APPENDIX 3 WASTE MANAGEMENT GUIDE

3.1 INTRODUCTION

This Appendix contains a copy of Council's Waste Management Guide.

3.2 RELATIONSHIP TO OTHER SECTIONS

This Appendix should be read in conjunction with:

- Part B: Section 1 – Residential Development,
- Part B: Section 2 – Commercial and Mixed Use Development, and
- Part B: Section 3 – Non-Residential Development in Residential Zones.

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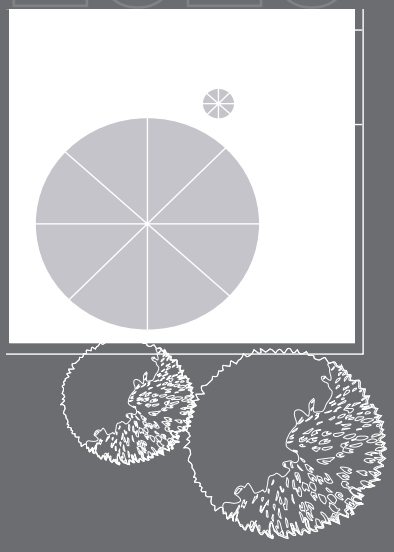
WASTE MANAGEMENT GUIDE

for designers
and builders of houses,
residential and commercial buildings

2020



INTRODUCTION

The guide gives essential information to architects, developers and builders for the design and construction of waste handling facilities in new developments.

The guide expands on requirements for waste facilities contained in Council's Development Control Plan (DCP) and development application conditions.

The guide ensures that all waste facilities in new or existing developments comply with Council's collection service and waste minimisation policy.

Basic requirements for waste facilities are:

- adequate size
- integration with building design and site landscaping
- suitable screening from public areas
- appropriate access for collection
- ensuring WHS requirements for waste contractors are met

To avoid subsequent alteration of plans these requirements should form part of the overall design for the new building.

To ensure your building design meets the requirements, see the checklist below prior to lodging your development application:

Does your waste facility design meet

- The type of waste and recycling collection service conducted by Council's waste contractor?
- Reasonable distance and accessibility from the street frontage for residents and contractors?
- Public health standards and amenity of the surrounding area, such as odour, noise and visibility of the bins?
- Adequate size, dimensions and finishing materials?
- A high standard of recycling through source separation?
- The requirements for general household and green waste collections?
- Separate waste storage areas for mixed use buildings ie. commercial and residential?
- The Work Health and Safety requirements of waste collectors?

GARBAGE STORAGE AND HOLDING BAYS

New residential and mixed residential/commercial developments in the North Sydney Council area must be provided with a garbage storage and/or holding bay facility of sufficient size to accommodate all waste from the building.

Waste facilities may be:

- a combined storage and holding bay located within 2 metres of the street alignment or public access
- or garbage storage area at any other location on the site, provided there is a temporary holding bay located within 2 metres of the street alignment or public access.

Garbage and recycling bins must be placed within 1.5 metres from the entrance of a combined storage and holding bay or temporary holding bay, with 2 metre direct access from the street frontage to the bins. Waste contractors should not have to climb steps or enter doors to access bins.

DESIGN OF FACILITIES

Although developments may vary widely in their individual requirements, the following minimum requirements should apply:

The standard waste service for North Sydney Council area is

> one 80L garbage bin, collected weekly per rateable property

> and one 140L mobile recycling bin, collected weekly per rateable property.

Multi-unit buildings may choose to upgrade to 80, 120 or 240 litre capacity mobile bins for the collection of garbage and a 240L mobile bin for the collection of recyclables. A comprehensive collection service for garden waste and household clean-up material is also provided. Additional space must be provided for the storage of household and green waste clean-up materials.

Detached Houses

A dedicated waste holding bay area should be provided that is accessible within 2 metres of the street alignment. Where servicing is from a rear lane, the holding bay may be built into the fence structure, with direct access from the lane.

The area must be able to accommodate a minimum of

> 1 x 140L mobile recycling bin

> and 1 x 80L garbage bin for each dwelling.

Villas, Townhouses and Low-Rise Developments

Villas, townhouses and low-rise developments are generally one to two storeys high with two or more dwellings on the same site.

Waste facilities may be:

> a combined storage and holding bay located within 2 metres of the street alignment or other public access

> or a garbage storage area at any other location on the site, provided there is a temporary holding bay located within 2 metres of the street alignment or other public access.

The waste facilities must ensure:

> stored waste does not create dust, leachate, odour, or unsightliness

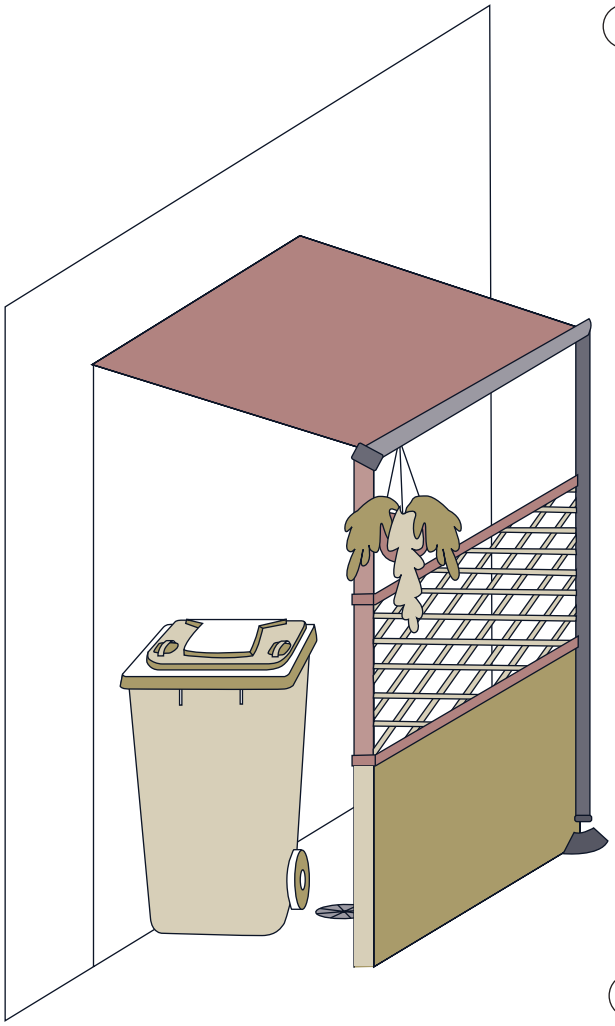
> permanent storage facilities for putrescible waste must be shaded, ventilated, water-proof, verminproof and drained to sewer. Note, a building with a permanent storage facility more than 2 metres from the street alignment must also have a temporary holding bay.

> storage bins are conveniently located both for residents and contractors

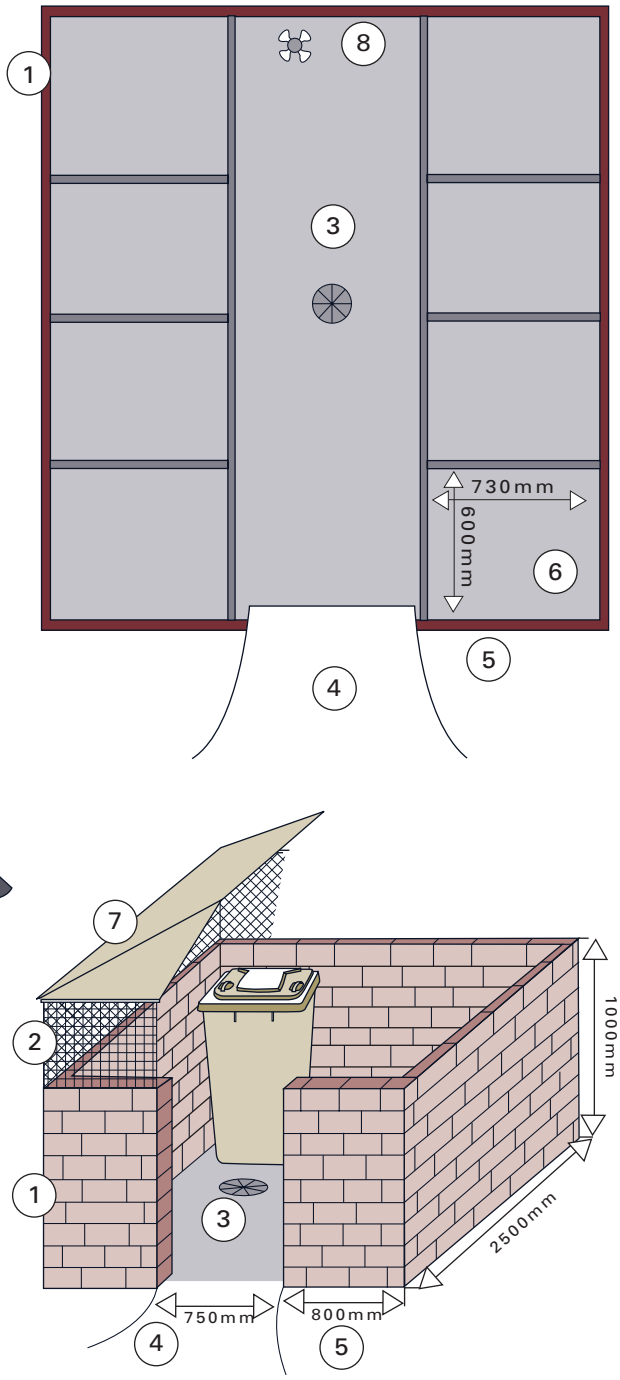
> storage bins can be easily moved from the waste storage area to the collection vehicle

> storage and collection systems are designed to minimise noise, especially during collection of waste

EXAMPLE DIAGRAMS OF HOLDING BAY STYLES FOR VILLAS, TOWNHOUSES AND LOW-RISE DEVELOPMENTS



Outdoor storage/holding bay for block of 1-3 units

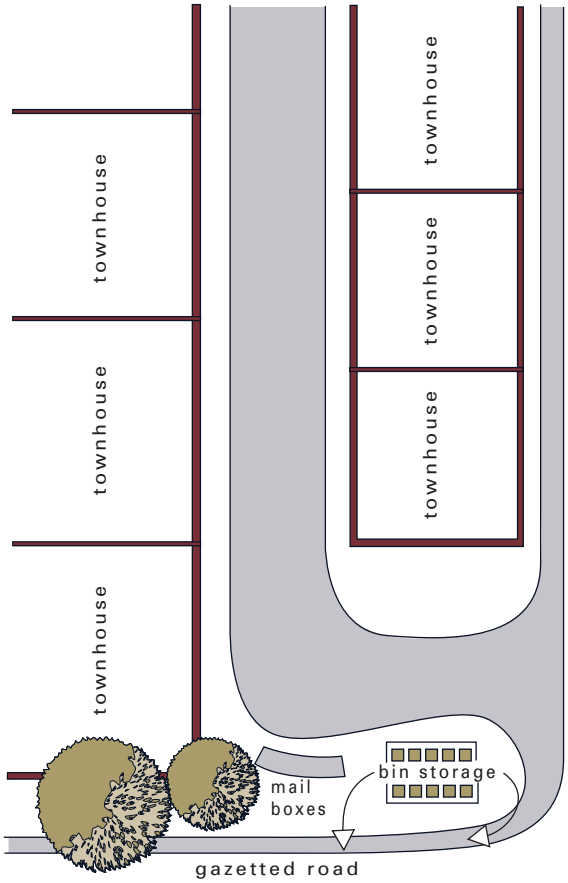


Outdoor garbage storage/holding bay for block of 4-12 units

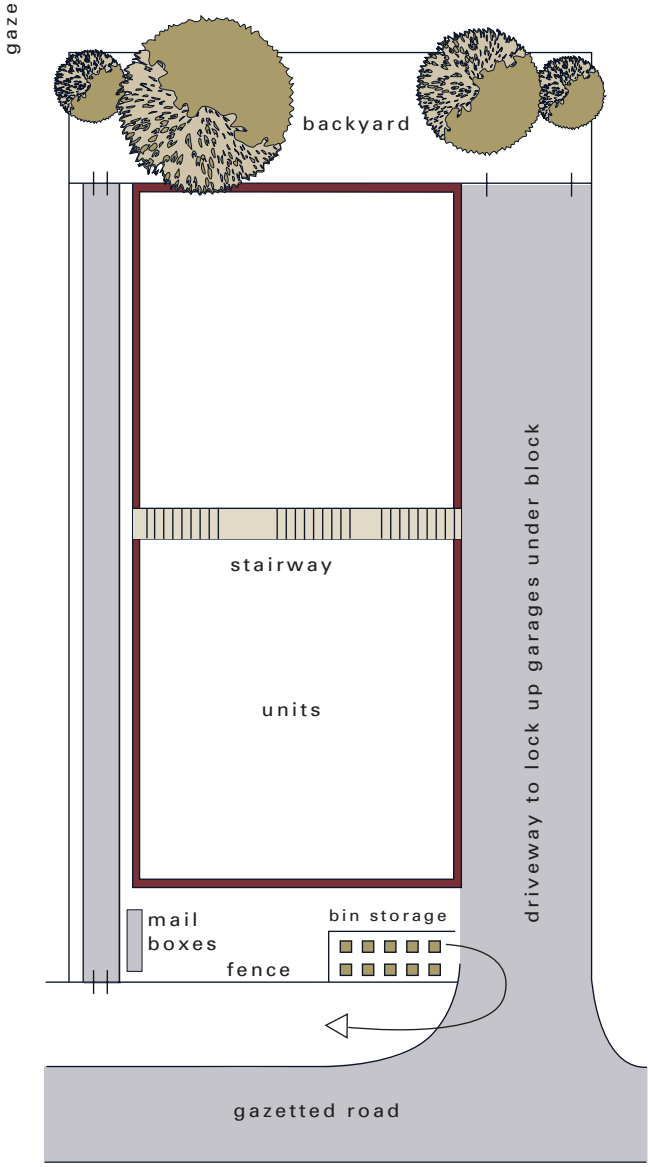
LEGEND

1 face brickwork to match main building
2 lattice upper as visual screen
3 concrete floor graded and drained to Sydney Water connection
4 ramp or path - no steps
5 front brickwork optional - could have completely open front
6 space allocated for MGB
7 roof over bin bay (optional)
8 anti-vandal tap with hose fitting

EXAMPLE DIAGRAMS OF HOLDING BAY STYLES FOR VILLAS, TOWNHOUSES AND LOW-RISE DEVELOPMENTS



Townhouse development with communal bin area within 2 metres of street alignment



Three storey walk up with bin area within 2 metres of street alignment

HIGH-RISE RESIDENTIAL, MIXED RESIDENTIAL/COMMERCIAL BUILDINGS

For buildings which are served by a passenger lift, waste facilities must:

> provide an internal garbage chute leading to a central garbage storage room that has a waste compaction unit attached. The compaction unit shall be set at a 2:1 ratio

> provide each level of the building with at least one point of access to the chute. The access point shall be located in a signposted room, having a floor area not less than 1.5 metres square, appropriate to hold as a minimum 1 x 240L mobile recycling bin for the collection of paper and containers such as glass/plastic bottles, steel/aluminium cans

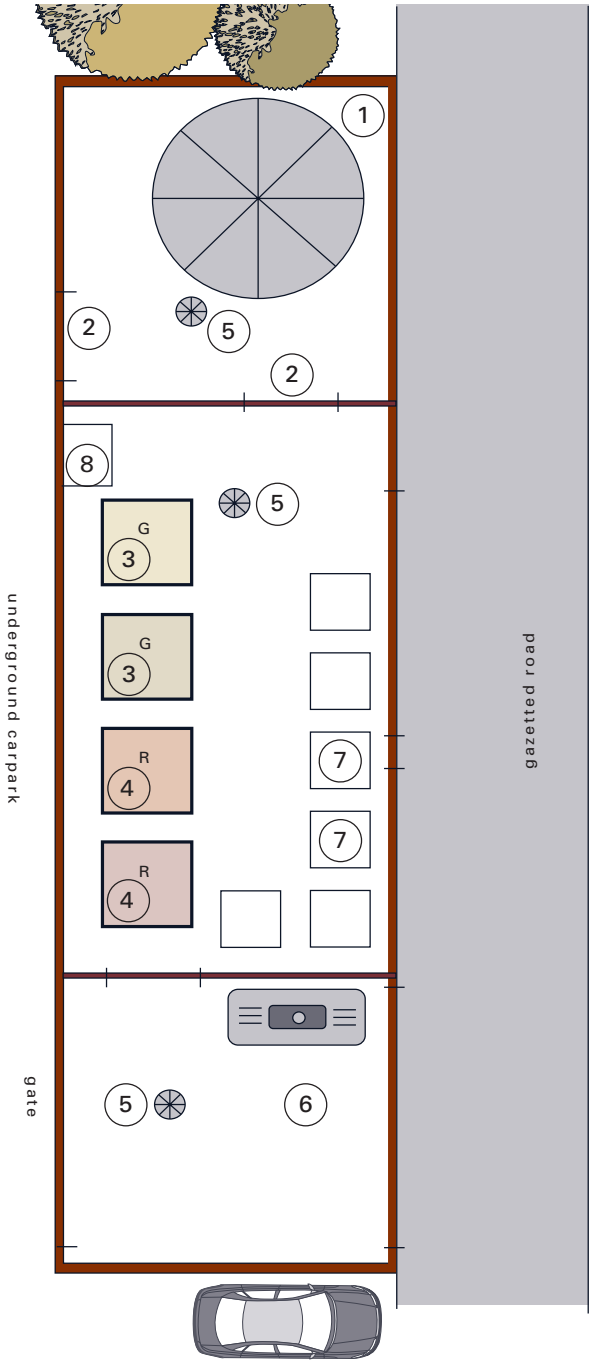
> provide a separate bulky waste storage room for household cleanup material

In mixed residential/commercial buildings, waste facilities must:

> ensure the garbage chute for the commercial area of the building is kept separate from the residential garbage chute or vice versa

> provide ventilation, fire control and other services to the garbage chute room in accordance with the Building Code of Australia (BCA)

> provide a commercial garbage storage facility, separate from the residential section of sufficient size to accommodate all waste generated from the commercial section. If a commercial section garbage facility is located within the building that is more than 2 metres from the street alignment, then a temporary holding bay must be provided that is located within 2 metres of the street alignment.



Otherwise, waste handling facilities shall be provided in accordance with those required for villas, townhouses and low-rise developments.

LEGEND

1 carousel compactor at base of garbage chute
2 access for caretaker only
3 MGBs for garbage
4 MGBs for recycling
5 drainage to sewer
6 caged area for discarded bulky items
7 doors for council access 2 metres from street alignment
8 tap

GARBAGE AND RECYCLING CONTAINER REQUIREMENT

The following table is a guide only for the minimum number of garbage and recycling containers provided for waste storage and recycling in buildings such as villas townhouses, home units and low-rise developments.

The number of containers required for residential, mixed residential/commercial development buildings which have an internal garbage chute will need to be decided using 2:1 compaction ration as stated on page 6.

Table 1

Number of units	Minimum number of garbage receptacles to be stored	Minimum number of recycling containers to be stored
1-3	1 x 80L bin per unit	1 x 140L comingled mobile recycling bin per unit
4-12	1 x 80L bin per unit or 1 x 240L mobile bin shared between each 3 units	2 x 240L comingled mobile recycling bin
12+	1 x 240L mobile bin per every 3 units 660L bins permitted	As a guide, generally a set of 2 x 240L mobile bins for every 15 units or part thereof 660L bins permitted

Commercial Premises

All commercial premises are to be provided with a garbage/recycling storage area for all waste generated from the premises. The following chart is a minimum guide:

Type of Premises	Sub type of premises	Typical Volume of Waste generated to be stored	
		Waste	Recycling
Child care facilities	All types	20L / child / week	10L / child / week
Office buildings	General office use	10L / 100m^2 GFA / day	10L / 100m^2 GFA / day
Retail Trading	Shops < 100m^2	50L / 100m^2 GFA / day	25L / 100m^2 GFA / day
	Shops > 100m^2	50L / 100m^2 GFA / day	50L / 100m^2 GFA / day
	Supermarkets	660L / 100m^2 GFA / day	130L / 100m^2 GFA / day
	Showrooms	40L / 100m^2 GFA / day	10L / 100m^2 GFA / day
	Greengrocers	240L / 100m^2 GFA / day	410L / 100m^2 GFA / day

Type of Premises	Sub type of premises	Typical Volume of Waste generated to be stored	
		Waste	Recycling
	Florist / plant shop	900L / 100m^2 GFA / day (combined)	
	Butcher / Delicatessen	80L / 100m^2 GFA / day	Variable, but average 50L / 100m^2 GFA / day
	Bakery	295L / 100m^2 GFA / day	165L / 100m^2 GFA / day
	Fish	50L / 100m^2 GFA / day Waste receptacles shall be refrigerated so as to ensure all wastes are kept at a temperature not exceeding 4°C	Variable
Food and drink premises	Take away food and drink premises	80L / 100m^2 GFA / day	240L / 100m^2 GFA / day
	Restaurants and cafes	10L / 1.5m^2 GFA / day	120L / 100m^2 GFA / day
	Registered clubs Pub Small bar	50L / 100m^2 bar area / day 80L / 100m^2 restaurant GFA / day	50L / 100m^2 bar area / day 50L / 100m^2 dining area / day
Assembly rooms	Social recreational or religious premises	50L / 100m^2 GFA / day	10L / 100m^2 GFA / day
	Entertainment facilities	1L / 4 seats / screening	0.5L / 4 seats / screening
Tourist and visitor accommodation	Backpacker accommodation	40L / occupant space / week	20L / occupant space / week
	Hotel and motel accommodation	5L / bed space / day 50L / 100m^2 bar area / day 10L / 1.5m^2 dining area / day	5L / bed space / day 50L / 100m^2 bar area / day 50L / 100m^2 dining area / day
	Serviced apartments	120L / apartment / week	60L / apartment / week
Industrial	-	Dependant upon industry type	Dependant upon industry type

CONSTRUCTION MATERIALS AND FINISH

Walls

Walls of all garbage stores shall be of solid masonry construction, and shall be cement rendered to a height of 1800mm or the height of any wall, whichever is the lesser. Alternatively walls of garbage store may be tiled with glazed tiles fixed in accordance with the requirements of Australian Standard AS 3958, and the top edge of any such tile section shall be treated in such a way as not to form a ledge upon which dust or grease can accumulate. The intersection of the wall to the floor shall be coved.

Walls of temporary holding bays need to be integrated with the development and streetscape and adequately conceal containers from being viewed from public places and the road.

Floors

Floors are to be constructed of materials which are impervious, non slip, non abrasive, resistant to chemicals, capable of withstanding heavy duty operation, coursing of steam, hot water, soap and detergent; and include ceramic tiles of approved size and type properly affixed with impermeable cement render or similar topping over concrete, or approved material.

The floor finish is to be smooth and even with no protrusions that would prevent easy cleaning. It should be graded and drained, with the approval of the Sydney Water, to the sewer.

The intersection of the floor with the walls and any exposed pipes are to be coved.

Service access to waste storage areas must be continuous paving and not contain steps or ramps with a grade steeper than 1 in 8.

Ceilings

Where provided within a fully enclosed garbage store room, the ceiling is to be constructed of a rigid smooth faced non absorbent material which may include plaster board, fibrous cement, cement render, smooth finish off form concrete or other approved material with washable, gloss paint of a light colour.

The intersection of walls and ceilings are to be tight joined, sealed and dust proof. Drop in panel ceilings are not permitted.

Doors and Gates

Waste storage rooms and garbage bays shall be provided with close fitting doors or gates so as to prevent the entry of trespassers, vermin or other animals into the area. The waste storage area must not be located behind lockable security grilles/roller garage doors/gates etc, unless an additional lockable door is located next to the grill/garage roller door etc, so that waste collectors can access the waste storage area other than through any security/roller systems. Doors/gates to waste storage rooms must provide a minimum clearance of 900mm.

The waste storage room should allow sufficient area and door openings for manoeuvring of containers.

Window Openings

Window openings shall be sufficiently protected so as to prevent the entry of animals or other vermin into the store.

Storage Racks

Where required racks may be provided for the storage of garbage bins and recyclable materials. They may be fixed or free standing, with the lower shelf 300mm above floor level. Racks are to be constructed in galvanised piping, solid flat iron, or solid flat steel, compressed fibre cement or other approved material that are capable of easy cleaning.

VENTILATION

Fully enclosed waste facilities must be ventilated by natural or artificial means complying with AS 1668.

WATER SUPPLY

Facilities must be provided to allow for the wash down of the garbage store areas and also for the disinfection of containers on site. Wash down water from either the floor or containers must be disposed of in the sewer.

It is an offence to discharge wash down water to the stormwater drainage system.

Residential Premises

A cold water hose cock must be located within the waste facility or nearby.

Commercial Premises

Hot and cold water hose cocks must be located within the waste facility or nearby.

GREASE ARRESTERS

The installation of grease arresters within waste facilities is permitted, provided that the area dedicated to access hatchways is additional to the floor area requirement for the garbage bays and store rooms.

IDENTIFICATION

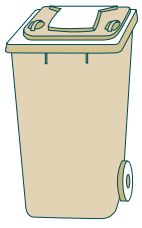
The storage area or holding bay must be adequately signposted, with a description of storage facilities within the area.

LIGHTING

Lighting in the waste facility room should be in accordance with AS 1680.

Mobile Garbage Bins (MGBs)

Bin Type	80L MGB	120L MGB	240L MGB
Height	935mm	960mm	1080mm
Depth	510mm	555mm	735mm
Width	445mm	485mm	580mm



Mobile Garbage Bin

Chutes

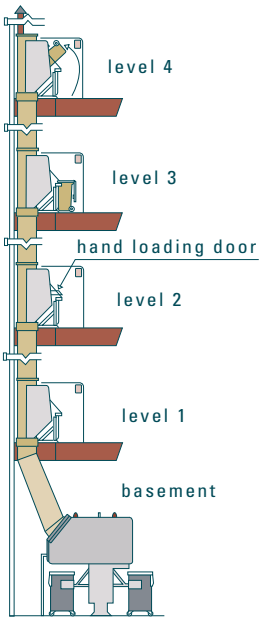
Chutes are only suitable for transfer of garbage, and are unsuitable for the transfer of recyclables. Firstly, the drop generally results in the damage, or even destruction, of the recyclable material - particularly glass. Secondly, cardboard can become stuck in the chute and cause a fire hazard. Other recyclables, such as paper and plastics are also highly flammable. Having large quantities of recyclables stored at the bottom of a long shaft could constitute a fire hazard.

Chutes should be designed to reduce noise and fire risks associated with their use. They should be cylindrical in section, with a diameter of 500mm or greater.

A service room (or compartment) must be provided on each floor of the development to allow access to the garbage chute. Chutes must not open onto any habitable or public space. Hopper doors are to be fitted with door closers and have an effective self-sealing system.

Chutes must terminate in a garbage and recycling room and discharge directly into a container or waste compactor to avoid spillage and overflow.

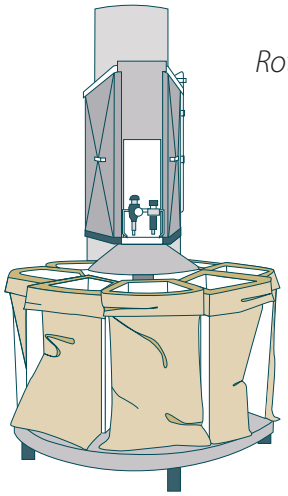
Chutes must be completely enclosed in a fire shaft constructed of approved material and fitted with sprinklers in accordance with the BCA. See manufacturer's instructions for exact specifications.



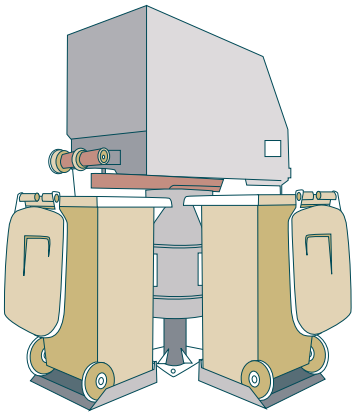
Compactors

Compactors are used to compress the waste into smaller collection containers. The compaction ratio is typically set at 2:1. As a result of the 2:1 compaction ratio, the requirement for storage bins is halved. Higher ratios are not used as they may result in heavier collection containers, endangering workers or damaging bins. Best practice compaction systems compact directly into a 240 litre mobile bin, reducing the need to manually load the compacted waste into the bins.

Compactors require regular maintenance. In particular, systems fed from a chute can be prone to blockages or failure of the "electronic eye", which can result in overflowing or backing up of the chute.



Rotational bag carousel with compactor



Rotational MGB carousel with compactor

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