Table 8: Residential waste storage and bin type**

Waste Stream	Weekly Generation (L)	Bin allocation and collection frequency
<b>General Waste</b>	43,280 (21,640 with 2:1 compaction)	17 x 660L general waste bins collected <b>twice a week*</b>
<b>Recycling**</b>	21,640	8 x 660L mixed container bins (yellow) collected <b>twice a week*</b> 8 x 660L paper and cardboard bins (blue) collected <b>twice a week*</b>
<b>FOGO</b>	13,525	19 x 240 L FOGO bins collected <b>times a week*</b>

*Note: \*as per Council instruction collection frequency of more than the standard weekly collection can be provided by Council at an additional cost. Stored food waste stored is recommended to be collected at least three times per week to reduce risk of odour impact.*

*\*\* Assuming the recycling stream consists of mixed containers and paper/cardboard in equal (50:50) proportions*

**Table 9: Residential waste handling infrastructure**

Waste stream	Weekly generation (L)	Infrastructure	Approx. Area Required (m <sup>2</sup> )
General waste	21,640 (2:1 compaction rate)	General waste linear track (4 x 660L bins)	12.5 (1.6m x 7.75m inclusive of clearance around tracks)
		Spare general waste bins (13 x 660L bins)	23*
Recycling	21,640	8 x 660L mixed container bins (yellow) 8 x 660L paper and cardboard bins	28*
FOGO	13,525	FOGO bins (19 x 240L)	12*
<b>Bulky Waste Collected as required</b>			<b>30 m<sup>2</sup></b>
<b>Total space required</b>			<b>105.5 m<sup>2</sup></b>

*\*includes handling and manoeuvring space of bin footprint m<sup>2</sup> x 1.5*

Separate waste rooms and a bulky goods room has been provided on the upper ground floor (Appendix A) to store residential waste and is sufficient to provide space for proposed bins and bulky waste in accordance with the table above, at **105.5m<sup>2</sup>**.

Access to the main Waste Storage and Recyclables Area (WSRA) will only be for building management. It is expected that the site will require installation of volume handling system under waste chutes via a waste compactor and linear track to ensure waste chutes maintain serviceability. At a minimum, a linear track with the capacity to fit 4 x 600L bins will be required for general waste. Bins on the linear track will likely have to be swapped once a day

by building management to handle the volume of general waste generated in one day. Building management can observe the bin fullness levels once the site is fully occupied and adjust the number of bins accordingly.

Each residential level will have access to a dedicated room for the disposal of waste via a chute inlet and bins for recycling and organics as necessary.

### **Temporary waste storage and disposal**

Each dwelling is to be provided with space to store at minimum one day's garbage waste and recycling generated. Residents will be responsible for the transfer of waste from the dwelling to the chute rooms for disposal within appropriate bins and chutes.

Waste generated in communal areas (such as the gym) will be collected through clearly labelled split receptacle bins placed in accessible locations. These will be monitored and maintained by the building manager, with waste regularly removed and decanted into the main residential waste bins in the WSRA for scheduled collection.

### **Bulky Waste**

Bulky waste items include those that cannot be disposed of to general waste and recycling, including but not limited to broken/damaged/old whitegoods, furniture, appliances, mattresses, etc.

The site will maintain bulky waste storage areas separate from bin rooms, which will be accessible by all residents, and has been designed with an approximate area of **30m<sup>2</sup>** (see Appendix A). The room is suitable to accommodate the storage of bulky items prior to being collected from the loading dock by Council's waste contractor on scheduled collection days.

Residents can transport bulky waste items to the upper ground level via the passenger lifts. A bin tug will be used to facilitate the transfer of these items into the bulky goods room, along the internal corridor towards the loading dock. The bin tug will be stored within the bulky goods room.

#### **4.2.3 Residential chute rooms**

Each residential level will have access to a dedicated room for the disposal of waste via a chute inlet. Additional bins for recyclables (1 x yellow and 1 x blue 240L bins) and FOGO (1 x 240L bin) will be provided in each chute room to provide an efficient way for residents to dispose these waste streams.

Building management will be responsible for transferring recyclables from these interim bins to the main bulk bins. The WSRA will maintain a bin tipper to decant 240L bins into larger 660L bins for servicing purposes.

Building management can monitor fullness level of the FOGO bins on each residential level and swap out full bins with empty ones in the FOGO room.

This transfer of recyclables and organics can occur multiple times in the week through regular monitoring.

#### **4.2.4 Collection Schedule**

The bins will be collected from the loading dock (Appendix A) via Council or private waste contractor collection 2-3 times per week. It is understood that Council offers higher collection frequencies at an additional cost. As a result of this increased collection rate, the total number of required bins has been reduced, and the bin storage areas sized accordingly to optimise space.

While this approach does not strictly align with Council's requirement to design the WSRA based on a standard weekly collection frequency, the development has been future proofed through a contingency plan. In the event that Council reduces the service frequency or ceases to offer higher-frequency collections, a private waste contractor can be engaged to maintain the required level of service.

Additionally, as this is a BTR development, the long-term ownership and management structure offers enhanced oversight of waste services. Unlike traditional strata schemes, where waste management responsibility is shared across multiple owners with varying levels of engagement, BTR developments benefit from a single professional building manager who can implement and maintain efficient, consistent, and adaptable waste management practices. This centralised management model ensures that the development is better positioned to meet both current and future waste requirements.

## 5 Waste Management Systems

### 5.1 Waste Management System Summary

The following specific management methods are proposed for the various collection waste streams expected to be generated at the site, including alternative waste streams outside of general waste, recycling and organics:

- **General Waste:** General waste shall be placed within a tied plastic bag prior to transferring into collection bins. For collection purposes, general waste shall be stored within a mobile garbage bin (MBG).
- **Commingled Recycling:** All recyclables will be stored in commingled bins (mixed plastic, paper, cardboard, glass, aluminium, steel). All recyclables should be decanted loose (not bagged) with containers un-capped, drained and rinsed prior to disposal into the recycling bin. Paper should be flattened and placed in paper and cardboard bin if applicable.
- **Garden Waste:** It is expected that landscaping at the site will be maintained by an external contractor who will remove all vegetation waste from ongoing maintenance activities.
- **Paper and Cardboard:** Should large quantities of paper and cardboard waste be generated from proposed site uses a separate service may be suitable for application at the site. The contracted waste service provider may be able to provide separate paper and cardboard bins for the source separation and collection of paper and cardboard waste.
- **Food Waste:** Residential food organics collection is expected to be made mandatory in future for residences in the LGA. A kitchen caddy is to be provided for the separation of organic material in each residential unit. Residents will be required to empty caddies into a dedicated FOGO bin on each residential level.

Educational material will be distributed to residents to alert them of the change in their waste collection.

All waste infrastructure equipment proposed to facilitate the proposed waste management arrangement at the site is to be purchased by the developer prior to issuing of the OC.

### 5.2 Waste Management and Recycling Method

The flow of **residential waste and recycling** goes from generation to collection through several steps:

1. Waste is temporarily stored within the dwelling at its point of generation in an appropriately sized receptacle, clearly marked for type of waste (for example, in the kitchen);
2. Residents are to transfer waste to the residential chute room on each floor for appropriate disposal into the general waste chute or respective recyclables and FOGO bin.
3. Building management are responsible for maintenance of chutes, compactor, bins and the bin storage rooms, ensuring bins are clean and in working order.
4. Building management is responsible for monitoring bin fullness and switching out full bins where needed.
5. Building management is to ensure contracts with Council or private contractor, who also ensure appropriate collection scheduling and access is organised to minimise noise, odour, vermin, and visual amenity impacts to staff, visitors and the public.

### 5.3 Chute Specifications

The site will incorporate a single chute to manage residential general waste. Chutes will have an accessible inlet on every residential level and will discharge into 660L bins on a 4-bin linear track system in the WSRA. The chute and linear track will be managed in conjunction with a waste compactor.

Chutes will be designed according to the specifications in Part Q – Waste Management and Minimisation in the LCDCP (2010) as outlined below:

- Garbage chutes must be constructed in accordance with the requirements of the Building Code of Australia (BCA).

- Garbage chutes must be located and insulated in a manner that reduces noise impacts.
- Chutes, service openings and charging devices must be constructed of material (such as metal) that is smooth, durable, impervious, non-corrosive and fire resistant.
- Chutes, service openings and charging devices must be capable of being easily cleaned.
- Chutes must be cylindrical and should have a diameter of at least 500mm.
- There must not be any bends (or sections of reduced diameter) in the main shaft of the chute.
- Internal overlaps in the chute must follow the direction of waste flow.
- Branches connecting service openings to the main chute are to be no more than 1m long.
- Chutes must deposit rubbish directly into a bin or compactor located within a waste/recycling storage room.
- A cut-off device must be located at or near the base of the chute so that the bottom of the chute can be closed when the bin or compacting device at the bottom of the chute is withdrawn or being replaced.
- The upper end of a chute should extend above the roofline of the building.
- The upper end of a chute should be weather protected in a manner that doesn't impede the upward movement of air out of the chute.

#### 5.4 Management System and Responsibilities

The site manager will be responsible for the management of waste at the site. Should there be any issues that impact on the operational efficiency, safety and suitability of waste management, management will be responsible for making any necessary changes, responsibilities include:

- Using this WMP to inform waste management operations, design and infrastructure;
- Providing educational materials and information on sorting methods for recycled waste, awareness of waste management procedures for waste minimisation and resource recovery;
- Maintaining a valid and current contract with a licensed waste service provider for waste and recycling collection and disposal;
- Making information available to residents and visitors about waste management procedures;
- Organising, maintaining and cleaning bins as part of a regular maintenance schedule;
- Manoeuvring bins to specified onsite collection point prior to and following scheduled collection of waste bins;
- Organising bulky waste collections as required;
- Ensuring bin allocation and waste/recycling collection frequency is adequate. Requesting additional infrastructure or services where necessary; and
- Monitoring any vermin and pest issues and arranging appropriate controls (traps or fumigating) and maintenance of doors or other points of potential entry.

#### 5.5 Collection Method and Loading Areas

Collection points for the waste service provider (WSP) and areas for handling and loading are as follows:

- The development's allocated on-site loading dock is located adjacent to the WSRA and will be accessed from Nicholson Street via the north-east entrance;
- A 8m rigid waste collection vehicle can enter and exit safely in a forward direction with assistance from a turntable (see Appendix A);
- Waste collections will be scheduled to occur outside of peak visiting hours to avoid high associated traffic around the site;

- Clear, safe, accessible and convenient space will be available for handling of MGBs and equipment and loading of collection vehicles; and
- Identifiable areas where visitors and workers can recognise and avoid any risk associated with moving vehicles, and bin moving and handling.

**Table 10: Collection points and loading areas requirements and specification**

Component	Requirement	Specification
Collection point	Allow safe waste collection and loading operations	<ul style="list-style-type: none"> <li>- Adequate clearance and manoeuvring space;</li> <li>- Sufficient clearance for the safe handling of materials and equipment; and</li> <li>- Sectioned loading bay does not impede upon traffic and pedestrian safety.</li> </ul>
Vehicle manoeuvring and loading space	Truck space for adequate lift clearance, manoeuvring and operation for a contractor collection vehicle	<ul style="list-style-type: none"> <li>- Collection from each site use loading area by a rear lift collection vehicle;</li> <li>- Adequate loading bay dimensions to not impede lift clearance;</li> <li>- Operational clearance for truck manoeuvring in a forward direction; and</li> <li>- The provision of space clear of vehicle parking spaces (level and free of obstructions).</li> </ul>
Operating times	Appropriate collection times to limit noise and traffic disturbance	<ul style="list-style-type: none"> <li>- Collection times will be arranged during off-peak times to ensure minimal disturbance to pedestrians and visitors.</li> </ul>

## 5.6 Waste and Recycling Storage Areas

The waste areas will provide centralised storage that has adequate capacity to receive and store the maximum likely generation of waste and recycling between collection times. In accordance with LCDCP 2010, it is recommended that the bin storage areas be designed with the following considerations:

- Storage areas reflect the equipment, infrastructure, manoeuvring space and potential future needs of the development;
- Be located within the premises in reasonable proximity to the vehicle entrance;
- Be located in a position that is convenient for users and waste collection staff, located away from habitable rooms;
- Access to the general waste chute and bins will be restricted from residents;
- All waste and recycling storage areas and access paths to be kept clean and free of obstructions;
- Provided with an adequate supply of hot and cold water mixed through a centralised mixing valve with hose cock;
- The floor being graded and drained to an approved drainage outlet connected to the sewer and having a smooth, even surface, coved at all intersections with walls;
- Provided with artificial light controlled by switches located both outside and inside the rooms.
- The walls being constructed of solid impervious material and cement rendered to a smooth, even surface and coved at all intersections; and
- The room shall be adequately ventilated (either natural or mechanical) in accordance with the Building Code of Australia.

## 5.7 Signage

Signage that promotes resource recovery, waste minimisation, safety and amenity follows the Australian Standard for safety signs for the occupational environment (Standards Australia, 1994).

Signage will be designed to consider language and non-English speaking backgrounds, vision impairment and accessibility. Illustrative graphics must form a minimum 50% of the area of the signage. Signage is to be prominently posted in the waste room indicating:

- Details regarding acceptable recyclables;
- Recyclables are to be decanted loose (not bagged);
- *No standing* and *danger* warnings apply to the area surrounding the waste storage area;
- Contact details for arranging the disposal of bulky items; and
- The area is to be kept tidy.

Standard signage requirements and guidance for application apply (see Appendix B).

## 5.8 Prevention of Pollution and Litter Reduction

To minimise dispersion of litter and prevent pollution (to water and land via contamination of runoff, dust and hazardous materials), building management and the site cleaning staff will also be responsible for:

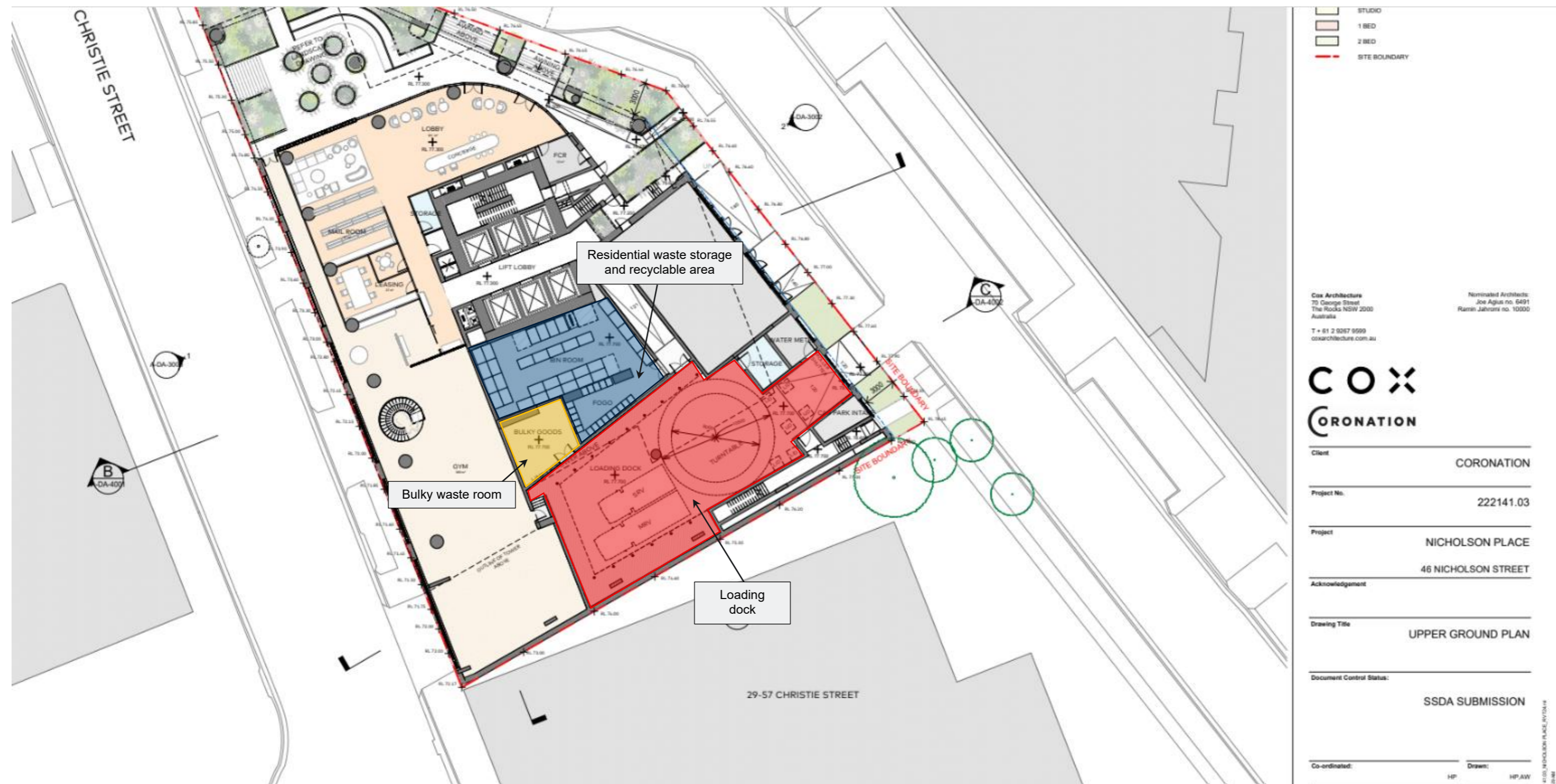
- Maintenance of open and common site areas;
- Ensuring waste areas are well maintained and kept clean;
- Securing the waste storage area from vandalism and the escape of litter;
- Identification and appropriate disposal of goods with hazardous material content (paints, e-waste, fluorescent tubes);
- Taking action to prevent dumping and unauthorised use of waste areas; and
- Requiring contractors to clean up any spillage that may occur during waste servicing or other work.

## 6 References

- Australian Department of Sustainability, Environment Water, Population and Communities (2011) Construction and Demolition Waste Guide - Recycling and Re-use Across the Supply Chain.
- Australian Standards 4123.7 Mobile Waste Containers.
- Lane Cove Development Control Plan 2010.
- Lane Cove Local Environmental Plan 2009.
- NSW EPA (2012) Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities.
- NSW EPA (2021) NSW Waste and Sustainable Materials Strategy 2041.
- NSW EPA (2014) Waste Classification Guidelines.
- NSW EPA (2016) Recycling Signs, Posters and Symbols. Available at: <http://www.epa.nsw.gov.au/wastetools/signs-posters-symbols.htm>.
- NSW EPA (2019) Better Practice Guide for Resource Recovery in Residential Developments.
- NSW Government (1979) Environmental Planning and Assessment Act.
- NSW Government (1997) Protection of the Environment Operations Act.
- NSW Government (2000) Environmental Planning and Assessment Regulation.
- NSW Government (2001) The Waste Avoidance and Resource Recovery Act.

# Appendix A Proposed Site Plans

Figure 3: Proposed upper ground floor plan



Source: COX Architecture, 2025.

# Appendix B FOGO Recycling Bill Summary 2025

## FOGO Recycling Bill 2025 Information for Councils

### Key Requirements



#### By 1 July 2030

Local councils must:

- Provide all households with a food organics and garden organics (FOGO) waste service (either a FOGO bin or separate FO and GO bins)
- Provide weekly household collection of FOGO waste
- Ensure FOGO waste is not mixed with non-organic waste during collection



### Regulations

A FOGO Implementation Advisory Panel will be established to:

- Provide advice to the Minister and EPA about implementation of this mandate
- Be consulted about matters to be prescribed in regulations regarding this mandate

### Exemptions

The FOGO 2025 mandate does NOT apply to:

- Households not provided with a residual waste (red bin) collection service by their local council
- Lord Howe Island
- Parts of the Western Division not within the area of a local council

The EPA will develop an exemption framework which will consider:

- Geographical or population constraints
- Availability of infrastructure
- Timing and expiration of waste contracts
- Infrastructure impairments of multi-unit dwellings (MUDS) e.g., bin chutes

## Appendix C Waste Equipment Options

# Tug Compact POWERED TUG



A nimble powered tug that allows a user to tow up to 500 kg safely. It is the ideal tug for towing document, stock, bin, linen and medical trolleys in and around tight spaces and aisles with ease.

Using the tiller handle to tow the tug, the operator is in front of the load, increasing visibility and reducing the risk of collisions.

Powered towing can eliminate push/pull injuries caused by manually moving heavy trolleys or repetitive movements.



### Typical applications

Suitable for warehouses, hospitals, linen service, casinos, hospitality, universities.

### Features

<b>Tow capacity</b>	500 kg on flat ground.
<b>Max. speed</b>	Up to 5 km/hour
<b>Speed mode</b>	Three speed control with forward, reverse and emergency stop.
<b>Usability</b>	<ul style="list-style-type: none"> <li>• Grey non-marking tyres.</li> <li>• No driver's licence required.</li> <li>• Simple to use.</li> <li>• Quiet, smooth operation.</li> <li>• Zero emissions.</li> </ul>
<b>Hitching</b>	<ul style="list-style-type: none"> <li>• Supplied with a pin hitch.</li> <li>• Wide variety of hitches available for easy attachment to trolleys.</li> </ul>
<b>Dimensions (L/W/H)</b>	1100/609/891 mm (handle down)
<b>Battery</b>	Two 12V 33Ah MK-gel batteries with 24V smart charger

### Safety features

- Intuitive control with standard automatic safety brake, forward and reverse drive.
- Emergency stop button.
- Emergency back-off button.

### ORDER CODES

Tug Compact 500 kg	TUGCOM500NH
Pin hitch (16 mm)	EDHT1810-002
Pin hitch (19 mm)	EDHT1810-043
Clamp hitch*	EDHTCLAMP001
Self-centering hitch	EDHT1810-006

\* Each clamp hitch must be supplied with EDHT1810-006 (self-centering hitch) for the Tug Compact.

# 660 LITRE LINEAR TRACK SYSTEM

## PRODUCT INFORMATION

Elephants Foot 660 Litre bin Linear Track System is a versatile waste handling solution for many types of multi-storey or multi-level developments. The Linear Track System collects waste or recycling being disposed from the floors above through the chute system, discharging the material via a hopper that feeds the bins. Electromechanically driven with automated operation, the system utilises linear motion to automatically change over full bins. Once all the bins are filled, an indicator light will illuminate signifying that the bins are ready for withdrawal and collection. Available with or without compaction unit, our standard 660 litre bin Linear Track System is available in standard 2 or 3. Our 4 Bin option is available as a special order.



## SPECIFICATIONS

System Control	Electric PLC
Power Supply	415 V AC / 20A / 5 PIN
Motor Size (kW)	0.55
Maximum bin load	265 kg
Noise (dBA)	<85
Bin Size (L)	660
Cycle time (sec)	60
Bin Quantity options	2, 3, or 4

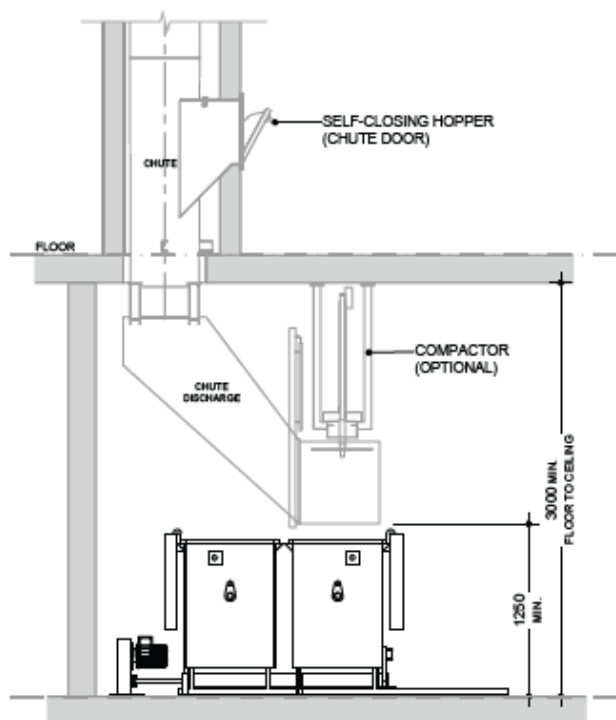
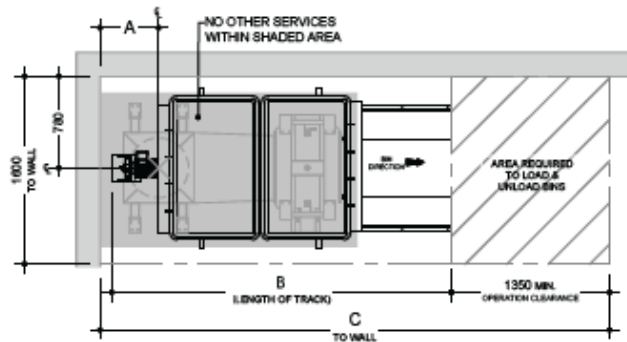
## OPTIONAL EXTRAS

- Compaction unit – Please refer to the bin compactor product information sheet for details and specifications
- Enhanced safety add on's – Interlocking barriers, occupancy sensors or safety light curtains (presence sensing light barriers)
- Full bin SMS and email notification
- CMMS and BMS integration
- Extend warranty – Terms and conditions apply

## STANDARD FEATURES & BENEFITS

- Simple operation with user friendly controls
- Increased waste servicing efficiency for the development
- Automatic system control with manual override
- Robust unit construction for long performance life
- Low service and maintain costs
- Rotating flashing beacon (activated during operation)
- Quiet and efficient system operation
- Maximise safety for residents, caretakers and collectors
- Restrained design with minimal moving parts
- Can suit low ceiling clearances
- Floor contact components fully galvanised steel
- Retro fitting options to suit other chutes systems
- Compliant with relevant Building Codes and Standards
- Standard 12 month warranty

# LINEAR TRACK SYSTEM



# 660 LITRE BIN

660 LITRE BIN LINEAR TRACK SYSTEM			
No. of Bins	Reference (mm)		
	A	B	C
2	500	2950	4350
3	1450	4650	6050
4	2300	6300	7750

### Notes:

Bins not provided by Elephants Foot

Drawings shown are for general information purposes only and provide minimum equipment spacial requirements for waste room design.

These drawings are not intended for site specific use or for construction. Each project is unique and will be designed to suit.

Additional equipment options, systems and configurations are available. For design assessment, information and advice, please contact an Elephants Foot design consultant on 1300 435 374

Source: Elephants Foot, 2023

## Battery Electric Wheelie Bin Tipper (Fully Enclosed)

- The robust, fully enclosed Verdex bin tipper is the safest & most innovative unit of its kind
- It comes standard with an 1800mm tipping height which is suitable for almost every environment & application. The unit is super efficient & incorporates an Auto Tip feature & can also be operated from a distance via a remote control hand piece. For added safety it is fitted with interlocking doors to remove the risk of anything obstructing the cradle while in use
- The Verdex bin tipper has a capacity of 250kg & the standard multi-purpose cradle is designed to accommodate 80, 120 & 240 litre bins
- Power Supply: Battery with 240v built in charger



Code	Capacity (kg)	Overall Size LxWxH (mm)	Unit Weight (kg)
M6082	250	1170x1800x2865	276

## ABOUT MHA PRODUCTS

At Manual Handling Australia (MHA), we have the largest range of manual handling and workplace materials handling equipment in Australia. This includes thousands of workplace and storage items suited to every workplace and lifting equipment and trolleys for almost every application. Our products aim to eliminate or reduce manual handling effort in the workplace, while boosting productivity and ensuring workplace safety.

MHA has over many years spent countless hours on product development and sourcing to ensure we can get products to make your workplace not only safer but more efficient.

MHA sources products from all over the world and sells them direct meaning there is no middle man or middle margin added giving you the best possible price and faster service. We also offer customised solutions with trolleys, lifters and many other materials handling equipment to ensure you have the perfect product to improve the safety and efficiency of your workplace.

MHA is dedicated to providing you with the highest quality products at the best possible price, with the best possible service. With a long and trusted reputation in the industry, MHA is a name you can rely on.

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FREECALL 1800 750 900

Source: MHA Products, 2025

## Appendix D Standard Signage

### Waste Signage

Signs for garbage, recycling and organics bins should comply with the standard signs promoted by the NSW EPA.

Standard symbols for use in signage, bin facade and educational materials are promoted through the NSW Environment Protection Authority. They are available for download from the NSW EPA website (NSW EPA 2016b), in black and white and colour versions. The Australian Standard series AS 4123 (Part 7) details colours for mobile waste containers (Standards Australia 2008).

Figure 4: Examples of standard signage for bin uses



### Safety Signs

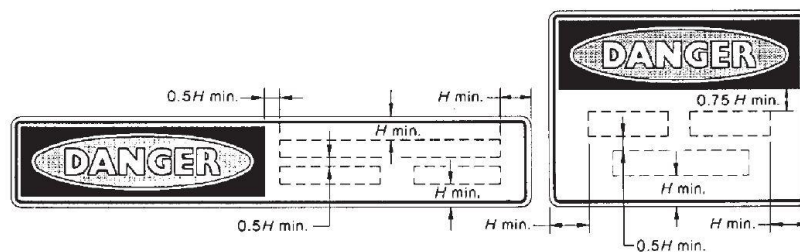
The design and use of safety signs for waste and recycling rooms and enclosures should comply with AS 1319 (Standards Australia 1994). Safety signs should be used to regulate, and control safety related to behaviour, warn of hazards and provide emergency information, including fire protection information. Below are some examples. Clear and easy to read 'NO STANDING' and 'DANGER' warning signs must be fixed to the external face of each waste and recycling room where appropriate.

Figure 5: Example and layout of safety signage



(d) Horizontal

FIGURE D5 TYPICAL ARRANGEMENTS OF DANGER SIGNS



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