

Guidelines to prepare Waste Management Plans for Multi-Unit Developments



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# Purpose

This guideline has been prepared to assist developers and planning permit applicants in preparing Waste Management Plans (WMPs) for Multi-Unit Developments (MUDs) within the City of Ballarat.

This document must be reviewed alongside the State Planning Policy Framework, planning overlays and relevant local planning policies which provide policies and requirements for the use, development and protection of land. The relevant documentation to date includes:

- Ballarat Planning Scheme: <u>https://planning-</u> schemes.app.planning.vic.gov.au/static/1705253901865/pdf/2713894.pdf
- Infrastructure Design Manual IDM\_Version\_5.4\_.pdf
- Noise Control Guidelines EPA Victoria Noise Control Guidelines 2021.

These guidelines and the contents therein do not supersede State and Local Planning control requirements.

This guideline entails the requirements for both residential and commercial developments. Mixed use development projects will need to provide a Waste Management Plan addressing both residential and commercial components.

# **Scope of the Guidelines**

This guideline contains the following information which should be reviewed in detail prior to submission of your Waste Management Plan:

- When a WMP is required
- What to Include in a Waste Management Plan
- Guidelines for Residential Developments
- Guidelines for Commercial Developments
- Guidelines for Mixed Use Developments
- Scaled Waste Management Drawings for all Developments
- Appendix 1 Glossary
- Appendix 2 Waste Management Plan Checklist
- Appendix 3 Waste Management Plan Template (for smaller developments)



# When a WMP is required

Planning applications for multi-unit developments are required to use this guide and submit a WMP for assessment if they are within any of the following categories:

- Three (3) or more dwellings in a joined or detached, single or multi-storey layout,
- If the City of Ballarat's standard kerbside service cannot be provided,
- The residential MUD occurs on the same title as a commercial or industrial use (Note: The City of Ballarat does not provide on-site collection services to commercial or industrial properties),

Require waste aggregation and/or collection from within a basement or communal services area that cannot be accessed by Council's waste collection vehicle (refer to Table 6 on page 14 for vehicle dimensions) This requires private waste collection to be organised as the City of Ballarat do not currently have smaller vehicles in their vehicle fleet,

• All commercial development projects including but not limited to: commercial tenancies, large mixed-use development projects; university campuses; boarding schools; aged care centres/retirement villages; caravan parks etc.

# **Exempt Developments**

The requirement to submit a WMP does <u>not</u> apply to residential developments containing two (2) or less dwellings if the City of Ballarat's standard kerbside service can be provided.

However, the following information would still be required to be submitted with the planning application:

• A site plan (drawn to scale) indicating waste bin storage areas within the private open space or a dedicated area with safe access to the kerb for bin transfer, for each dwelling; and

Dedicated kerbside bin collection points for each dwelling with sufficient space provisions (refer to "Collection Location and Requirements" section in the Guidelines for Residential Developments)

Smaller scaled developments which fall under any of the three categories below may utilise the Waste Management Plan Template provided in Appendix 3:

- Residential developments containing up to 15 dwellings; or
- Commercial developments that can be serviced by Ballarat City Council based on Council's waste collection service entitlements for commercial developments, as specified in Table 7 on page 17; or
- Mixed use developments containing a total of the above number of residential dwellings and commercial development size.

All other developments would need to provide a detailed Waste Management Plan that is prepared in accordance with these Guidelines.

# **Pre-Application Meetings / Discussions**

Developments of which any of the following items apply must have their waste management requirements discussed with Council at a project-wide pre-application meeting or as a discussion prior to lodgement of a Planning Application:

- Mixed-use residential and commercial developments,
- Insufficient frontage for kerbside collection,
- Rear access collection location,



- Development of 3 or more residential dwellings,
- Access via private roads by Council waste collection vehicle.

Pre-application meetings should be booked with the City of Ballarat planning department. The City of Ballarat's contact number is 5320 5500.

# What to Include in a Waste Management Plan

A WMP requires the following information to be clearly described. It is a requirement of the City of Ballarat to provide this information within your WMP:

- Land use type, including:
  - Land use zoning
  - Number of floors and basements
  - Number of residential dwellings
  - Commercial floor areas and type of commercial uses
- Estimated waste generation volumes including calculations,
- Internal waste systems: Discussion on internal waste storage capacity and transfer paths (e.g., in-home receptacles and internal bin provisions),
- Bin quantity, size and colour, storage areas and/or other waste equipment i.e., compactors, shredders, chutes, communal equipment etc.,
- Waste storage area and location (i.e., serviceable, accessibility, ventilation, noise and visual amenity),
- Collection frequency,
- Collection location,
- Signage,
- Collection contractors (Council or private contractor),
- Responsibilities for waste management within the development including the roles of caretakers, residents, building manager and/or body corporate,
- Scaled waste management drawings (e.g., a site plan demonstrating the location and size of bin room, bin presentation and bin collection areas),
- Waste vehicle access (swept path analysis) where onsite collection is required.

Please refer to the "Guidelines for Residential Developments" for the residential development requirements and the "Guidelines for Commercial Developments" for commercial development requirements. Please refer to Guidelines for Mixed Use Developments and both the residential and commercial guidelines for any mixed-use developments.



# **Guidelines for Residential Developments**

# Land Use Details

The Waste Management Plan must include a summary of the proposed land use(s) including the following:

- Land use zoning
- Number of floors and basements
- Number of residential dwellings/units by size (i.e., studio, one, two or more bedrooms etc.)

# Waste Generation & Waste Systems

### City of Ballarat Standard Waste and Recycling Services

Council's standard kerbside waste collection service provisions are shown in Table 1. The bin entitlements noted in Table 1 apply to all individual residential dwellings within the City of Ballarat.

The City of Ballarat currently provides a green waste collection service for residential properties that are between 250m<sup>2</sup> and 4000m<sup>2</sup> in size and are currently located along the green waste collection route. All other residential properties have the option to request this service, which will be assessed by the City of Ballarat.

Council will be introducing a food organics and garden organics (FOGO) collection service in 2025. All residential properties that utilise Council's kerbside general waste (garbage) collection service are required to cater for Council's FOGO collection service. This is with the exception to residential properties larger than 4,000m<sup>2</sup> which would have the option to opt-in for the FOGO collection service.

#### Table 1 Standard Council Waste Collection Entitlement and Bin Details

	Rubbish/ Garbage	Commingled Recycling	Food Organics and Garden Organics (FOGO)	Glass	Hard Waste (Including e- waste)
Bin Sizes or Entitlement	140L or 240L*	240L	140L*	140L (indicative until service is introduced)	Residential properties in Ballarat receive
Collection Frequency	Weekly (fortnightly when FOGO occurs in 2025)	Fortnightly	Fortnightly (current Garden Organic) Weekly (when changed to FOGO in 2025)	Monthly (indicative)	two free tip vouchers each year for removal of hard waste items. For more information, refer <u>here</u> .

\*Properties under 250sqm in size will receive a 140-litre bin with the option to request a 240-litre bin.

It should be noted that Council does not provide a shared bin service and thus Council's bins are not eligible to be shared between multiple dwellings.

#### Requirements for Multi-Unit Residential Dwellings

Waste generation rates listed in Table 2 have been adopted from Sustainability Victoria Better Practice Guide for Waste Management and Recycling in Multi-unit Developments 2019.

These rates can be applied to apartments in residential, multi-unit and mixed-use developments.

The food organics volumes and composition of garbage volumes as noted in Table 2 below have been estimated based on the City of Ballarat's own residential waste audit data.



Glass waste generation rates have been adopted based on available data demonstrating that 30% of residential commingled recycling consists of glass.

MUD's are required to make allowance for a future glass bin collection service, for glass that is not eligible to be deposited into the Container Deposit Scheme (CDS). The City of Ballarat's glass collection service is envisaged to be introduced by 2027 as per the Recycling Victoria circular economy policy published in 2020. Whilst the City of Ballarat currently has 'Pass on Glass' drop-off facilities located across the municipality, the MUD should be designed to allow for on-site separation of glass to future proof the site.

#### Table 2 Residential waste generation weekly rates

Dwelling size	Rubbish/Garbage	Commingled Recycling	Food Organics	Glass	Garden Organics
Studio or 1 bedroom apartment	60L	56L	20L	24L	Required to be considered where landscaped areas in individual apartments are
2-bedroom apartment	75L	70L	25L	30L	present. A rate of 40 litres/week of green waste per 100m <sup>2</sup> of landscaped area may be applied.
3-bedroom apartment	90L	84L	30L	36L	

#### Waste Systems

At a minimum, Council requires management and disposal methods to be provided for the following waste streams, for all MUD residential developments:

- 1. Garbage
- 2. Commingled Recycling
- 3. Food Organics and Garden Organics
- 4. Glass
- 5. Hard waste: A rate of 1m<sup>2</sup> (per maximum of 100 apartments) can be applied to multi-unit developments
- 6. E-waste
- 7. Charity: For developments consisting of more than 50 dwellings

Developers must ensure it is as convenient to dispose of recyclables and FOGO as it is for garbage.

The waste management hierarchy should be considered when proposing waste systems whereby avoidance, reuse and recycling of materials should be prioritised over disposal and other methods (refer to Figure 1).

#### Figure 1 Waste Management Hierarchy





This section requires descriptions of waste systems for each waste stream, which includes but is not limited to the following:

- Source separation systems (i.e., bin stations, internal receptacles for at least two days' worth of waste)
- Details of chute systems and other proposed equipment, where applicable, including:
  - Chute system (a dual chute system should be provided at minimum where chute system is included in the design). Please state the deflection angles of the chute system.
  - o Chute termination points with fencing where required to prevent residential access.
  - In-chute compaction (compaction ratio of 2:1 applied) or other compaction systems being utilised.
  - Bin lifters for safe transfer of waste from smaller bin sizes into larger bins or compactors
  - Bin change over systems (i.e., conveyor belts or carousel) beneath the chute system or within the waste room
- Storage area or equipment for items such as large cardboard, hard waste and charity goods. These items must be taken to the bin room/drop-off point within the development to reduce blockage in chute systems.
- Waste transfer methods from generation to storage/collection area for each waste stream.
- Innovative systems such as composters, worm farms, organic dehydrators, glass crusher etc. are encouraged.

Table 3 provides the minimum waste system requirement for various development types and sizes.

Number of storeys	Minimum waste system requirement	
Less than 4	Accessible bin room at ground or basement level (no more than 50 meters from lift/stairway)	
	or	
	Dual/triple chute system for garbage, recycling and FOGO with access on each level in addition to bin room for storage of other waste streams	
4 or more	Dual/triple chute system for garbage, recycling and FOGO with access on each level in addition to a bin room (accessible via lift) for storage of other waste streams	
Mixed use developments	Dual/triple chute system for garbage, recycling and FOGO with access on each level in addition to bin rooms (accessible via lift) for storage of other waste streams. Residential waste should be stored separately from commercial waste.	

#### Table 3 Minimum Waste System Requirements

#### Chute Systems

As discussed in Table 3 above, a dual or triple chute system is to be provided for developments with 4 or more levels, with openings on each floor to enable waste disposal and recycling. Each chute door, chute opening and/or chute room must be clearly marked with signage so residents are able to distinguish between the garbage, recycling and/or FOGO chute.

The deflection angles of the chute system must be specified where applicable.

Please specify any in-chute compaction systems proposed as well as the adopted compaction ratios with the relevant references where applicable.

Where chutes are feeding directly into compactors, please ensure bins are still provided to accommodate larger items that do not fit in chutes.



#### Conveyor Belts/Carousels

Conveyor belts or carousels may be provided to prevent the need for manual bin transfers beneath the chute systems. This is particularly relevant where bin changeovers are required more than once per day. If provided, please demonstrate the equipment accordingly on the development plans supplied.

#### Composters/Worm Farm

Composters and/or worm farms may be used in areas that generate smaller volumes of FOGO.

Please note that only certain types of food organics can be decomposed in a worm farm and composter (i.e., citrus, meat and dairy should not be disposed into a worm farm and bones cannot be composted).

Please specify the proposed FOGO processing method in the Waste Management Plan.

#### **Compactors**

Larger developments generating a significant quantity of waste per week may consider utilising a compactor. Compactors should be designed to store at least 1 weeks' worth of waste. Compactors must be purchased or leased by the development. All ongoing maintenance and cleaning of the equipment is the responsibility of the development.

A bin lifter must be provided to allow safe transfer of waste from bins into the compactor. The bin lifter must be supplied and maintained by the development. Please also demonstrate the equipment on the development plans.

Council will not undertake collections of compactors hence compactors will need to be collected by a private contractor.

Compactors would require sufficient height clearance (typically 5 metres) for the collection vehicle to operate.

# **Bin Sizes and Colour**

Your Waste Management Plan must include the number, type and size of bins.

An image demonstrating the City of Ballarat's bins is shown in Figure 2 below.

Figure 2 140L Rubbish bin (red lid); 240L Recycling Bin (yellow lid) & 240L Garden Waste bin (green lid).





Bin sizes provided by the City of Ballarat for Council-serviced residential developments are listed in Table 4 below. Bin sizes and bins for waste streams that are not listed in Table 4 would need to be provided by the developer or the engaged contractor.

As discussed above, the City of Ballarat does not provide shared bins and thus the bin sizes noted below are not to be shared between multiple dwellings.

#### Table 4 Ballarat City Council Bin Provisions

Waste stream	Bin Colour	Bin Sizes
Garbage	Red lid and dark green body	140L or 240L* *240L garbage bins are only provided to multi-unit developments
		over 250sqm as an opt-in
Commingled Recycling	Yellow lid and dark green body	240L
		140L** (with option to request 240L)
Food organics garden organics (FOGO)	Lime green lid and dark green body	**Properties under 250sqm in size will receive a 140-litre FOGO bin with the option to request a 240-litre bin.
Glass	Purple lid and dark green body	140L

#### Table 5 Council Standard Bin Sizes and Dimensions

Capacity (L)	Width (mm)	Depth (mm)	Height (mm
140L	485	560	940
240L	580	735	1080

The above bin dimensions are to be used when designing bin rooms for Council serviced developments. Should a private supplier be engaged, bin dimensions should be attained from them as their dimensions may differ.

Mobile garbage bins provided by private contractors must show the contractors' branding and preferably not have a green body. The bins would preferably have a black body as per the AS 4123.7-2008. These requirements would ensure that the commercially serviced bins are clearly distinguishable from the City of Ballarat bins. The lid colour must remain consistent with AS 4123.7-2008.

# **Collection Frequency**

Collection frequencies for Council's standard waste service are listed in Table 1.

Multi-unit developments and apartments serviced by a private contractor can be serviced generally once a week for each waste stream.



# Waste Storage Area

Residential waste must be stored separately to commercial waste with an exception for developments utilising shared compactors.

The following information is required:

- Waste room layout & size (m<sup>2</sup>)
- Wash down area
- Ventilation
- Vermin prevention
- Odour prevention
- Noise reduction

Developers must ensure the following is provided when designing waste storage areas:

- Internal waste areas within each dwelling/apartment are to be furnished with bins that are able to accommodate for at least one days' worth of each waste stream.
- Safe waste transfer paths with consideration to bin transfer and floor gradients.
- Waste area is located within a conveniently accessible location with internal access available for all tenants.
- Waste area is well lit for use after dark.
- Waste area is clear of other services (i.e., electrical meter boards, gas meters etc.) associated with the development to ensure a safe and clear access path is available.
- Sufficient space is provided for each waste stream.
- Sufficient space is provided for safe manoeuvering and rotation of bins/equipment within the bin room.
- Sufficient space and clearances for equipment to operate i.e., compaction and lifting equipment.
- Waste area is screened from the street and/or public viewing and from neighboring properties. The screening should be higher than the height of the recommended waste equipment being stored within the enclosure.
- Waste area is secured and provides protection against vandalism and illegal dumping.
- Spare bins are accommodated where required i.e., where collection areas are located away from the bin storage area in developments with chute systems.
- Bin tugs and towing equipment where ramp grades exceed the maximum grades recommended by Sustainability Victoria which are: 1:14 for transfers of bins up to 360L in size and 1:30 for transfers of bins up to 1,100L in size.

Note: Manual manoeuvering of bins should be avoided for bins greater than 1.5m<sup>3</sup> in capacity, wherever possible. If it cannot be avoided (for example, if bins are stored in a room or enclosure), the bins should not need to be wheeled more than 3 metres from the interim storage point to the collection point.



# **Collection Location and Requirements**

All residential developments serviced by private contractors must provide a swept path analysis demonstrating on-site access by the waste collection vehicle.

All new residential developments that require Council's waste collection services are required to provide a design in accordance with the following guidelines.

#### **On-Street**

All townhouse developments would need to be designed to allow for on-street collections by Council.

Apartments bins can be collected on-street by Council if the requirements below are met and if the required number of Council bins can be accommodated on-site.

If Council collections are proposed to occur within a development, the internal road layout of the development must be designed to allow for Council's waste collection vehicle to enter and exit the development in a forward direction, with sufficient access and turning areas provided. Council's standard waste vehicle dimensions are noted in Table 6.

Council's kerbside collection can only occur if the following are met:

- The road used for collections is designed in accordance with Council's engineering standards which are available in the Infrastructure Design Manual accessible at either of the links below: <u>https://www.designmanual.com.au/assets/files/documents/IDM/IDM\_Version\_5.4\_.pdf</u> <u>https://www.designmanual.com.au/</u>
- Council can access the kerb adjacent to/in front of all properties
- There are no access restrictions which would affect vehicle access and bin lifting operations
- Bins do not obstruct pedestrians, street furniture, bike lanes, driveways, parked cars or other points of access
- Sufficient kerbside space at property frontage (or side frontage for corner blocks) for bin placement (refer to Figure 3 below). Bins are not to be placed in front of neighbouring properties.
- All bins must be stored on-site between collections. It is illegal to store waste and/or recycling bins within the open space other than in instances prescribed by the City of Ballarat (i.e., autumn waste leaves for collection)

The measurements below reflect Ballarat City Council's minimum standards for a satisfactory kerbside waste collection:

- 1 metre between other objects (i.e., street furniture, trees)
- 500mm from one bin to another
- 3.9m operational height clearance for bin tipping.

Bins must be placed in a single line and have no overhead obstructions which would interfere with the operation of side loading collection vehicles. Please refer to Figure 3 below for a virtual representation of the bin placement requirements.

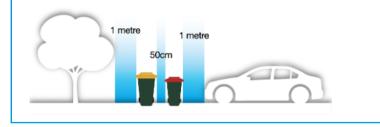


#### Figure 3 Bin Placement Diagram

### How to place your bin on the street

Please have your bins placed correctly by **6am** on collection days. Correct placement:

- bin handle and wheels facing your house and the bin opening facing the road
- bins 50cm apart from each other
- do not place bins behind parked cars, near trees or other obstructions
- · do not overfill or place anything on top of your bins



#### Table 6 City of Ballarat's Waste Vehicle Sizing Chart

Specification	Side Loader (MRV)
Height	3.2 metres Travel Height
Width	2.6 metres
Length	9.40 metres
Weight	23T GVM

#### Common Driveways or Laneways

The following requirements must be taken into consideration for developments within a common driveway and/or a laneway.

Waste collection must occur from one side of the laneway only. There must be sufficient length in the laneway on one side for the placement of bins for each dwelling (allowing clearances as noted in to Figure 3 above) without blocking or hindering access to and from garages.

If the driveway and/or laneway is not currently being serviced by Council, the Waste Management Plan must include a swept path analysis demonstrating access by Council's waste collection vehicle along the proposed collection areas.

Laneway must be provided with appropriate signage stating 'No Parking in laneway on bin collection day'. Adequate turning access from the adjoining road/s to enable the vehicle to enter and exit the laneway satisfactorily.

Private collections must be proposed if the driveway and/or laneway cannot be accessed by Council's waste collection vehicle.

#### **On-Site Collections**

The following requirements apply for on-site collection areas/loading zones:

• Where Council's service is required, the on-site loading zone must be designed in accordance with Council's engineering standards, to accommodate for Council's waste collection vehicle size,



- Where a private collection service is required, the on-site loading zone must be designed to accommodate the required collection vehicle size, based on the equipment types and sizes proposed.
- The collection vehicle should be able to enter and exit the site in a forward direction.
- There should be no steps along the bin transfer path used by the vehicle operator
- Floor gradients should not exceed that noted in the "Waste Storage Area" section above
- Sufficient space at the rear and/or front of the vehicle for bin tipping/compactor loading operations
- A swept path analysis is required to demonstrate on-site access by the waste collection vehicle.

In instances where Council waste collection vehicle is required to access a private road or private area for collection purposes, an Agreement under Section 173 of the Planning and Environment Act will be required. This agreement will detail the following:

- Council and its contractors are provided indemnity from all liabilities/damages
- Compensation to Council and its contractors in the event that damage or injury occurs

The agreement must be submitted to Council prior to commencement of Council's waste collection service.

# **Responsibilities**

A building management, owners' corporation or an individual must be assigned to oversee waste management in multi-unit developments.

The Waste Management Plan should include the following details in relation to the responsible parties:

- List of parties (i.e., residents, building management, owners' corporation) responsible for managing and disposing of waste responsibly within the development.
- Responsibilities of building management and/or owners' corporation in ensuring residents/tenants are educated on waste management methods on-site and informed of waste charges (Council or private).
- Responsibility of the building owner/management to ensure that the Waste Management Plan is included within the Building User Guide.
- List of parties responsible for providing consistent signages on all bins and in communal storage areas.
- List of parties responsible for arranging prompt removal of dumped waste.
- List of parties responsible for ensuring waste areas are well managed and always kept in a safe and accessible manner, including the cleaning of waste areas and washing of bins as required. The use of a caretaker service should be discussed here if being used/recommended in the WMP.
- List of parties responsible for presenting bins to the kerb or collection point.

# Signage

Appropriate signage is required to be provided at drop-off points and within waste storage areas to encourage correct segregation of waste and minimise contamination.

Where applicable:

- Bins should be appropriately labelled with apartment unit numbers and/or business names.
- Signage must include contact details for building management to report any waste-related issues.



# **Collection Contractors**

The Waste Management Plan must nominate whether Council or a private collection contractor will collect each waste stream.

Council prefers to collect all residential waste where it is feasible to do so, hence the use of a private collection contractor should be minimised where possible. The use of a private collection contractor will only be approved where collection by Council is not possible and after discussions with Council.

Private collection vehicles must comply with local laws regarding collection times and restrictions imposed by Council. Kerbside collection cannot unreasonably disrupt traffic flow.

Hours of operation for private waste contractors must comply with the EPA Victoria Noise Control Guidelines 2021.

Collection vehicles must be able to legally and safely perform collections.

The private waste collection service must be at least equal to the level of service provided by Council to all other residents in Ballarat City Council. All associated costs are to be incurred by the occupants. Residents will not be charged Council waste rates if they are being serviced by a private waste contractor.



# **Guidelines for Commercial Developments**

Council currently does not provide collection services for commercial developments unless it can be demonstrated that a standard Council service, as provided to residential dwellings, is sufficient to manage the expected waste volumes at the proposed commercial premises. Refer to Table 7 for waste collection entitlements.

Commercial properties that generate waste volumes greater than the capacities noted in Table 7 would require private waste collections. Depending on the size of the development, the collection of additional waste streams such as cardboard and soft plastics may be required.

The following details are to be included within a commercial Waste Management Plan:

# Land Use Details

Council requires a summary of the proposed land use. This should include:

- Land use zoning;
- Number of floors and basements;
- Number of commercial outlets;
- Types of commercial use; and
- Size of commercial outlets (m<sup>2</sup>).

### **Waste Generation**

A suitably qualified waste engineer or consultant would need to be engaged to calculate the waste volumes and prepare a WMP for commercial developments.

The City of Ballarat would only service commercial businesses that can utilise the same bin sizes and collection frequencies that Council provides to residential dwellings within the municipality. These commercial waste provisions are shown in Table 7 below.

#### Table 7 Ballarat City Council's Waste Collection Entitlement for Commercial Developments

Waste Stream	Garbage	Commingled Recycling	Food Organics
Maximum Bin size and number	1 X 140L or 1 x 240L bin	1 X 240L bin	1 X 140L bin
Collection Frequency	Weekly	Fortnightly	Weekly

Bins must be able to be presented to the kerb for collections. Please refer to "Collection Location and Requirements" section in the Guidelines for Residential Developments for bin placement requirements.

Developments that generate in excess of the above allowance are required to engage a private waste collection contractor. These developments should calculate their waste generation based on commercial waste generation rates provided within the Sustainability Victoria Better Practice Guide for Waste and Recycling in Multi-unit Developments 2019. The adopted commercial waste generation rate should be justified where a rate is not available for the proposed type of use (e.g., where a brewery is the proposed type of commercial use).

### **Waste Systems**

Your Waste Management Plan must include details of the proposed waste management systems.



The minimum waste source separation requirement would depend on the development type. For example, food and beverage premises (including café and restaurant uses) must allow for separation of organic waste while bars/licensed clubs should cater for separation of glass recyclables.

Developers must ensure that it is as easy to dispose of recyclable materials, as it is garbage and that there is adequate provision for the segregation of waste streams without contamination. Where a building is required to provide a lift under the Building Code, access to waste drop off locations must not be via a stairwell.

Consideration should be given to waste management equipment such as the following:

#### **Balers**

Balers are commonly used to manage large volumes of cardboard and soft plastics. These are typically implemented within retail stores, supermarkets and distribution centres.

#### Composters and Worm Farms

Composters and/or worm farms may be used in areas that generate smaller volumes of organic waste.

#### Organic Dehydrators/Digesters

Organic dehydrators and digesters may be used in areas that generate large volumes of organic waste.

#### Compactor

A separate garbage compactor should be considered where the weekly generation volume is estimated to be larger than 25,000L.

#### **Additional Waste Stream Requirements**

#### **Clinical Waste**

Clinical waste must be managed by a medical practitioner and collected by a licensed contractor. Adequate provisions must be made for the storage of clinical waste.

#### Hard Waste

Developers must consider the storage and disposal of hard waste. Commercial hard waste is not permitted to be presented and/or stored on the kerb for collection. On-site storage must be provided with adequate access for collection.

Council does not provide hard waste collection for commercial properties or tenants.

Small commercial businesses can deposit their hard waste at the Ballarat Transfer Station. Please refer to Council's website for a list of hard waste materials that are accepted at the transfer station.

All other businesses and commercial developments must arrange for a private hard waste collection service or deposit their hard waste at a local resource recovery facility.

# Bin Quantity, Size and Colour

Council's commercial waste bin entitlements are listed in Table 7 above.

There are a variety of bin sizes and collection frequencies available from commercial contractors if the site does not meet Council's commercial waste provisions.

Mobile garbage bins provided by private contractors must show the contractors' branding and preferably not have a green body. The bins would preferably have a black body as per the AS 4123.7-2008 These



requirements would ensure that the commercially serviced bins are clearly distinguishable from the City of Ballarat bins. The lid colour must remain consistent with AS 4123.7-2008.

Developers should be aware that the bin size would determine the size and type of collection vehicle that would be used to service the site (i.e., front lift vehicle servicing steel bins etc.).

Commercial retailers requiring higher collection frequencies, larger bins and/or steel bins, will need to engage a private supplier.

# **Collection Frequency**

The waste collection frequencies for commercial waste must be assessed and specified in the Waste Management Plan.

Waste collection frequencies are typically determined by the development size and type of waste generated on the site. Consideration for certain waste types such as that from childcare or food and beverage outlets should be made. For example, food waste in commercial developments and general waste from a childcare facility is often collected more than once per week due to odour and amenity implications.

Where private collections are proposed, a maximum of three weekly collections per waste stream is permitted.

# Waste Storage Area

Commercial bin rooms must be designed to the same standard as a residential bin room, as detailed in the "Waste Storage Area" section in the Guidelines for Residential Developments above.

### **Collection Location and Requirements**

All waste bins must be stored on-site between collections. Waste and recycling bins shall not be stored permanently in the public space other than in circumstances permitted by Council.

Developments utilising the Council's collection service can present their bins to the kerb for collections if the requirements specified in the "Collection Location and Requirements" section of the Guidelines for Residential Developments are met. Bins must be returned to the property as soon as possible after collection.

Developments not utilising Council's collection service are not permitted to place bins at the kerbside or road for collections. Collections must occur from within the property boundary or from an internal bin area that opens directly onto the street. Collection contractors must collect, empty and return bins to the bin room.

Collection vehicles must be able to park legally to perform collections. The WMP must specify and demonstrate the propping areas and specify the use of temporary loading zones on Council roads, where proposed. The proposed waste collection vehicle path must consider access to parking zones and/or impacts to local traffic flows.

On-site loading areas must cater for the size of the waste collection vehicle and provide sufficient area for bin loading. It should be noted that private collection contractors use a variety of truck sizes for collections.

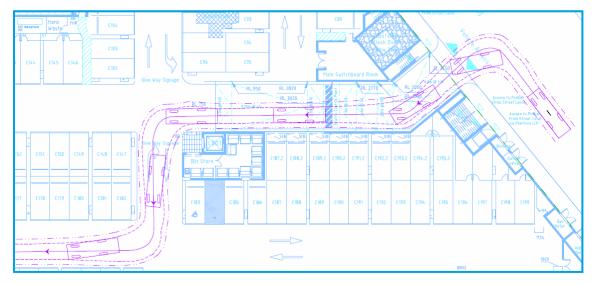
Swept path diagrams illustrating sufficient access to on-site loading areas must be prepared by a qualified and experienced traffic engineer and submitted with the Waste Management Plan.

Please refer to the example swept path diagram provided in Figure 4 below.

All waste collection vehicles must enter and exit the site in a forward direction.



#### Figure 4 Example Swept Path Diagram



# Responsibilities

A building management, owners' corporation or an individual must be assigned to oversee waste management in multi-unit developments.

The Waste Management Plan should include the following details in relation to the responsible parties:

- List of responsible parties (i.e., commercial tenants, building management) responsible for managing and disposing of waste responsibly within the development.
- Responsibility of the building owner/management to ensure that the Waste Management Plan is included within the Building User Guide.
- Responsibilities of building management and/or commercial tenants in ensuring staff members are educated on waste management methods on-site and informed of waste charges (Council or private).
- List of parties responsible for ensuring waste areas are well managed and always kept in a safe and accessible manner. This would include cleaning waste areas and washing bins as required.
- List of parties responsible for providing consistent signages on all bins and in communal storage areas.
- List of parties responsible for arranging prompt removal of dumped waste.
- List of parties responsible for presenting bins to the kerb or collection point.

### Signage

Appropriate signage is required to be provided at drop-off points and within waste storage areas to encourage correct segregation of waste and minimise contamination.

Signage must include contact details for building management to report any waste-related issues.

Where applicable, bins should be appropriately labelled with commercial tenants/business names.

# **Collection Contractor**

The Waste Management Plan must nominate whether Council or a private collection contractor will collect each waste stream.



If a private collection contractor is engaged, operators must provide a level of service that is equivalent to or greater than Council's commercial waste collection service, as specified in Table 7 above.

# **Guidelines for Mixed Use Developments**

Please refer to both the residential and commercial waste management guidelines for any mixed-use developments. Residential and commercial waste must be stored and managed separately.

# Scaled Waste Management Drawings for all Developments

Developers must provide a set of scaled drawings demonstrating the disposal point for all waste streams and the final collection point by the collection contractor.

The drawings must include:

- Typical residential and commercial floor plans showing waste storage points.
- Bin rooms and/or enclosures including any equipment such as chutes, carousels, compactors and bins.
- Ramp grades and any obstacles or potential constraints.
- Waste transfer path diagrams demonstrating access to bin rooms, chutes and drop-off areas.
- Access to hard waste and charity services, including details associated with ongoing management/maintenance.
- Bin presentation location (on-street or on-site) with bin alignment, including details regarding any potential hazards/risks and how they can be managed.
- Details around bin storage area, including sufficient circulation space.
- Swept path diagrams illustrating sufficient access to collection points and details of vehicle traffic within close proximity of the development.



# Appendix 1 Glossary

- Amenity pleasantness or attractiveness of a place.
- Collection Location location at which bins are placed for collection by waste vehicles.
- **Container Deposit Scheme (CDS)** This scheme will provide a 10c return on eligible drink containers such as eligible cans, cartons and/or bottles, which are returned at its collection points.
- **Contamination** materials and items within a recycling or organics bin that are not recycled through Council's recycling service and/or recyclable materials found within the garbage bin.
- Indemnity security or protection against a loss or other financial burden.
- Residential Development a development intended entirely for residential occupation.
- Dwelling a building for use as a place of residence or place of abode
- Townhouse one (or more) storey dwellings at ground level
- Unit/Flat/Apartment a structure containing multiple dwellings over multiple levels.
- Commercial Development- a development intended entirely for commercial purposes.
- **Mixed-Use** a development intended for a mixture of both commercial tenants and residential occupation.
- Waste unwanted or unusable material or by-products:
- Garbage materials that cannot be recovered and reused.
- Commingled Recycling/Recycling materials that can be recovered by recycling facilities.
- **Food organics and garden organics** organic material from food scraps and a typical residential garden.
- **Glass recycling** glass materials that can be recycled in glass recycling facilities and that are not accepted as part of the Container Deposit Scheme.
- **Hard Waste** waste that is either too large to be disposed of through standard bins (such as furniture) or has specific disposal requirements (such as electronics).
- Waste Management Plan (WMP)- a document detailing the waste management operations and requirements of a site (including details such as storage provisions, collection arrangements, appropriate material separation, sustainability initiatives).
- **Qualified/experienced waste engineer –** A waste engineer who has been preparing Waste Management Plans suitable for town planning submissions for at least one year.



# Appendix 2 Waste Management Plan Checklist



Appendix 3 Waste Management Plan Template (for smaller developments)