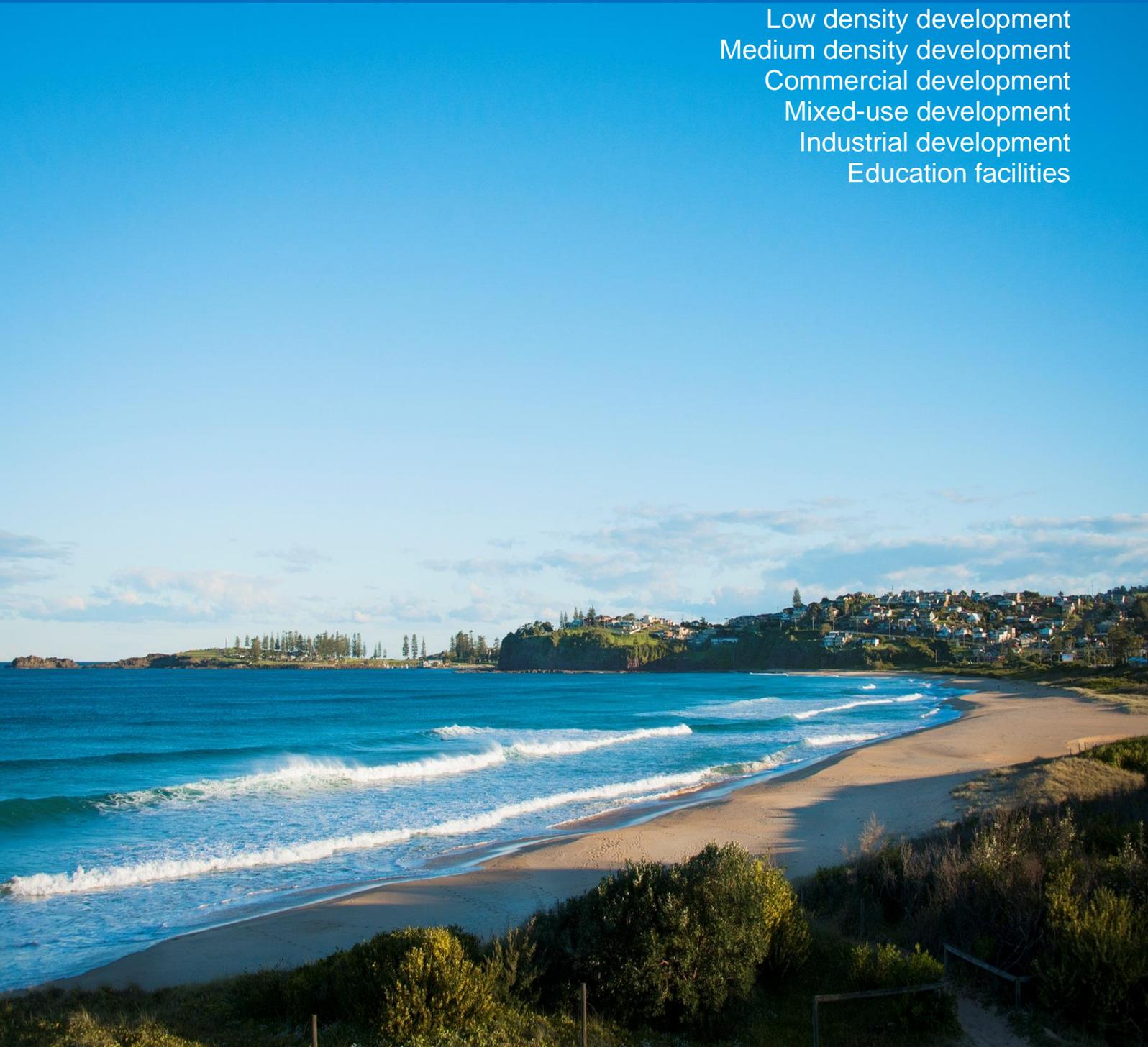


Kiama Waste Management for Proposed Development Guideline

Low density development
Medium density development
Commercial development
Mixed-use development
Industrial development
Education facilities



RESPECT



INNOVATION



INTEGRITY



TEAMWORK



EXCELLENCE

Date approved/adopted	17/06/2021
Next review date	17/06/2024
Department	Waste Services
Author	Waste Management Officer
TRIM reference	21/77876
Supporting documents	Waste Collection Services Guideline

Table of contents

1.1	Purpose of the Guideline -----	4
1.2	Aims and objectives-----	4
1.3	Relationship of this Guideline to other plans and legislation -----	4
1.4	Development applications -----	4
2.0	Site waste minimisation and management -----	6
2.1	Demolition -----	6
2.2	Construction -----	8
2.3	Subdivision -----	10
3.0	Council’s waste collection services-----	11
3.1	Onsite waste servicing arrangement for multi-unit developments -----	11
3.2	Use of private waste service providers -----	11
4.0	Low Density Residential Development -----	12
4.1	Outline of dwelling type -----	12
4.2	General Requirements -----	12
4.3	Council’s standard services -----	12
4.4	Waste Management Plans -----	12
4.5	Waste Bins -----	13
4.6	Waste bin storage requirements -----	13
4.7	Waste collection -----	15
4.8	Noise -----	18
4.9	Amenity -----	18
4.10	Submission Requirements -----	18
5.0	Medium Density Residential Development -----	19
5.1	Outline of dwelling type -----	19
5.2	General requirements -----	19

Introduction

1.1 Purpose of the Guideline

The purpose of this Guideline is to assist with incorporating ecologically sustainable development principles through adequate provisions for waste handling, storage and collection in the design of new developments.

The information provided in this guideline will help you prepare your Waste Management Plan for proposed developments. Essential waste management issues and Council's minimum requirements must be incorporated in all proposed developments.

This Guideline contains information relevant to Kiama Municipal Council's Development Control Plan 2020 (KMC DCP 2020) Chapter 3 – Common Requirements.

1.2 Aims and objectives

The aims and objections of this Guideline is to:

- maximise avoidance, reuse, recycling of building/construction materials and industrial/commercial waste, and to minimise disposal of materials
- support resource conservation and foster the principles of ecological sustainable development (ESD)
- encourage selective or complete deconstruction rather than straight demolition of buildings
- facilitate improved project planning, purchasing and management resulting in efficient use of resources, efficient building techniques and waste minimisation
- contribute to state-wide initiatives to achieve the target aims for waste reduction and resource recovery and reuse as specified in the NSW Waste Avoidance and Resource Recovery Strategy 2014-2021.

1.3 Relationship of this Guideline to other plans and legislation

This Guideline has been prepared to meet the objectives of legislation including:

- Environmental Planning and Assessment Act 1979
- Waste Avoidance and Resource Recovery Act 2001
- Protection of the Environment Operations Act 1997.

This Guideline is to be read in conjunction with KMC DCP 2020, Council's Waste Collection Services Guideline and any other relevant Council policy. If there is an inconsistency between the requirements of this Guideline and other parts of the KMC DCP 2020, this Guideline shall prevail.

Note: Where the proposed development involves the need to place a waste storage container (eg. skip bin) in a public place then a separate application needs to be made under Section 68 of the Local Government Act 1993.

1.4 Development applications

Development Applications must include a Waste Management Plan and be prepared in accordance with this Guideline and KMC DCP 2020.

1.4.1 Waste Management Plans

The Waste Management Plan (WMP) is an important piece of information about a proposed development that must be submitted with the DA. This is because Council cannot provide waste services to buildings and developments that do not meet its requirements in terms of access, physical space and layout.

A WMP is required for demolition and building work and for any proposed development that generates household, commercial or industrial wastes, except for single-unit dwellings and minor dwelling alterations.

Developers are required to provide details in the WMP of waste management and minimisation activities that are to be carried out during demolition, construction and operations of a proposed development, and to estimate the likely volumes of waste generated.

The plan requires applicants to:

- (a) specify waste by type and volume, and nominate reuse and recycling potential;
- (b) nominate siting of waste storage facilities for demolition, construction and for on-going use by residents or occupants;
- (c) specify how and where construction wastes will be disposed of; and
- (d) explain arrangements for storage and collection of wastes from the site on an on-going basis.

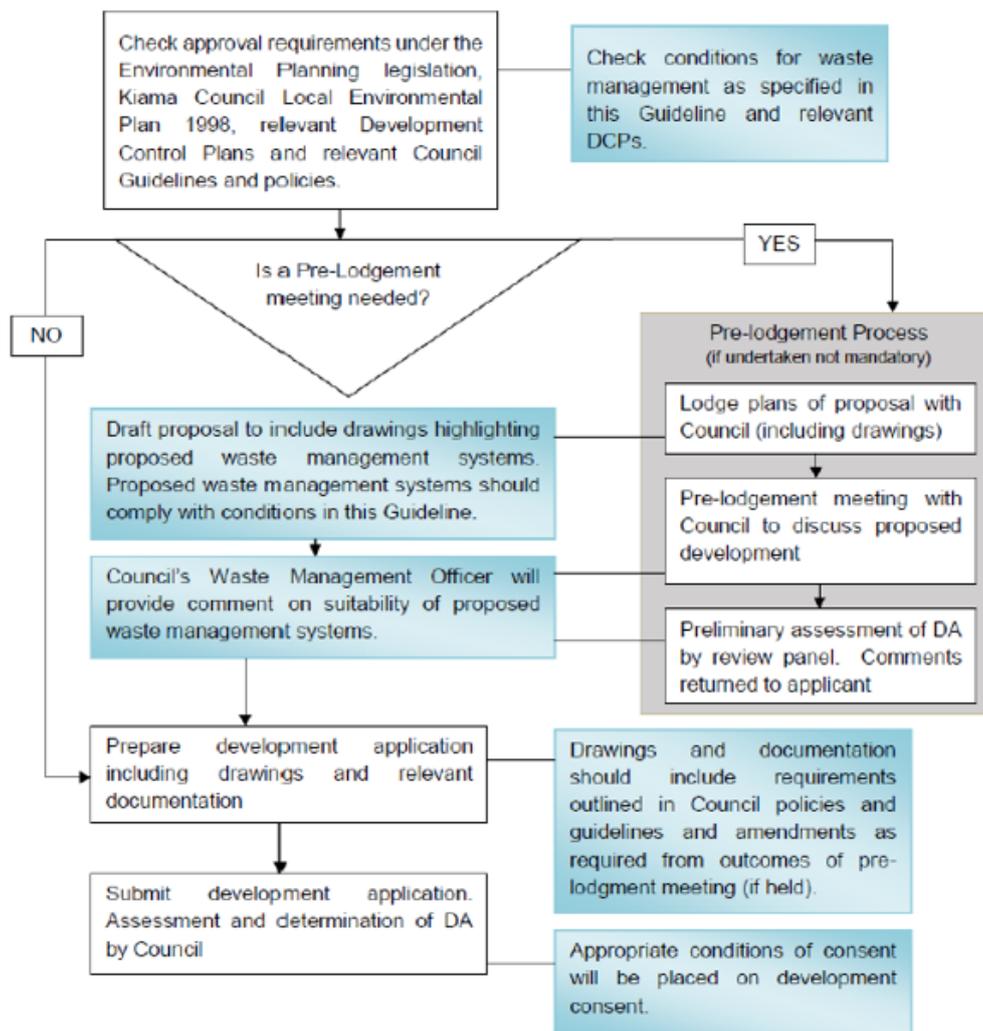
WMP are to be prepared in accordance with this Guideline.

Forms for completing the WMP are provided in Appendix D of this Guideline.

1.4.2 Preparing a Development Application and addressing waste management issues

Figure 1 shows the steps for addressing waste management when preparing a DA.

Figure 1: Flowchart showing DA application process



2.0 Site waste minimisation and management

2.1 Demolition

To comply with the NSW Government's waste reduction target for building and demolition wastes, measures are to be identified and implemented to maximise the reuse and recycling of building and other materials from the demolition process.

2.1.1 Reusing and recycling material

The demolition stage is the greatest potential for waste minimisation. The first thing that developers should consider is whether it is possible to re-use demolition materials for the proposed development as follows:

- considering careful on-site sorting and storage, and by staging work programs it is possible to re-use many materials, either on-site or off-site
- indicating on site plans the storage area for sorted materials awaiting either on site use or recycling off site
- installing clear signs for sorted materials to help communicate the idea of separation of material to all workers on the site.

The following table will assist for possible uses for materials – which will help with your waste management plan.

Table 1: Reuse and recycling potential of materials

Materials on site	Reuse and recycling
Concrete	Crushed, fill, leveling materials, road base
Bricks	Cleaned and/or rendered over for reuse on site or off site, crushed for aggregate and road base
Roof tile	Crushed and used on site for landscaping, or recycled off site into aggregates, road base
Hardwood beams	On site for floor boards or fencing. Consider selling for furniture etc.
Other timber	On site use for formwork, bridging, propping, blocking. Chip for use in landscaping.
Doors, windows, fittings	Second hand building materials
Synthetic and recycling rubber (e.g. under carpets)	Used for safety barriers, speed humps
Overburden	Power screened for topsoil and landscaping

2.1.2 Demolition Vs Deconstruction

There are potential hazardous materials such as asbestos, that are required to be identified prior to demolition and measures implemented in accordance with legislation to ensure the safe removal and disposal of these types of materials.

The NSW Environmental Protection Authority (EPA) have developed a series of fact sheets that compares the benefits and costs of deconstructing buildings against old-fashioned wrecking ball demolition. Due to the rising costs of landfill disposal and the re-sale values of many recovered building materials, house deconstruction can be more cost-effective than demolition across a range of building types.

These fact sheets look in detail at the stages of house deconstruction and offer tips and advice on how to plan and carry out house deconstruction successfully. They show the income generated and costs avoided by deconstructing buildings in comparison with the costs associated with demolition and landfill disposal.

Refer to the EPA's [House Deconstruction Information Booklet](#) for more information.

If the demolition of buildings or other ancillary structures is to occur, a WMP shall be completed and included in any Statement of Environmental Effects. Refer to Appendix D of this Guideline.

The WMP – Demolition must be completed in accordance with:

- Chapter 3 - Common Requirements Section 3 Kiama Development Control Plan 2020 and
- Chapter 3 Overall Controls Section 1 Demolition Requirements of the Kiama Development Control Plan 2020.

Within fourteen (14) days of the completion of all demolition work, the applicant must provide Council with documented evidence (disposal receipts) of materials disposed or recycled of at lawful facilities.

2.1.3 Submission of a WMP requirements

i. A WMP must be submitted with any DA proposing demolition works. The WMP must include the following information:

- (a) Estimated volumes of waste materials generated (in cubic metres). Refer to the rates in Appendix A of this Guideline;
- (b) Whether hazardous waste or special waste (including asbestos) will be generated during the demolition phase;
- (c) How each waste type will be recycled on and/or off site, or sent to landfill; and
- (d) If waste is to be reused or recycled on-site it must be specified how the material will be reused or recycled, for each waste type.

ii. A site plan, or similar, which indicates:

- (a) Location of sorting area/s where waste will be sorted for disposal or recycling
- (b) Location of storage area/s where waste and soil stockpiles will be stored onsite

Note: This is to include colour coding of waste containers or the provision of detailed signage.

- (c) Collection area which is clear of any obstructions.

Note: Generation, storage, treatment and disposal of hazardous waste and special waste (including asbestos) must be undertaken in accordance with relevant legislation administered by the Appropriate Regulatory Authority (ARA); and the Work Health and Safety Act 2011 administered by Safe Work NSW.

Note: Stockpiles of excavated material should be constructed and managed in accordance with the Department of Environment & Climate Change NSW: Managing Urban Stormwater; Soils and Construction 2008 ("The Blue Book").

2.2 Construction

During the construction stage of the development, actions should be identified and implemented to minimise waste and maximise re-use and recycling of construction waste and other recyclable materials that are generated by onsite workers or contractors.

The proposed actions are to be included in a WMP – Construction that forms part of the Statement of Environmental Effects for the proposed development. The WMP should also detail how compliance with the controls as identified in Section 3, Chapter 3 KMC DCP 2020, will be achieved.

If any part of the development site is proposed to be filled with excavated material from the construction site, details of the quantity, type, location, depth and any method of retaining the fill should be included on a Site Plan.

A site contour plan identifying the existing contour levels and finished levels of the filled area is also to be provided. This information is to be submitted at the development application stage.

2.2.1 Waste management from demolition and construction sites

It is very important that demolition and excavation companies, builders, contractors, project managers and property developers:

- (a) transport waste to a lawful place
- (b) don't risk hefty fines or prosecution
- (c) avoid expensive clean-up costs

What is waste?

Waste is not just rubbish and unwanted material, but also includes:

- transport waste to a lawful place
- don't risk hefty fines or prosecution
- avoid expensive clean up costs

Transport waste to a lawful place

Section 143 of the *Protection of the Environment Operations Act 1997* requires waste to be transported to a place that can lawfully accept it.

The owner of the waste and the transporter are each guilty of an offence when waste is transported to a place that cannot lawfully be used as a waste facility.

Did you know that both the owner of the waste and the transporter are legally responsible for proving the waste was transported to a lawful place?

Relying on advice from others, such as consultants, contractors or managers of waste facilities, is no defence for transporting waste to a place that cannot lawfully be used as a waste facility.

The owner of the waste and the transporter can be ordered to clean up and pay for such waste to be taken to a lawful place.

Owners of waste can protect themselves from fines and hefty penalties if they can show they did not transport the waste and can prove that:

- (a) the offence was due to causes over which they had no control, and
- (b) they took reasonable precautions and exercised due diligence to prevent commission of the offence.

If a quote for managing waste is low, find out why. The company may be avoiding costs by transporting the waste to a place that cannot lawfully be used as a waste facility.

If waste is illegally dumped and harms the environment, the maximum penalty is \$5 million or 7 year's jail.

Avoiding fines and penalties

Know what types of waste will be generated during excavation, demolition and construction.

Check the council development consent and environment protection licence for the waste facility to make sure they can lawfully accept the waste. Provide the waste facility with details of the waste (classification, origin and quantity).

Prepare and implement a waste management plan that includes:

- (a) details of, and the waste management action proposed for, each type of waste
- (b) procedures that ensure the waste is transported to a lawful place
- (c) a description of the roles and responsibilities of everyone who manages the waste, including the site supervisor and sub-contractors.

The level of detail in the waste management plan should reflect the size and complexity of the project's waste issues.

Regularly update the waste management plan to record how waste is managed and audit where waste is taken.

Provide adequate supervision to ensure waste management plans are implemented and complied with, and regularly audit everyone who manages waste on your behalf.

Provide training about the waste management plan and protecting the environment.

Keep accurate written records such as:

- (a) who transported the waste (company name, ABN, vehicle registration and driver details, date and time of transport, description of waste)
- (b) copies of waste dockets/receipts for the waste facility (date and time of delivery, name and address of the facility, its ABN, contact person).

Supplying information about waste

At any time, you can be asked to supply information about waste, such as:

- (a) its type, classification, characteristics, composition or quantity
- (b) its storage, transport, handling, transfer, disposal, processing, recycling, recovery, reuse or use
- (c) the hazards or potential harm to the environment or human health associated with waste or activities relating to waste.

When supplying information about waste, ensure all relevant information is disclosed, such as:

- (a) waste assessment and classification reports, including sampling methodologies and laboratory analysis for potentially harmful materials
- (b) written procedures and plans for managing waste, including handling and storage procedures, and incident response plans
- (c) development applications, including waste management plans
- (d) site assessments including contaminated site assessments, and environmental and geotechnical studies.

The maximum penalty for supplying false or misleading information about waste is \$250,000.

2.2.2 Submission of a WMP requirements

- i. **A WMP must be submitted with any DA proposing demolition works.** The WMP must include the following information:
 - (a) Estimated volumes of waste materials generated (in cubic metres). Refer to the rates in Appendix A of this Guideline
 - (b) Whether hazardous waste or special waste (including asbestos) will be generated during the demolition phase;
 - (c) How each waste type will be recycled on and/or off site, or sent to landfill; and
 - (d) If waste is to be reused or recycled on-site it must be specified how the material will be reused or recycled, for each waste type.

- ii. **Provide a site plan, or similar, which identifies:**
 - (a) Location of sorting area/s where waste will be sorted for disposal or recycling
 - (b) Location of storage area/s where waste and soil stockpiles will be stored onsite

Note: This is to include colour coding of waste containers or the provision of detailed signage.

Note: This is to include colour coding of waste containers or the provision of detailed signage.
 - (c) Collection area which is clear of any obstructions.

Note: Where an application includes the construction of temporary roads, temporary turning heads, half roads, laneways and/or roads, a swept path analysis prepared by a suitably qualified professional must be provided in accordance with AS2890.2. The swept path analysis must demonstrate a HRV safely accessing the site and the manoeuvring of vehicles for the provision of waste collection services.

Note: Stockpiles of excavated material should be constructed and managed in accordance with the Department of Environment and Climate Change NSW: Managing Urban Stormwater; Soils and Construction 2008 (“The Blue Book”).

2.3 Subdivision

In the design process for a subdivision, the materials located onsite that have the potential to be reused on or off site or recycled, should be identified and proposed actions to recover these materials should be documented.

The subdivision road design plans (whether public or a private road is proposed) must take into consideration Council’s access and design requirements for waste collection vehicles, and the location of roadside waste bin collection points. Where a one-way is proposed then all roadside waste bin collection points must be located on the left hand side of the road.

Reference is made to Chapter 5 – Subdivision, Consolidation and Boundary Adjustment of the KMC DCP 2020 for more information on the suitable provisions for kerbside waste collection.

The above information is to be included in a WMP - Subdivision that forms part of the Statement of Environmental Effects for the proposed subdivision.

The WMP – Subdivision plan should also detail how compliance with the controls as identified in Section 3, Chapter 3 – Common Requirements of the KMC DCP 2020, will be achieved. Refer to Appendix D of this Guideline.

2.3.1 Submission of a WMP requirements

i. Landscape plans showing:

- (a) Indicative bin collection area with relevant lot number;
- (b) Street tree placement; and
- (c) Concrete bin pads (where applicable).

ii. Swept path analysis prepared by a suitably qualified professional in accordance with AS2890.2 must be provided. The swept path analysis will illustrate that a heavy rigid vehicle and Council's waste collection vehicle as per AS2890.2 in Appendix C of Council's Waste Collection Services Guideline:

- (a) Access each property in a forward direction;
- (b) Manoeuvre throughout the subdivision, ensuring all turns can be made legally and safely;
- (c) Perform collections in a safe manner, allowing for lift arm movement/rotation and
- (d) Perform any turning movements in the vicinity of a turning bay or turning head. Trucks will not use private driveways or carparks as a turning area.

Note: If waste collection occurs from private roads a Waste Deed of Agreement must be entered into with Council prior to the issuing of the Occupation Certificate (OC).

3.0 Council's waste collection services

To assist with your waste management plan and designing your proposed development please refer to Council's Waste Collection Services Guideline for information including;

- Waste bin requirements for all development types
- Shared bin arrangements
- Councils waste service collection frequency
- Appendix – Bin dimensions, collection vehicle dimensions, turning circles, swept paths.

3.1 Onsite waste servicing arrangement for multi-unit developments

If an on-site waste service arrangement is to be considered, the developer would need to seek approval from Council and then enter into a Waste Deed of Agreement indemnifying Council against any damage to person or property whilst undertaking on-site waste servicing. Each unit within the development would incur the on-site waste service fee per week. This fee would be charged to the Strata Plan.

3.2 Use of private waste service providers

The waste management systems and the location of the collection point should always be designed so that Council can provide the standard domestic waste management service for the life of the building. Where it has been determined that the standard domestic waste management service or an on-site waste servicing arrangement cannot be undertaken, then a private waste service provider may need to be engaged.

If a private waste service provider is to be engaged a waste management plan will need to be submitted with the DA and the following provisions are to be met:

- (a) a statement from a waste service provider is submitted stating the proposed system is able to be serviced by a private waste service provider, and
- (b) the waste management plan states the reason why a private waste service provider is required for the building and information supporting this decision.
- (c) design plans of the waste storage area/waste bin room/waste bin enclosure must be provided demonstrating that it complies with required specifications. Refer to Section 3 Chapter 3 – Common Requirements of the KMC DCP 2020. This is because if, for any reason, the use of a private waste service provider stops, Council may be called on to carry out the waste collection. If this happens, Council will be required to service the bins using its own collection vehicles and put in place requirements to the Strata Plan such as a Waste Deed of Agreement and purchase of bins.

If a private waste service provider is used, Council is still required to levy an annual charge for domestic waste services to each residential premise. This fee will have to be paid to Council by the owner of each dwelling, even if the waste service is not provided by Council. This will be in addition to the waste service fee charged by the private waste service provider.

Where a private waste service provider is the best option, an agreement should be put in place between the strata manager or body corporate, and Council requires the private waste service provider to supply quarterly, or by some other regular interval, waste data reports. This data will help Council monitor the performance of the waste systems, assess contamination rates, and provide any necessary education materials to the residents of the building.

4.0 Low Density Residential Development

4.1 Outline of dwelling type

This section applies to low density residential developments of 1 to 2 dwellings only, including;

- single dwellings
- dual occupancy developments
- secondary dwellings
- semi-detached dwellings.

4.2 General Requirements

All developments are to include the necessary provisions to enable Council to provide effective and efficient waste collection services to the development. Waste management provisions shall be constructed, arranged and equipped to meet the requirements of this Guideline and Council's Waste Collection Services Guideline.

4.3 Council's standard services

In accordance with Section 496 of the Local Government Act, 1993 Council levies an annual charge for the provision of domestic waste management services to those properties, which fall within the urban areas of the Kiama Municipality and are categorised by legislation as residential for rating purposes.

Under these provisions, the collection services can only be provided by Council's waste contractor. The standard waste collection service for low density developments are described in Table 5, Section 3.3 of Council's Waste Collection Services Guideline.

4.4 Waste Management Plans

A WMP must be completed and submitted to Council with the development application. The WMP is used to inform Council of the waste management arrangements incorporated into a proposed

development. Waste management arrangements incorporated into proposed developments must be in accordance with this Guideline.

The WMP form is provided on Councils website. Appendix D of this Guideline provides an example of a completed WMP forms.

4.4.1 Waste Management Design Considerations

Waste management systems must be convenient and simple to use. Effective systems encourage proper use, reduce illegal dumping, maintain cleanliness and amenity of the building and its surrounds and reduce contamination. Contamination occurs when the incorrect items are placed in the wrong bin. High levels of contamination in recycling or organic bins are likely to result in materials being rejected at the recycling and/or organics processing facility and ending up in landfill.

Methods to encourage resource recovery and minimise contamination include:

- (a) locating recycling and food/garden waste bins adjacent to waste bins
- (b) providing adequate storage space within each dwelling for sorting materials ready for disposal into the correct bin
- (c) providing separate bins for each dwelling, marked with the dwelling number to encourage ownership of bins
- (d) having enough space to allow flexibility in services including space for additional recycling options.

Each of these methods are further detailed in Council's Waste Collection Services Guideline. There is also a variety of education resources to support improved waste management and resource recovery available through the EPA or Council. Ongoing education is one of the most important factors in encouraging residents to correctly use waste management systems.

4.5 Waste Bins

All garbage, recycling and food/garden waste generated by a development are to be stored in the appropriate waste bins as determined by Council. For multi-unit dwellings, upon Council approval, 360L recycling bins for recycling may be more appropriate for use in some developments. Examples of bins are provided Appendix B in Council's Waste Collection Services Guideline.

It is the responsibility of the property owner/property developer to submit a waste service application which includes the purchasing of the bins, through Council prior to tenancy. Application must include a copy of the OC.

4.6 Waste bin storage requirements

4.6.1 Waste storage area and location

All developments shall be provided with a waste storage area for the storage of garbage, recycling and food/garden waste in appropriate bins.

The waste storage facility shall be located entirely within each property boundary.

Waste storage areas shall be located in positions that will:

- (a) permit easy, direct and convenient access for the users of the dwelling
- (b) permit easy transfer of bins to the kerbside.

The waste bin storage area is to be located in a suitable location to avoid vandalism, nuisance and visual clutter.

The waste bin storage area should not be located between the front alignment of the building and the road.

Consideration must be given to the following:

- sufficient space must be provided in all developments for all equipment to handle, store and transfer to the collection point the waste likely to be generated on each premises
- the space allocated must be sufficient to store, in separate bins, the volume of garbage, recycling and food/garden waste likely to be generated at the development during the period between collections.

Council supports composting, and Council's Domestic Waste Service includes the collection of source separated food and garden organics which is collected weekly. If a composting setup is to be established within a development, composting areas should be located in consideration of:

- (a) the positioning of dwellings (onsite and in adjoining properties)
- (b) potential for odour generation
- (c) the location of the site drainage.

The storage of garbage, recycling and food/garden waste bins shall be in a dedicated waste bin storage area.

Where possible, waste bin storage areas should be located at the rear of yards or specific areas incorporated into garages or carports where appropriately screened.

For single unit dwellings, the amount of storage space required in the waste bin storage area, either within a garage or external, is to be based on the following waste generation rates (the largest bin sizes for each waste stream has been provided):

- 240L garbage bin
- 240L recycling bin
- 240L food/garden waste bin

Refer to Appendix B in Council's Waste Collection Services Guideline for bin dimensions and diagrams.

Council will provide each single unit dwelling with the following waste bins:

- One 80L or 140L or 240L MGB for garbage;
- One 140L* or 240L MGB for recycling; and
- One 80L*, 140L* or 240L MGB for food/garden waste.

* Senior citizens or duplex/villa/townhouse property owners can apply, subject to application and approval, for an 80L or 140L yellow lid recycling bin and/or green lid food/garden waste bin.

It is the responsibility of the property owner to request a new waste service. An initial bin establishment fee is payable upfront, per bin and the applicable Domestic Waste Management Charge is applied to the annual rates, which is dependent upon the size of the red lid garbage bin.

Council's standard collection point for single dwellings, is the kerbside of public roads.

4.6.2 Internal Bins

All kitchens should incorporate dedicated space to hold at least two days collection of garbage, recycling and food waste.

Segregated garbage and recycling bins should feature:

- (a) two compartments for general waste and mixed recycling of equal volume
- (b) ideally designed to fit under a sink unit or located within a cupboard.

Council provides all households with a 7L kitchen caddy for the collection of food waste. A space should be provided either under a sink unit or within a cupboard for the storage of this caddy.

Design plans and specifications for the space to be provided and nominated within the kitchen for the interim storage in bins or containers as supplied for source separated garbage, recyclables and food organics should be provided as part of the Statement of Environmental Effects. Refer to Chapter 3 Common Requirement 3.1 Waste Minimisation and Management 3.1.12 Internal Bins/Containers KMC DCP 2020.

4.7 Waste collection

4.7.1 Roadside collection point

Waste will only be collected from the nominated collection point. Council's standard collection point is the kerbside of public roads. Kerbside collection points must not be located in narrow lanes, near roundabouts or intersections.

Kerbside collections will only happen where there is enough space on the kerb for bins to be lined up without negative impacts on building amenity, pedestrian access or traffic flow.

Kerbside collections should include the following design considerations:

- bins fit in a row with minimum 30cm space between them
- bins are within the site's frontage (not impeding driveway or neighbours' lots)
- bins are a minimum 2m away from trees, bus stops, street furniture and road infrastructure
- bins are a minimum 4.2m away from overhanging tree branches, powerlines and other obstructions

Kerbside collections should not be located adjacent to the following structures and services:

- intersections, roundabouts or traffic-calming devices
- along arterial roads
- narrow lanes which heavy rigid class vehicles cannot access
- obstructions such as trees, overhanging buildings, under eaves and low overhead powerlines
- walls and garage doors
- 'No stopping' signs or parked cars.

Care should be taken when selecting the location of collection points in one-way streets. Bins must be presented for collection on the passenger side of the street to enable a side-lift collection vehicle to safely empty them. Bins placed on the other side of one-way streets cannot be safely collected.

Identifying a suitable collection point is particularly important in developments where:

- a large number of bins are to be collected
- there is limited direct access to the development (for example, a battle-axe block)
- there is limited street frontage
- the development has specialised servicing requirements.

The location of the collection point must be decided in consultation with Council and needs to be identified early in the design process as it can have building design implications. It can also determine the ability of Council to provide the service. Refer to Section 3, Chapter 3 – Common Requirements of the KMC DCP 2020.

Bins must be presented to the kerb the night before the scheduled collection day allowing at least 30cm space between bins and other objects. This needs to be considered when determining sufficient kerbside space.

4.7.2 Access for residents

Residents should only be required to transport the waste bins a reasonable distance to the collection point. When determining a reasonable distance, the following should be considered as a minimum:

- whether the development is for aged persons and persons with restricted mobility
- appropriate gradient of traverse (recommended maximum 1:10)
- the capacity/volume of the bins
- the compaction of waste in the bins.

The path over which bins are to be transferred from the waste bin storage area to the collection point should be free of lips, steps and other obstacles. Bins should not have to be moved through the inside of dwellings to reach the collection point.

Figure 2: Kerbside collection bin arrangement

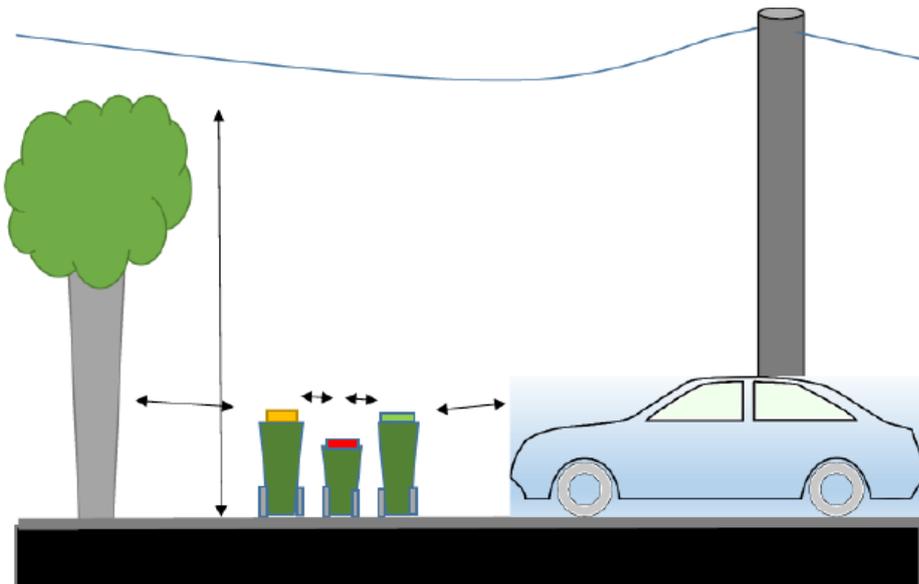


Figure 3: Example layout for single dwelling

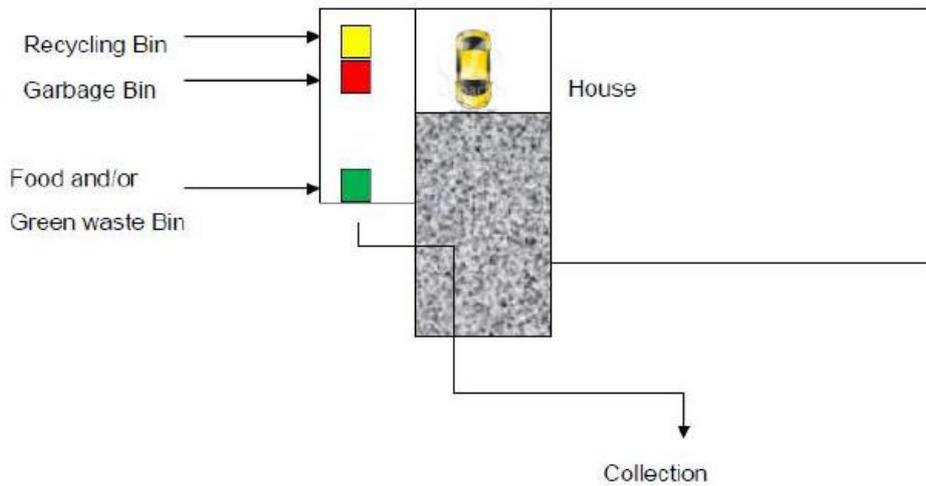
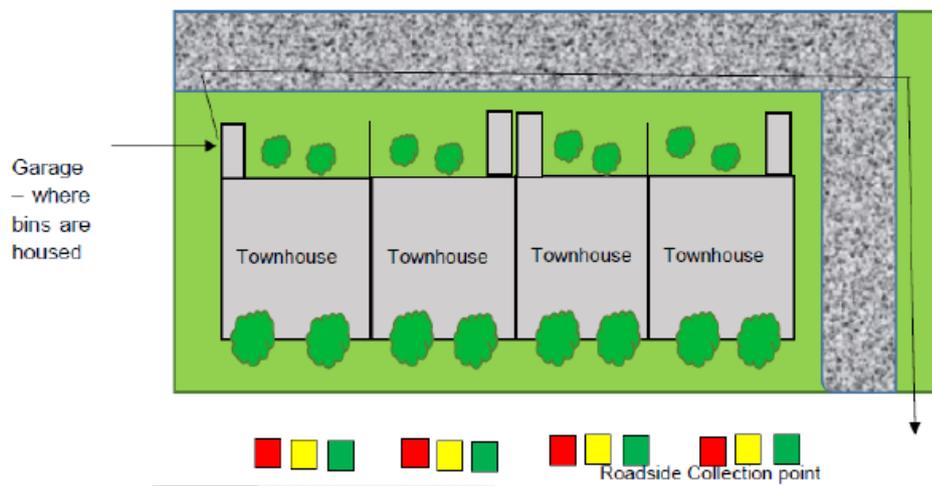


Figure 4: Example layout townhouse, duplex and villa



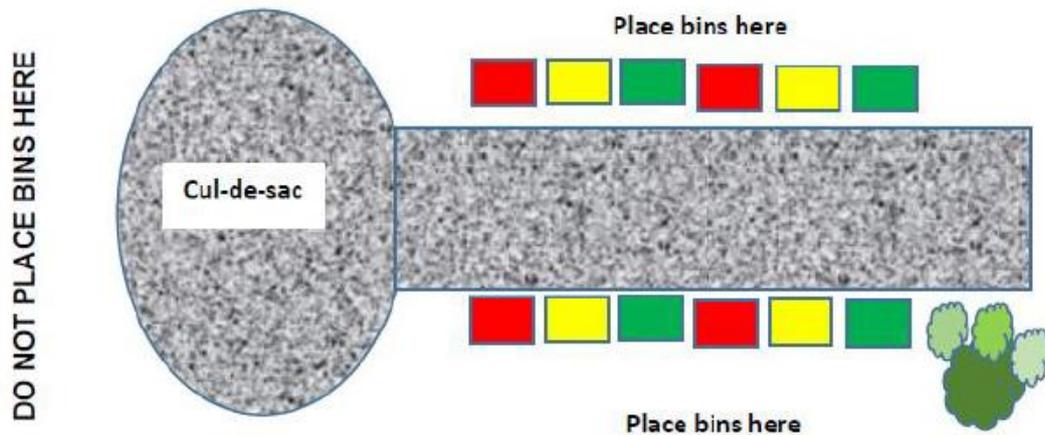
4.7.3 Battle axe or cul-de-sac

Where a residential development is located within a cul-de-sac or accessible via a battle axe driveway, the proposed plans and Statement of Environmental Effects should nominate the location for kerbside collection.

The applicant must demonstrate that:

- There is sufficient space for kerbside collection within the cul-de-sac or street that the battle axe property is located in
- The collection point will not interfere with parked motor vehicles
- Landscaping will not interfere with the ability for waste collection vehicles to service the site.

Figure 5: Example layout for battle axe or cul-de-sac



4.8 Noise

The ground area of the pathway between the waste bin storage and collection area should be of a smooth finish that enables easy movement of bins and minimises noise from bin movements.

4.9 Amenity

The potential for noise, odour and visual impacts from waste bin storage area and collection must be minimised.

All waste bin storage areas must be adequately screened and shall not be readily visible from any public place.

4.10 Submission Requirements

i. Architectural plans showing:

- (a) Waste bin storage area. Each bin should be illustrated on the submitted plan. Appendix B of Council's Waste Collection Services Guideline.
- (b) Waste bin collection area. Each bin should be illustrated on the submitted plan.
- (c) Waste path of travel for moving waste bins between storage area and collection area as applicable.

ii. An Ongoing WMP must be submitted with the DA and must include the following information:

- (a) an estimation of waste generation for garbage, recycling, food/garden waste and any other relevant waste type. Waste generation rates to be used for calculations and example calculations are provided in Appendix A in this Guideline. Estimates should be provided as a volume of waste per week (in litres)
- (b) number of each type of bin (garbage, recycling, food/garden waste and any other relevant type) required by the development
- (c) number of waste collections for each type of waste per week required by the development
- (d) details of waste bin storage areas including dimensions, floor area (m²) and location

- (e) details of dedicated waste collection point including dimensions, floor area (m2) and location

5.0 Medium Density Residential Development

5.1 Outline of dwelling type

This section applies to medium density residential developments including;

- multi dwelling housing development (3 or more dwellings)
- residential flat buildings up to 3 storeys in height (no lift access)
- residential flat buildings of 4 storeys or more (including lift access)
- residential care facilities
- seniors housing.

The types of developments covered in this section may provide for individual or communal bin storage depending on the considerations relating to the development site and its context. Factors determining this choice are contained in Appendix A of this Guideline. Multiple households within the property increase challenges with regards to waste volumes and ease of access and operation of waste sorting and removal systems.

Waste management systems must be convenient and simple to use. Effective systems encourage proper use, reduce illegal dumping, maintain cleanliness and amenity of the building and its surrounds and reduce contamination. Contamination occurs when the incorrect items are placed in the wrong bin. High levels of contamination in recycling or organic bins are likely to result in materials being rejected at the recycling and/or organics processing facility and ending up in landfill.

Methods to encourage resource recovery and minimise contamination include:

- (a) locating recycling and food/garden waste bins adjacent to waste bins
- (b) providing adequate storage space within each dwelling for sorting materials ready for disposal into the correct bin
- (c) providing separate bins for each dwelling, marked with the unit number to encourage ownership of bins
- (d) displaying information signs in common areas clearly identifying garbage, recycling and food/garden waste bins and storage areas
- (e) using standard and consistent signage and colour coding that provides instruction on how to use each bin correctly
- (f) through a body corporate or building manager, initiating contact with Council before the building is occupied to ensure the service is ready and to identify resources to assist with educating residents
- (g) having enough space to allow flexibility in services including space for additional recycling options.

Each of these methods are further detailed in this Guideline. There is also a variety of education resources to support improved waste management and resource recovery available through the EPA or Council. Ongoing education is one of the most important factors in encouraging residents to correctly use waste management systems.

5.2 General requirements

All developments are to include the necessary provisions to enable Council to provide effective and efficient waste collection services to the development. Waste management provisions shall

be constructed, arranged and equipped to meet the requirements of requirements of this Guideline and Council's Waste Collection Services Guideline.

5.3 Council's standard services

In accordance with Section 496 of the Local Government Act, 1993 Council levies an annual charge for the provision of domestic waste management services to those properties, which fall within the urban areas of the Kiama Municipality and are categorised by legislation as residential for rating purposes.

Council's standard waste collection service for medium density development is described in Table 6, section 4.3 of Council's Waste Collection Services Guideline.

5.4 Waste Management Plans

A WMP must be completed and submitted to Council with the development application. The WMP is used to inform Council of the waste management arrangements incorporated into a proposed

development. Waste management arrangements incorporated into proposed developments must be in accordance with this Guideline.

WMP forms are provided on Council's website. Examples of completed WMP forms are provided in Appendix D and E of this Guideline.

5.5 Waste management design considerations

The following matters are generally applicable:

- design of the development must ensure that waste collection vehicles can safely enter the site and service all bins
- potential site constraints are topography and width of the development
- on-site collections can be in purpose-designed bays, lay-bys, at ground level near the entrance to the property or in a basement
- design should consider the type of bins and collection vehicles

The onus is on the proponent to demonstrate:

- an improved planning outcome is achieved for the site
- site characteristics do not restrict the development accommodating waste collection vehicles entering and exiting in a forward direction, or emptying the bins
- that the alternative access into the site to the nominated collection point does not compromise public, resident and contractor safety.

Kerbside collections will only happen where there is enough space on the kerb for bins to be lined up without negative impacts on building amenity, pedestrian access or traffic flow.

Kerbside collections should include the following design considerations:

- bins fit in a row with minimum 30cm space between them
- bins are within the site's frontage (not impeding driveway or neighbours' lots)
- bins are a minimum 2m away from trees, bus stops, street furniture and road infrastructure
- bins are a minimum 4.2m away from overhanging tree branches, powerlines and other obstructions.

Kerbside collections should not be located adjacent to the following structures and services:

- intersections, roundabouts or traffic-calming devices
- along arterial roads
- narrow lanes which heavy rigid class vehicles cannot access
- obstructions such as trees, overhanging buildings, under eaves and low overhead powerlines
- walls and garage doors
- 'No stopping' signs or parked cars.

5.5.1 Shared bin arrangement

To reduce the number of bins per development, bins may be shared between dwellings and/or frequency of service may be increased. This will be considered and assessed by Council for each application. In this instance, each property, unit, flat or dwelling will be charged the 140L Domestic Waste Management Charge and all bins provided will be 240L for garbage and food/garden waste and 240L or 360L for recycling. Property developers will be responsible for purchasing the bins, prior to tenancy, and on receipt of the OC, through Council's Waste Services.

Consideration should also be given to the appointment of a caretaker or appointed tenant, to ensure the bins are presented to the nominated roadside or onsite collection point for servicing and returned to the property same day after servicing.

5.6 Waste bins

Council will provide waste bins to each dwelling within a medium density development with the following waste bins:

- One 80L or 140L or 240L MGB for garbage (landfill)
- One 80L*, 140L* or 240L MGB for recycling
- One 80L*, 140L* or 240L MGB for food/garden waste.

* Senior citizens or duplex/villa/townhouse property owners can apply, subject to application and approval, for an 80L or 140L yellow lid recycling bin and/or green lid food/garden waste bin.

However, if a shared bin arrangement is to be considered, the size of bins will be as stated in 5.5.2.

It is the responsibility of the property owner to request a new waste service. An initial bin establishment fee is payable upfront, per bin and the applicable Domestic Waste Management Charge is applied to the annual rates, which is dependent upon the size of the red lid garbage bin.

Council's standard collection point for residential multi-unit dwellings and the residential component of mixed use developments, is the kerbside of public roads.

5.7 Waste bin storage requirements

5.7.1 Waste bin storage and location

Storage of waste bins shall be in:

- (a) a waste bin storage area (typically a centralised communal compound located to the rear or side of the property); or
- (b) a waste bin storage room (typically a communal room located within the main building's undercroft or subbasement) or
- (c) within the individual strata allotments or garage.

5.7.2 Storage space

For medium density developments, storage space estimates are to be based on the following waste generation rates:

- 70L per week garbage
- 120L – 240L per week recycling
- 20L per week food garden OR 40L per week food and garden waste

Space shall be provided in the waste storage facility or individual strata allotment/garage for the storage of all waste bins.

Space for the placement of household bulky items suitable for dropping off at Council's Minnamurra Waste and Recycling Facility on the scheduled Household Bulky Waste Drop Off Events (held twice a year), shall be provided adjacent to the waste storage facility. It is the responsibility of the tenants/body corporate to book and transport these materials to the event.

5.7.3 Internal bins

All kitchens should incorporate dedicated space to hold at least two days collection of garbage, recycling and food waste for residential multi-unit dwellings and the residential component of mixed use developments.

Segregated garbage and recycling bins should feature:

- (a) two compartments for general waste and mixed recycling of equal volume
- (b) ideally designed to fit under a sink unit or located within a cupboard.

Council provides all residential units with a 7L kitchen caddy for the collection of food waste. A space should be provided either under a sink unit or within a cupboard for the storage of this caddy.

Design plans and specifications for the space to be provided and nominated within the kitchen for the interim storage in bins or containers as supplied for source separated garbage, recyclables and food organics should be provided as part of the Statement of Environmental Effects. Refer to Chapter 3 Common Requirement 3.1 Waste Minimisation and Management 3.1.12 Internal Bins/Containers KMC DCP 2020.

5.8 Waste collection

5.8.1 Roadside collection point

The collection point is the point from which all waste bins (garbage, recycling and food/garden waste) is collected and transferred from the storage container to a collection vehicle.

Suitable waste collection points should be planned early in the design stage and identified on the master plans prepared for Council. Depending on the size of the development, there may need to

be more than one collection point and a combination of both kerbside and onsite collection. If the development includes individual free-standing dwellings that will have kerbside collections, enough space should be allowed at the kerbside adjoining the property for the placement of three 240L bins.

Kerbside waste collection services should only be carried out if safe and practical. The location of the collection point must be decided in consultation with Council as it can determine the ability of Council to provide the service. Refer to Section 3, Chapter 3 – Common Requirements of the KMC DCP 2020.

If insufficient kerbside collection area is available, then a shared bin arrangement and/or onsite waste collection service may be required, and this needs to be determined and approved by

Council. For all on-site waste collection services, a Waste Deed of Agreement would need to be entered into prior to the waste service commencing.

Consideration should also be given to the appointment of a caretaker or appointed tenant, to ensure the bins are presented to the nominated roadside or onsite collection point for servicing and returned to the property same day after servicing.

5.8.2 Access for residents

Residents and/or caretaker or appointed tenant, should only be required to transport the waste bins a reasonable distance to the collection point. When determining a reasonable distance, the following should be considered as a minimum:

- whether the development is for aged persons and persons with restricted mobility
- appropriate gradient of traverse (recommended maximum 1:10)
- the capacity/volume of the bins
- the compaction of waste in the bins.

The path over which bins are to be transferred from the waste bin storage area to the collection point should be free of lips, steps and other obstacles. Bins should not have to be moved through the inside of dwellings to reach the collection point.

5.8.3 Bin pads

At sites where street frontage is limited, it is good practice to include in designs a bin pad to designate bin presentation areas. Bin pads can be concreted areas or a stencilled marked area on the ground. This can help ensure waste collections are considered in the design and a clear, level and safe place is made available at the kerbside for the service to occur.

Refer to Section 3, Chapter 3 – Common Requirements of the Kiama Development Control Plan 2020 for more information.

5.8.4 On-site waste collection

An on-site waste collection is when the waste service vehicle enters the development site's boundary to service waste bins at a nominated collection area. On-site collections are considered by Council when:

- there is not enough space on the kerbside to place all allocated bins
- the development cannot satisfy kerbside collection requirements
- lots of bins at the kerbside would delay collection vehicles or present unsafe conditions for vehicle traffic or collection staff
- Council deems collections at the kerbside to be unsafe such as close to schools
- the development is on an arterial road and it will be unsafe for Council's waste collection vehicles to stop.

On-site collection of waste, recycling and waste bins is considered better practice in large residential multi-unit and mixed use developments. Where on-site collections are available, Council will not enter private property with their vehicles unless indemnity against liabilities, losses, damages, and other costs arising from the on-site collection service has been provided.

To enable onsite collections developers/designers must enter into a Waste Deed of Agreement which identifies the waste service, as approved by Council, to be provided to the multi-unit development. The Waste Deed of Agreement must be signed by the property developer and Council's General Manager prior to on-site waste collection service being implemented.

Consideration should also be given to the appointment of a caretaker or appointed tenant, to ensure the bins are presented to the nominated roadside or onsite collection point for servicing and returned to the property same day after servicing.

Table 2: Typical requirements for on-site collection

Design feature	Requirements
Vehicle access	<p>Collection point must be designed to ensure a waste collection vehicle, determined by Council, can safely access and manoeuvre within the site. In some cases, universal access keys or remote controls may need to be provided to collectors to access waste areas.</p> <p>The waste collection vehicle must be able to enter and exit the site in a forward direction. The collection point should be located to minimise manoeuvring within the site.</p> <p>The route of travel to the collection point must satisfy the typical dimensions of the waste collection vehicle. This also includes adequate clearances for the vehicle. <i>AS2890.2 Parking facilities: off-street commercial vehicle facilities</i> provide typical dimensions and turning circles.</p> <p>The route of travel is to be adequately surfaced and of correct strength to support the waste collection vehicle.</p> <p>The grades of entry and exit routes must not exceed the capabilities of the waste collection vehicle and must comply with <i>AS2890.2 Parking facilities: off-street commercial vehicle facilities</i> for the relevant vehicle.</p>
Design feature	Requirements
	<p>Council does not consider a turntable to be an acceptable solution to ensure the waste collection vehicle can enter and exit the site in a forward direction.</p> <p>Planning design should consider the possible presence of parked cars on access roads.</p>
Waste collection vehicle loading area	<p>A waste collection vehicle loading area must be nominated on the submitted plans and should be:</p> <ul style="list-style-type: none"> • as close as possible to the bin storage area to minimise manual handling • located on the same level as the collection vehicle with bins not placed for collection on elevated loading bays • located so that it does not impede or restrict other vehicle and pedestrian movements during collection times • clearly separated from car parking bays, footpaths and landscaped areas • designed with enough clearance height so that bins can be emptied into the collection vehicles • located to minimise impact on residents within and adjoining the development site and not located near sensitive land uses or any habitable room or windows.

Bin-carting route	<p>Ensure that the bin transfer will comply with WHS requirements.</p> <p>The bin-carting route to the loading area from the storage area should be:</p> <ul style="list-style-type: none"> • direct and as short as possible • wholly within property boundaries • solid, concrete and non-slip • a minimum of 2.5 m wide • free from obstructions and not include any steps.
Road surface	<p>If a waste collection vehicle is required to drive onto a private road (such as a battle-axe block) or private property, the driveway and road must meet appropriate specifications for:</p> <ul style="list-style-type: none"> • load capacity • width • geometric design • overhead clearance • gradient. <p>Appropriate heavy rigid class vehicle standards (or the dimensions of the council's waste collection vehicle) should be incorporated into the development design, including those specified in:</p> <ul style="list-style-type: none"> • guidelines and codes administered by Austroads, NSW Roads and Maritime Services and WorkSafe NSW • any local traffic requirements • relevant Australian Standards, such as AS2890.2.

5.9 Noise

The ground area of the pathway between the bin storage and collection area should be of a smooth finish that enables easy movement of bins and minimises noise from bin movements.

5.10 Amenity

The potential for noise, odour and visual impacts from waste storage facility and collection must be minimised. All waste storage facilities must be adequately screened and shall not be readily visible from any public place.

5.11 Submission requirements

i. Architectural or Landscape plans showing:

- (a) Communal bin storage area or individual waste bin storage area. Each bin should be illustrated on the submitted plan. Typical bin dimensions are provided in Appendix B of Council's Waste Collection Services Guideline.
- (b) Waste bin collection area (kerbside or onsite as approved by Council). Each bin should be illustrated on the submitted plan.
- (c) path of travel for moving waste bins between bin storage area and bin collection area.

ii. An Ongoing WMP must be submitted with the DA and must include the following information:

- (a) An estimation of the weekly waste generation for garbage, recycling and food/garden waste. Waste generation rates to be used for calculations and example calculations are provided in Appendix A in this Guideline. Estimates should be provided as a volume of waste per week (in litres);
- (b) Number each type of bin (garbage, recycling and food/garden waste) required by the development;
- (c) Details of waste storage areas including dimensions, floor area (m²) and location;
- (d) Details of waste collection arrangements including the collection point (with dimensions), floor area (m²) and location;
- (e) Proposed arrangements for management and collection of waste including contact details of relevant stakeholders e.g. building managers;
- (f) Proposed arrangements for the management, maintenance and cleaning of all waste management areas;
- (g) Proposed arrangements for the management and collection of bulky waste;
- (h) Proposed arrangements for the management of litter within the property boundaries (the area of public footpath or public area adjacent to the premises is to be maintained in a clean and tidy condition);
- (i) Provisions for additional waste disposal throughout the move in phase such as bulk cardboard collection; and
- (j) Proposed method to educate tenants/owners about garbage, recycling and food/garden waste management.

Figure 6: Example layout – medium density development with underground waste storage facility layouts

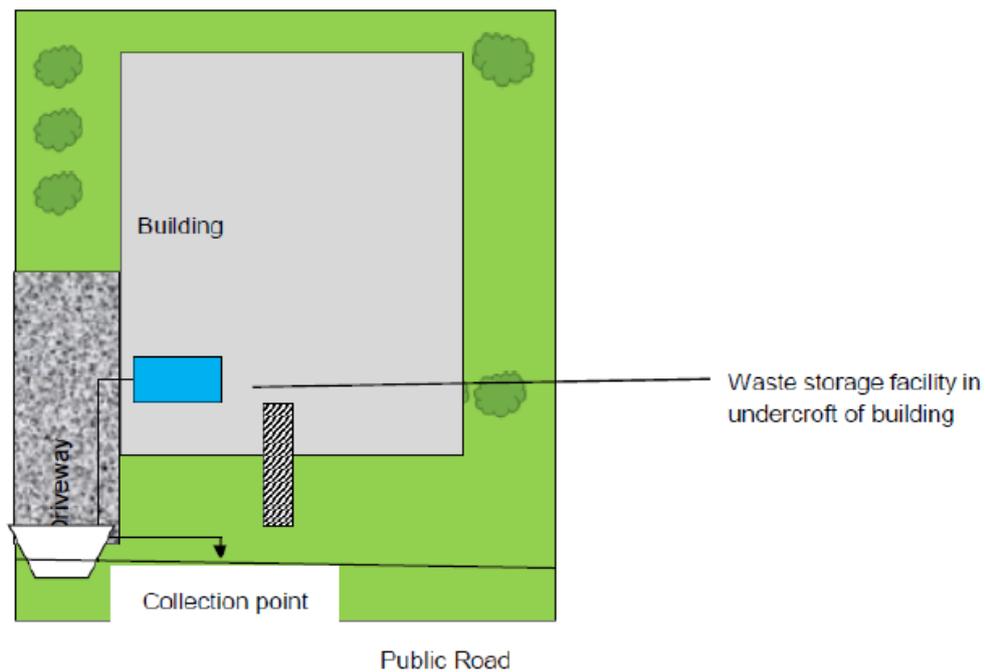
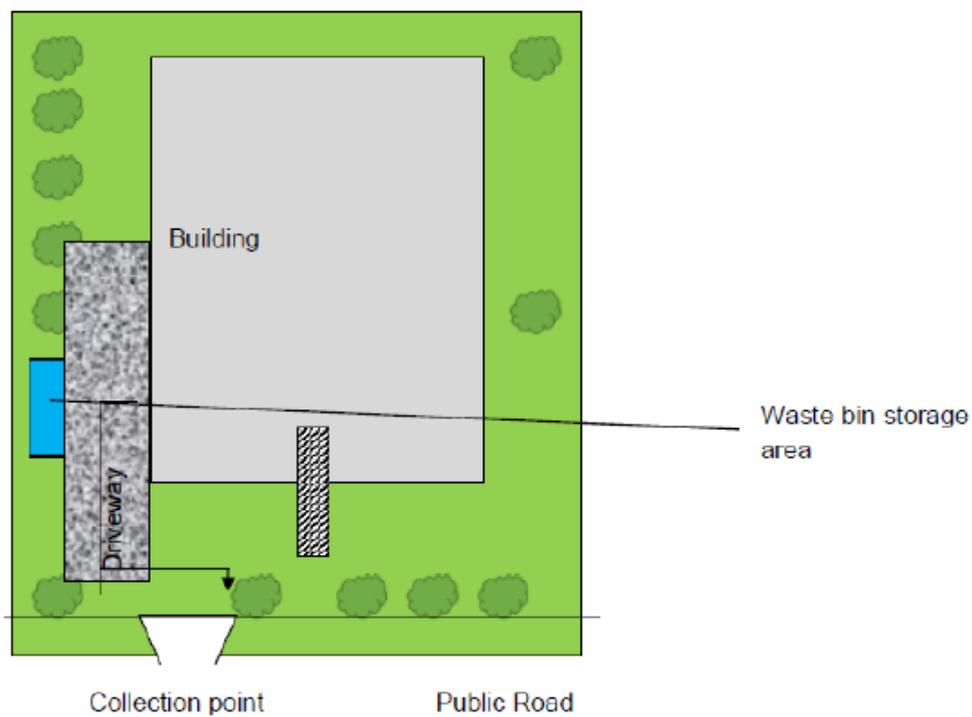


Figure 7: Example layout – medium density with external waste bin enclosure area



6.0 Commercial Development

6.1 Outline of dwelling type

This section applies to commercial developments which include;

- child care centres (class 3 buildings)
- office premises, retail premises, shops, food and drink premises (class 5 and 6 buildings)
- medical centres (class 9a buildings)
- assembly buildings, theatres, cinemas (class 9b buildings)
- entertainment and sporting facilities/ events.

6.2 General requirements

All developments are to include the necessary provisions to enable Council to provide effective and efficient waste collection services to the development. Waste management provisions shall be constructed, arranged and equipped to meet the requirements of requirements of requirements of this Guideline and Council's Waste Collection Services Guideline.

6.3 Councils standard services

In accordance with Section 496 of the Local Government Act, 1993 Council levies an annual charge for the provision of domestic waste management services to those properties, which fall within the urban areas of the Kiama Municipality and are categorised by legislation as residential for rating purposes.

The commercial service is outline in Table 7 and section 5.3 of Council's Waste Collection Services Guideline.

6.4 Waste Management Plans

A WMP must be completed and submitted to Council with the development application. The WMP is used to inform Council of the waste management arrangements incorporated into a proposed development. Waste management arrangements incorporated into proposed developments must be in accordance with this Guideline.

The WMP forms are provided on Councils website. Appendix D of this Guideline provides an example of a completed WMP forms.

6.5 Waste management design considerations

The following matters are generally applicable:

- design of the development must ensure that kerbside waste collection can be undertaken or if onsite waste servicing is to be undertaken, as approved by the waste service provider (Council or private), waste collection vehicles can safely enter the site and service all bins
- potential site constraints are topography and width of the development
- on-site collections can be in purpose-designed bays, lay-bys, at ground level near the entrance to the property or in a basement
- design should consider the type of bins and collection vehicles

The onus is on the proponent to demonstrate:

- an improved planning outcome is achieved for the site
- site characteristics do not restrict the development accommodating waste collection vehicles entering and exiting in a forward direction, or emptying the bins

- that the alternative access into the site to the nominated collection point does not compromise public, resident and contractor safety.

6.6 General requirements

- i. Temporary garbage and recycling storage area/s must be provided within each tenancy. These are to be of sufficient size to store a minimum of one day's worth of waste (this may vary depending upon size of development).
- ii. Between collection periods, all waste/recyclable materials generated on site must be kept in enclosed bins with securely fitting lids so the contents are not able to leak or overflow. Bins must be stored in the designated waste bin storage room/s or area/s.
- iii. The number of bins to be provided must be calculated based on waste generation rates in Appendix A of this Guideline.
- iv. Bin storage area/s and facilities for food premises must comply with AS4674. Premises which generate at least 50 litres per day of meat, seafood or poultry waste must have that waste collected on a daily basis or must store that waste in a dedicated and refrigerated waste storage area until collection;
- v. Every development must include designated communal bin storage area/s, to accommodate waste from all tenancies prior to collection. Storage area/s must:
 - (a) provide convenient area/s for separation of waste;
 - (b) provide convenient access to each commercial area/tenancy of the development;
 - (c) provide for storage of all waste bins required.
 - (d) have a floor area at least 50% larger than the size of the bins and/or equipment;
 - (e) have a smooth graded ground surface;
 - (f) be well lit, built in accordance with the Building Code of Australia and well ventilated in accordance with AS 1668.4 (AS 1668.2 for buildings requiring mechanical ventilation);
 - (g) allow for each bin to be readily accessed and manoeuvred in and out of the area, providing a minimum 1.6m wide unobstructed walkway and a minimum 1.8m wide door/doorway (doors must be able to be locked open);
 - (h) be suitably enclosed, covered and maintained so as prevent polluted wastewater runoff and unpleasant odour;
 - (i) provide an external water tap adjacent to the storage area;
 - (j) provide a drain in the bin storage area discharging to a sewer connection (where relevant);
 - (k) be sealed sufficiently to prevent vermin;
 - (l) provide signage instructing users on waste bin type/s and appropriate material/s; and
 - (m) be adaptable to changes in waste generation rates and type of waste produced.
- vi. Waste compactors should be considered for large commercial developments.
- vii. Kerbside collection must generally be provided for commercial developments. If an onsite waste collection is to be undertaken by a private waste contractor:
 - (a) sites must allow for a Heavy Rigid Vehicle throughout the vehicle's entire onsite path of travel as per AS2890.2. Refer to Appendix C in Council's Waste Collection Services Guideline for waste collection vehicle dimensions and manoeuvring.

- (b) be designed in a way which collection vehicles do not impede access to, within or from the site for other users; and
- (c) be designed in a way which collection vehicles can enter and exit the site in a forward direction. Reversing of a truck onsite must only be done in the vicinity of a turning bay. Trucks will not use private driveways or carparks as a turning area.
- viii. Arrangements must be in place regarding the regular maintenance and cleaning of waste bin storage areas. Tenants and cleaners must be aware of their obligations in regards to these matters; and
- ix. All commercial developments which produce niche waste i.e. food waste, polystyrene, etc. are to consider recycling opportunities in their WMP.

6.7 Waste bins

Council collects commercial waste bins of varying sizes depending on the needs of each commercial operation. Council offers commercial customers 240L MGBs for garbage and recycling or 1,100L MGBs for recycling. As a minimum, Council requires one 240L MGB for garbage and one 1100L Refer to [Appendix B of Council's Waste Collection Services Guideline](#) for bin dimensions.

6.8 Waste bin storage requirements

6.8.1 Waste storage area and location

Commercial tenants are to have a separate dedicated waste bin room/enclosure. Storage of waste bins shall be in:

- (a) An onsite waste bin storage area; or
- (b) A waste bin enclosure; or
- (c) A waste bin room

As a minimum, the following number of bins will be required per commercial unit:

- 1 x 1100L MGB for paper and cardboard/or 4 x 240L bins
- 1 x 240L MGB garbage
- 1 x 240L MGB recycling

Where multiple tenant commercial developments are proposed, communal waste storage facilities should be provided.

6.8.2 storage space

The commercial waste generation rates provided in Appendix A of this Guideline shall be used to estimate the required space for the storage of all wastes arising from commercial premises. The size of a waste storage facility should be calculated based on minimum number of bins per commercial unit as identified and allowing for estimated waste generation rates, proposed bin capacities and collection frequencies.

Service lifts shall have sufficient space to easily transfer at least two loaded 240L MGB's or one loaded 1,100L MGB per transfer from the floors to the commercial waste bin room/enclosure.

Space shall be provided in the commercial waste bin room/enclosure for the storage of all waste handling and compact equipment, and waste bins required to store all waste and recycling generated by the development between collections.

For commercial units within a multi-unit development, sufficient space should be provided in a dedicated waste storage room located on each level for the storage of waste bins that can store at least one day's waste.

The frequency of service is to be determined by the tenant with the commercial waste service provider.

6.8.3 Waste handling within developments

For multi storey commercial developments, a separate service lift (or goods lift) shall be provided to transfer waste from building floors to the waste storage facility.

Consideration should be given to the use of garbage and/or cardboard compaction equipment in commercial developments. Compaction equipment should be located in the commercial waste bin enclosure/room. Refer to Appendix B of this Guideline for examples of compaction equipment.

6.9 Requirements for particular commercial developments

6.9.1 Restaurants, food retailers, cafes, clubs, takeaways, supermarkets, shopping centres, hostels, hotels, motels, serviced apartments and institutional premises

Space shall be allocated for source separation and storage of recyclable materials such as plastics, metals (eg steel and aluminium cans) cardboard, glass and organic wastes.

Space must be allocated for the separate storage of waste cooking oil when used in a development. The waste cooking oil storage area must be bunded and drained to a grease trap.

The frequency of service will be dependent upon:

- the type and size of the development
- services provided (garbage, recycling, food and/or garden waste)
- scheduled collection days
- bin or container capacity
- individual or shared bins and/or containers
- ability of commercial waste service provider to provide more frequent services.

Individual restaurants, clubs and hotels that generate significant amounts of waste and recyclables must have a separate, dedicated waste storage facility (separate from any other commercial unit within the property).

For small food outlets such as street front restaurants and cafes, the waste storage facility shall have sufficient space for the separate collection of waste, recycling, paper and cardboard.

Grease trap waste must only be removed by appropriately licensed waste contractors and in accordance with the requirements of Sydney Water. If the grease arrestor room does not have access from the street, provision must be made for a waste line to the boundary alignment to allow pumping from the street.

6.9.2 Butchers/delicatessens

Retail meat premises are butchers that process and sell meat for retail sale. This includes boning, slicing, cutting and packing. If businesses only sell pre-packaged meat and do not process product, they instead need to comply with the requirements for general retail food outlets.

Retail meat premises must have facilities for the storage of garbage and recyclable matter that:

- (a) adequately contain the volume and type of garbage and recyclable matter
- (b) enclose the garbage and recyclable matter so they do not provide a breeding ground for pests, and
- (c) are designed and constructed so that they may be easily and effectively cleaned.

6.9.3 Offices

In addition to general space requirements for waste, provision must be made on each office floor and in the waste storage facility for the separation and storage of all recyclable cardboard, paper, and paper products that are likely to be generated on the premises.

6.9.4 Health care facilities

Waste storage and handling must be in accordance with requirements of NSW Health (see *Waste Management Guidelines for Health Care Facilities, 1998*).

The waste storage facility must allow for the separate storage of:

- clinical, hazardous and related wastes
- garbage, recycling and food/garden waste if provided.

There must be clear physical separation of clinical and related wastes from garbage and recyclable materials at all times.

Clinical and related wastes must be stored in appropriately colour coded containers, clearly labelled according to the *NSW Health Waste Management Guidelines for Health Care Facilities, 1998*.

All waste generated from health care facilities must be managed in accordance with the *Environmental Guidelines: Assessment and classification of liquid and non liquid wastes (EPA, 1999)*.

6.9.5 Retail (non-food)

For multi storey retail outlets, a dedicated service compartment must be provided on each storey of the building. Space shall be provided on each storey of the building. Space shall be provided in the service compartment to store at least one day's generation of garbage and recycling on each floor.

In multi-tenanted buildings, a communal waste bin storage room/enclosure shall be considered.

Provision must be made for the separation of cardboard for recycling in the waste service compartments and in the centralised waste bin room/enclosure.

If more than 10m³ of garbage and recycling is likely to be generated per day, then the central waste bin room/enclosure must be separate from any goods receival dock and waste reduction equipment must be used to compact garbage.

Note: Proposals for change of use must have regard to the above and show how the intent of these Guidelines can be met with alternative proposals.

6.10 Waste collection

6.10.1 Roadside collection point

The collection point is the point from which all waste bins (garbage, recycling and food/garden waste, if provided) is collected and transferred from the storage container to a collection vehicle.

Suitable waste collection points should be planned early in the design stage and identified on the master plans prepared for Council. Depending on the size of the development, there may need to be more than one collection point and a combination of both kerbside and onsite collection

Council's commercial waste service will only be undertaken from the kerbside, yet should only be carried out if safe and practical. The location of the collection point must be decided in consultation with Council as it can determine the ability of Council to provide the service. Refer to Section 3, Chapter 3 – Common Requirements of the KMC DCP 2020.

Private waste collection providers may offer a commercial waste service (kerbside or onsite) and should be consulted when determining waste provisions.

To minimize visual impact, obstruction of footpath/walkways and potential offensive odours, bins must be presented to the nominated collection point for servicing and returned to the waste bin storage area immediately after servicing.

6.10.2 Access for commercial tenants

Commercial tenants should only be required to transport the waste bins a reasonable distance to the nominated collection point. When determining a reasonable distance, the following should be considered as a minimum:

- appropriate gradient of traverse (recommended maximum 1:10)
- the capacity/volume of the bins
- the compaction of waste in the bins.

The path over which bins are to be transferred from the waste bin storage area to the collection point should be free of lips, steps and other obstacles. Bins should not have to be moved through the inside of units to reach the nominated collection point.

6.10.3 Bin pads

At sites where street frontage is limited, it is good practice to include in designs a bin pad to designate bin presentation areas. Bin pads can be concreted areas or a stencilled marked area on the ground. This can help ensure waste collections are considered in the design and a clear, level and safe place is made available at the kerbside for the service to occur. Refer to Section 3, Chapter 3 – Common Requirements of the Kiama Development Control Plan 2020 for more information.

6.11 Noise

The ground area of the pathway between the bin storage and collection area should be of a smooth finish that enables easy movement of bins and minimises noise from bin movements.

6.12 Amenity

The potential for noise, odour and visual impacts from waste storage facility and collection must be minimised.

All waste storage facilities must be adequately screened and shall not be readily visible from any public place.

6.13 Submission requirements

i. Architectural plans showing:

- (a) temporary bin storage area/s within each tenancy (where relevant). Each bin should be illustrated on the submitted plan. Typical bin dimensions are provided in Appendix B of Council's Waste Collection Services Guideline.
- (b) communal bin storage area/s. Each bin should be illustrated on the submitted plan.
- (c) bin collection area/s. Each bin should be illustrated on the submitted plan.
- (d) path of travel for moving waste bins between storage area and collection area as applicable.

ii. Swept path analysis prepared by a suitably qualified professional in accordance with AS2890.2 must be provided. Specifications for waste collection vehicles are provided in Appendix C of Council's Waste Collection Services Guideline. The swept path analysis will illustrate that a heavy rigid vehicle and Council's waste collection vehicle can;

- (a) enter the site in a forward direction;

- (b) perform collections in a safe manner; and
- (c) exit the site in a forward direction

Note: If waste collection is conducted by Council and occurs from private roads a Waste Deed of Agreement must be entered into with Council prior to the issuing of the OC.

iii. An Ongoing WMP must be submitted with the DA and must include the following information:

- (a) an estimation of waste generation for garbage, recycling, and any other relevant waste type. Waste generation rates to be used for calculations and example calculations are provided in Appendix A of this Guideline. Estimates should be provided as a volume of waste per week (in litres);
- (b) number of each type of bin (garbage, recycling and any other relevant type) required by the development;
- (c) number of waste collection/s for each type of waste per week;
- (d) whether collection will be conducted by Council or private waste service provider.

Note: Council will determine whether it can provide a waste collection service to the development.

- (e) details of waste storage areas including dimensions, floor area (m²) and location;
- (f) details of any waste management equipment included in the development. Descriptions of some available waste management equipment options are provided in Appendix B of this Guideline;
- (g) details of dedicated waste collection point including dimensions, floor area (m²) and location;
- (h) proposed arrangements for management and collection of waste including contact details of relevant stakeholders;
- (i) proposed arrangements for the management, maintenance and cleaning of all waste bin storage areas;
- (j) proposed management of litter within the property boundaries (the area of public footpath or public area adjacent to the premises is to be maintained in a clean and tidy condition);
- (k) proposed method to educate tenants/owners about waste management.

7.0 Education Facilities

7.1 Outline of dwelling type

This section applies to education facilities.

Examples of educational facilities located within Kiama Local Government Area include:

- child care centres
- primary schools
- secondary schools

Many educational facilities contain food outlets, gymnasiums and other retail outlets.

7.2 General requirements

All developments are to include the necessary provisions to enable Council to provide effective and efficient waste collection services to the development. Waste management provisions shall be constructed, arranged and equipped to meet the requirements of requirements of this Guideline and Council's Waste Collection Services Guideline.

7.3 Councils standard services

Waste generated by educational facilities is commercial waste. Educational facilities can therefore utilise Council's commercial waste collection service.

Council's commercial waste collection service is described in Section 5 of Council's Waste Collection Services Guideline.

Bins that are typically used by educational facilities include MGBs and / or bulk bins. Council prefers the use of 240L MGBs for garbage and 240L and/or 1,100L MGBs for recycling, placed at the kerbside for waste collection. Bins should be chosen that are appropriate for the type of waste generated.

7.4 Waste Management Plans

A WMP must be completed and submitted to Council with the development application. The WMP is used to inform Council of the waste management arrangements incorporated into a proposed development. Waste management arrangements incorporated into proposed developments must be in accordance with this Guideline.

The WMP forms are provided on Councils website. Appendix D of this Guideline provides an example of a completed WMP forms.

7.5 Waste management design considerations

The following matters are generally applicable:

- design of the development must ensure that kerbside waste collection can be undertaken or if onsite waste servicing is to be undertaken, as approved by a private waste service provider, waste collection vehicles can safely enter the site and service all bins
- potential site constraints are topography and width of the development
- on-site collections can be in purpose-designed bays, lay-bys, at ground level near the entrance to the property or in a basement
- design should consider the type of bins and collection vehicles

The onus is on the proponent to demonstrate:

- an improved planning outcome is achieved for the site
- site characteristics do not restrict the development accommodating waste collection vehicles entering and exiting in a forward direction, or emptying the bins
- that the alternative access into the site to the nominated collection point does not compromise public, resident and contractor safety.

7.6 General requirements

- i. Temporary garbage and recycling storage area/s must be provided. These are to be of sufficient size to store a minimum of one day's worth of waste (this may vary depending upon size of development);
- ii. Between collection periods, all waste materials generated on site must be kept in enclosed bins with securely fitting lids so the contents are not able to leak or overflow. Bins must be stored in the designated waste bin storage room/s or area/s;

- iii. The number of bins to be provided must be calculated based on waste generation rates in Appendix A of this Guideline.
- iv. Bin storage areas for food premises ie. Canteen, hospitality departments within the education facility must comply with AS4674. Food premises which generate at least 50 litres per day of meat, seafood or poultry waste must have that waste collected on a daily basis or must store that waste in a dedicated and refrigerated waste storage area until collection;
- v. Every development must include designated communal bin storage area/s, to accommodate waste from all departments of the education facility to collection. Storage area/s must:
 - (a) provide convenient area/s for separation of waste;
 - (b) provide convenient access to each department of the development;
 - (c) provide for storage of all waste bins required. Refer to Appendix A of this Guideline for waste generation rates and bin requirements;
 - (d) have a floor area at least 50% larger than the size of the bins and/or equipment;
 - (e) have a smooth graded ground surface;
 - (f) be well lit, built in accordance with the Building Code of Australia and well ventilated in accordance with AS 1668.4 (AS 1668.2 for buildings requiring mechanical ventilation);
 - (g) allow for each bin to be readily accessed and manoeuvred in and out of the area, providing a minimum 1.6m wide unobstructed walkway and a minimum 1.8m wide door/doorway (doors must be able to be locked open);
 - (h) be suitably enclosed, covered and maintained so as prevent polluted wastewater runoff and unpleasant odour;
 - (i) provide an external water tap adjacent to the storage area;
 - (j) provide a drain in the bin storage area discharging to a sewer connection (where relevant);
 - (k) be sealed sufficiently to prevent vermin;
 - (l) provide signage instructing users on waste bin type/s and appropriate material/s; and
 - (m) be adaptable to changes in waste generation rates and type of waste produced.
 - (n) Waste compactors should be considered for large commercial developments. Refer to Appendix B of this Guideline.
- vi. Kerbside collection must generally be provided for commercial developments. If an onsite waste collection is to be undertaken by a private waste service provider:
 - (a) sites must allow for a Heavy Rigid Vehicle throughout the vehicle's entire onsite path of travel as per AS2890.2;
 - (b) be designed in a way which collection vehicles do not impede access to, within or from the site for other users; and
 - (c) be designed in a way which collection vehicles can enter and exit the site in a forward direction. Reversing of a truck onsite must only be done in the vicinity of a turning bay. Trucks will not use private driveways or carparks as a turning area.
- viii. Arrangements must be in place regarding the regular maintenance and cleaning of waste bin storage areas. Cleaners must be aware of their obligations in regards to these matters; and

- ix. All facilities which produce niche waste i.e. food waste, polystyrene, etc. are to consider recycling opportunities in their WMP.

7.7 Waste bin storage requirements

7.7.1 Waste storage area and location

The storage of waste bins shall be in:

- (a) an onsite storage area (for smaller developments typically requiring space for two or three 240 L bins); or
- (b) a waste bin enclosure; or
- (c) a waste bin room; or
- (d) a refrigerated garbage room.

Storage of garbage and recycling bins will vary according to the type of teaching activity that occurs within the facility, and the number of students and staff. A number of waste storage areas may be appropriate.

Refrigerated garbage rooms shall be provided where there are large quantities of perishable wastes and infrequent collections.

7.7.2 Waste handling within educational facilities

For multi storey educational facilities, a service lift (or goods lift) shall be provided to transfer waste from building floors to the waste storage facility. Service lifts / passenger lifts shall have sufficient space to easily transfer at least two loaded waste bins (240L MGBs) together or one loaded 1,100L MGB from the floors to the waste storage facility.

Consideration should be given to the use of garbage compaction units and cardboard compaction units in educational facilities where volumes of generated garbage and cardboard are likely to be significant.

7.7.3 Storage space

Waste generation rates provided in Appendix A of this Guideline should be used as a guide when estimating the required space for the storage of all wastes arising from an educational facility.

The space requirements for the waste storage facility should be determined by considering estimated waste generation rates, proposed bin capacities and collection frequencies. Calculation of waste generation rates should also be based on industry standards.

Space must be provided on each floor for temporary storage of garbage and recyclables, such as recyclable cardboard, paper, and paper products and food/garden waste if provided, prior to transfer to the waste storage facility.

All wastes generated at an educational facility shall be stored in appropriately sized bins in the waste storage facility.

The use of compaction equipment should be considered for the compaction of garbage and, paper and cardboard recycling.

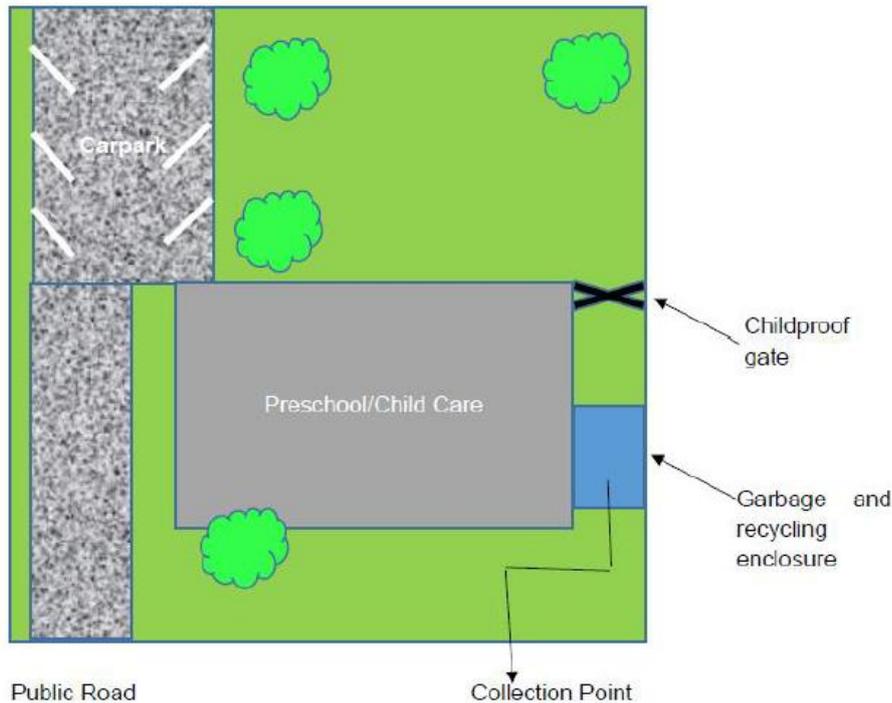
Sufficient space should be allocated in each classroom / teaching area for management of recyclables as appropriate. For example, each desk-based teaching classroom or lecture theatre should have sufficient space for a paper recycling bin, hospitality cooking rooms should have provisions for co-mingled recyclables etc.

Examples of typical recyclables for different teaching areas are provided below, these are provided as a guide only. The DA should consider the type of teaching activity to be carried out in each area when determining appropriate space to allow for recycling.

Table 3: Type of teaching activity to determine appropriate space for recyclables

Type of activity	Potential recyclables
General – all educational facilities	Paper and cardboard
Cafeteria/eatery	Recyclable containers (aluminium, PET, HDPE) Glass
Administration areas	Paper and cardboard Printer toners
Business studies, commerce, mathematics, general classroom work etc.	Paper and cardboard Printer toners
Computing, engineering	Paper and cardboard Printer toners Metals Computer parts
Hospitality	Food waste (including waste oil) Recyclable containers (aluminium, PET, HDPE, metal) Glass
Engineering, trades such as plumbing, electrical work, metalwork, automotive etc.	Metal
Science laboratories	Glass
Textiles and design	Textiles
Woodwork	Sawdust and untreated wood offcuts – may be able to be collected by organic waste processor

Figure 8: Example layout – Pre school/Child care



8.0 Mixed Use Developments

8.1 Outline of development

Mixed-use developments typically contain both commercial and residential facilities. Mixed-use developments may also contain recreational or other facilities.

Small mixed-use developments are typically two storey developments with the residential dwelling located above the commercial outlet on the ground floor (street level). Small mixed-use developments typically have one or two levels (or more) with the residential dwelling located above the commercial outlet on the ground floor (street level).

Larger mixed-use developments typically have one or two levels (or more) of commercial dwellings beneath low-rise or larger residential developments.

8.2 General requirements

All developments are to include the necessary provisions to enable Council to provide effective and efficient waste collection services to the development. Waste management provisions shall be constructed, arranged and equipped to meet the requirements of requirements of this Guideline and Council's Waste Collection Services Guideline.

8.3 Councils standard services

Council provides domestic waste collection services to residential dwellings in mixed-use developments. Waste generated in commercial tenants (or recreational and educational facilities) of mixed-use developments, is commercial waste. Council provides a commercial waste collection service. Council's commercial waste collection service is described in Section 5 of Council's Waste Collection Services Guideline.

8.3.1 Onsite waste servicing arrangement for residential component of mixed use developments

If an on-site waste service arrangement for the residential component only is to be considered, the developer would need to seek approval from Council and then enter into a Waste Deed of Agreement indemnifying Council against any damage to person or property whilst undertaking on-site waste servicing. Each unit within the development would incur the on-site waste service fee per week. This fee would be charged to the Strata Plan.

8.3.2 Use of private waste service providers

The waste management systems and the location of the collection point should always be designed so that Council can provide the standard domestic waste management service for the life of the building. Where it has been determined that the standard domestic waste management service or an on-site waste servicing arrangement cannot be undertaken, then a private waste service provider may need to be engaged.

If a private waste service provider is to be engaged a WMP will need to be submitted with the DA and the following provisions are to be met:

- (a) a statement from a waste service provider is submitted stating the proposed system is able to be serviced by a private waste service provider
- (b) the waste management plan states the reason why a private waste service provider is required for the building and information supporting this decision
- (c) design plans of the waste storage area/waste bin room/waste bin enclosure must be provided demonstrating that it complies with required specifications. Refer to Section 3 Chapter 3 – Common Requirements of the KMC DCP 2020. This is because if, for any reason, the use of a private waste service provider stops, Council may be called on to carry out the waste collection. If this happens, Council will be required to service the bins using its own collection vehicles and put in place requirements to the Strata Plan such as a Waste Deed of Agreement and purchase of bins.

If a private waste service provider is used, Council is still required to levy an annual charge for domestic waste services to each residential premise. This fee will have to be paid to Council by the owner of each dwelling, even if the waste service is not provided by Council. This will be in addition to the waste service fee charged by the private waste service provider.

Where a private waste service provider is the best option, an agreement should be put in place between the strata manager or body corporate, and Council requires the private waste service provider to supply quarterly, or by some other regular interval, waste data reports. This data will help Council monitor the performance of the waste systems, assess contamination rates, and provide any necessary education materials to the residents of the building.

8.3.3 Commercial component of mixed use developments

Council operates a commercial waste collection service that offers collection of garbage and recycling up to 7 days per week. Other waste collection providers may offer these services and should be consulted when determining waste provisions.

Council's standard waste collection service for commercial developments is described in Council's Waste Collection Services Guideline.

8.4 Waste Management Plans

A WMP must be completed and submitted to Council with the development application. The WMP is used to inform Council of the waste management arrangements incorporated into a proposed

development. Waste management arrangements incorporated into proposed developments must be in accordance with this Guideline.

The WMP forms are provided on Councils website. Appendix D provides an example of a completed WMP forms.

8.5 Waste management design considerations

The following matters are generally applicable:

- design of the development must ensure that kerbside waste collection can be undertaken or if onsite waste servicing is to be undertaken, as approved by the waste service provider (Council or private), waste collection vehicles can safely enter the site and service all bins
- potential site constraints are topography and width of the development
- on-site collections can be in purpose-designed bays, lay-bys, at ground level near the entrance to the property or in a basement
- design should consider the type of bins and collection vehicles

The onus is on the proponent to demonstrate:

- an improved planning outcome is achieved for the site
- site characteristics do not restrict the development accommodating waste collection vehicles entering and exiting in a forward direction, or emptying the bins
- that the alternative access into the site to the nominated collection point does not compromise public, resident and contractor safety.

8.6 General requirements

- i. A dedicated waste bin storage area/room must be provided for the residential component of a mixed use development.
- ii. A dedicated waste bin storage area/room must be provided for the commercial component of a mixed use development;
- iii. Each waste bin storage area/room must be of a sufficient size to accommodate the number of bins required to cater for the residential and commercial units;
- iv. Between collection periods, all waste materials generated on site must be kept in enclosed bins with securely fitting lids so the contents are not able to leak or overflow. Bins must be stored in the designated waste bin storage room/s or area/s;
- v. The number of bins to be provided must be calculated based on waste generation rates in Appendix A of this Guideline.
- vi. Bin storage area/s and facilities for food premises must comply with AS4674. Premises which generate at least 50 litres per day of meat, seafood or poultry waste must have that waste collected on a daily basis or must store that waste in a dedicated and refrigerated waste storage area until collection;
- vii. Each waste bin storage areas/rooms must:
 - (a) provide convenient area/s for separation of waste;
 - (b) provide convenient access to each commercial area/tenancy of the development;
 - (c) provide for storage of all waste bins required. Refer to Appendix A of this Guideline for waste generation rates and bin requirements;
 - (d) have a floor area at least 50% larger than the size of the bins and/or equipment;

- (e) have a smooth graded ground surface;
 - (f) be well lit, built in accordance with the Building Code of Australia and well ventilated in accordance with AS 1668.4 (AS 1668.2 for buildings requiring mechanical ventilation);
 - (g) allow for each bin to be readily accessed and manoeuvred in and out of the area, providing a minimum 1.6m wide unobstructed walkway and a minimum 1.8m wide door/doorway (doors must be able to be locked open);
 - (h) be suitably enclosed, covered and maintained so as prevent polluted wastewater runoff and unpleasant odour;
 - (i) provide an external water tap adjacent to the storage area;
 - (j) provide a drain in the bin storage area discharging to a sewer connection (where relevant);
 - (k) be sealed sufficiently to prevent vermin;
 - (l) provide signage instructing users on waste bin type/s and appropriate material/s; and
 - (m) be adaptable to changes in waste generation rates and type of waste produced.
- viii.** Waste compactors should be considered for large mixed use developments, especially for the commercial component. Refer to Appendix B of this Guideline.
- ix.** Kerbside collection must generally be provided for the residential and commercial units within a mixed use development. If an onsite waste collection is to be undertaken:
- (a) by Council for the residential component of the mixed use development and/or
 - (b) by a private waste service provided for the commercial component of a mixed use development, then
 - i. sites must allow for a Heavy Rigid Vehicle throughout the vehicle's entire onsite path of travel as per AS2890.2;
 - ii. be designed in a way which collection vehicles do not impede access to, within or from the site for other users; and
 - iii. be designed in a way which collection vehicles can enter and exit the site in a forward direction. Reversing of a truck onsite must only be done in the vicinity of a turning bay. Trucks will not use private driveways or carparks as a turning area.
- x.** Arrangements must be in place regarding the regular maintenance and cleaning of waste bin storage areas. Tenants and cleaners must be aware of their obligations regarding these matters; and
- xi.** All commercial developments which produce niche waste i.e. food waste, polystyrene, etc. are to consider recycling opportunities in their WMP.

8.7 Waste bins

In mixed use developments, waste collection is treated separately ie. Urban waste service for the residential component and a commercial waste service (if preferred) for the commercial component.

8.7.1 Residential component – waste bins

Council will provide waste bins to each dwelling within a medium density development with the following waste bins:

- One 80L or 140L or 240L MGB for garbage (landfill)
- One 80L*, 140L*, 240L or 360L MGB for recycling

- One 80L*, 140L* or 240L MGB for food/garden waste.

* Senior citizens or duplex/villa/townhouse property owners can apply, subject to application and approval, for an 80L or 140L yellow lid recycling bin and/or green lid food/garden waste bin.

However, if a shared bin arrangement is to be considered, the size of bins will be as stated in Council's Waste Collection Services Guideline.

It is the responsibility of the property owner to request an urban waste service. An initial bin establishment fee is payable upfront, per bin and the applicable Domestic Waste Management Charge is applied to the annual rates, which is dependent upon the size of the red lid garbage bin. Council's standard collection point for residential units within mixed use developments, is the kerbside of public roads.

8.7.2 Commercial component – waste bins

Council collects commercial waste bins of varying sizes depending on the needs of each commercial operation. Council offers commercial customers 240L MGBs for garbage and recycling or 1,100L MGBs for recycling. As a minimum, Council requires one 240L MGB for garbage and one 1100L for each commercial unit. Refer to Appendix B of Council's Waste Collection Services Guideline for bin size dimensions.

8.8 Waste bin storage requirements

8.8.1 Waste bin storage area and location

Storage of waste bins for the residential component and for the commercial component of a mixed use development, shall be in:

- (a) a waste bin storage area (typically a centralised communal compound located to the rear or side of the property); or
- (b) a waste bin storage room (typically a communal room located within the main building's undercroft or subbasement) or
- (c) within the individual strata allotments or garage.

8.8.2 Residential component – waste bin storage space

For the residential component of mixed use developments, waste bin storage space estimates for each unit are to be based on the following waste generation rates:

- 70L per week garbage
- 120L – 240L per week recycling
- 20L per week food garden OR 40L per week food and garden waste

Space shall be provided in the waste storage area/room or individual strata allotment/garage for the storage of all waste bins.

The actual number of bins will be dependent upon:

- (a) if a shared bin arrangement is to be implemented, as described in Table 16.
- (b) if each individual residential unit is to be issued with their own set of bins

Space for the placement of household bulky items suitable for dropping off at Council's Minnamurra Waste and Recycling Facility on the scheduled Household Bulky Waste Drop Off Events (held twice a year), shall be provided adjacent to the waste storage facility. It is the responsibility of the tenants/body corporate to book and transport these materials to the event.

8.8.3 Commercial component – waste bin storage space

For the commercial component of mixed use developments, waste bin storage space estimates for each unit is dependent upon the needs of each commercial operation. Council offers commercial customers 240L MGBs for garbage and recycling or 1,100L MGBs for recycling and various waste service collection frequency options. As a minimum, the space to be provided in the waste bin storage area/room, must be able to accommodate one 240L MGB for garbage and one 1100L for each commercial unit. Refer to Appendix B of Council's Waste Collection Services Guideline for bin dimensions.

8.8.4 Commercial component – waste handling

If the commercial units are to be incorporated across all floors of a mixed use development, a separate service lift (or goods lift) shall be provided to transfer waste from building floors to the waste bin storage area/room.

Consideration should be given to the use of garbage and/or cardboard compaction equipment for the commercial units. Compaction equipment should be located in the commercial waste bin storage area/room. Refer to Appendix B of this Guideline for examples of compaction equipment.

8.8.5 Internal bins

All kitchens within mixed use development should incorporate dedicated space to hold at least two days collection of garbage, recycling and food waste for residential multi-unit dwellings and the residential component of mixed use developments.

Segregated garbage and recycling bins should feature:

- (a) two compartments for general waste and mixed recycling of equal volume
- (b) ideally designed to fit under a sink unit or located within a cupboard.

Council provides all residential units with a 7L kitchen caddy for the collection of food waste. A space should be provided either under a sink unit or within a cupboard for the storage of this caddy.

Design plans and specifications for the space to be provided and nominated within the kitchen for the interim storage in bins or containers as supplied for source separated garbage, recyclables and food organics should be provided as part of the Statement of Environmental Effects. Refer to Chapter 3 Common Requirement 3.1 Waste Minimisation and Management 3.1.12 Internal Bins/Containers KMC DCP 2020.

8.9 Waste Collection

8.9.1 Roadside collection point

The collection point is the point from which all waste bins (garbage, recycling and food/garden waste) is collected and transferred from the storage container to a collection vehicle.

Suitable waste collection points should be planned early in the design stage and identified on the master plans prepared for Council. Depending on the size of the development, there may need to be more than one collection point and a combination of both kerbside and onsite collection. If the development includes individual free-standing dwellings that will have kerbside collections, enough space should be allowed at the kerbside adjoining the property for the placement of three 240L bins.

Council's waste service is collected from the kerbside of all public road and should only be carried out if safe and practical. The location of the collection point must be decided in consultation with Council as it can determine the ability of Council to provide the service. Refer to Section 3, Chapter 3 – Common Requirements of the KMC DCP 2020.

To minimise visual impact, obstruction of footpath/walkways and potential offensive odours, bins must be presented to the nominated collection point for servicing and returned to the waste bin storage area immediately after servicing.

If insufficient kerbside collection area is available, then Council may offer the residential component of a mixed use development:

- (a) a shared bin arrangement or
- (b) an onsite waste collection service. For all on-site waste collection services, a Waste Deed of Agreement would need to be entered into prior to the waste service commencing.
- (c) consideration should also be given to the appointment of a caretaker or appointed tenant, to ensure the bins are presented to the nominated roadside or onsite collection point for servicing and returned to the property same day after servicing.

Council's commercial waste service is only serviced from the kerbside. If insufficient kerbside collection area is available, then the commercial units may engage a private waste service provider to undertake commercial waste collection services.

8.9.2 Access for residents and commercial tenants

Residents and/or caretaker or appointed tenant, should only be required to transport the waste bins a reasonable distance to the collection point. When determining a reasonable distance, the following should be considered as a minimum:

- whether the development is for aged persons and persons with restricted mobility
- appropriate gradient of traverse (recommended maximum 1:10)
- the capacity/volume of the bins
- the compaction of waste in the bins.

The path over which bins are to be transferred from the waste bin storage area to the collection point should be free of lips, steps and other obstacles. Bins should not have to be moved through the inside of dwellings to reach the collection point.

8.9.3 Bin pads

At sites where street frontage is limited, it is good practice to include in designs a bin pad to designate bin presentation areas. Bin pads can be concreted areas or a stencilled marked area on the ground. This can help ensure waste collections are considered in the design and a clear, level and safe place is made available at the kerbside for the service to occur. Refer to Section 3, Chapter 3 – Common Requirements of the Kiama Development Control Plan 2020 for more information.

8.9.4 On-site waste collection

An on-site waste collection is when the waste service vehicle enters the development site's boundary to service waste bins at a nominated collection area. On-site collections are considered by Council when:

- there is not enough space on the kerbside to place all allocated bins
- the development cannot satisfy kerbside collection requirements
- lots of bins at the kerbside would delay collection vehicles or present unsafe conditions for vehicle traffic or collection staff
- Council deems collections at the kerbside to be unsafe such as close to schools
- the development is on an arterial road and it will be unsafe for Council's waste collection vehicles to stop.

Where on-site collections, are available to the residential component of a mixed use development only as approved by Council, Council will not enter private property with their vehicles unless indemnity against liabilities, losses, damages, and other costs arising from the on-site collection service has been provided.

To enable onsite collections developers/designers must enter into a Waste Deed of Agreement which identifies the waste service, as approved by Council, to be provided to the residential component of a mixed use development. The Waste Deed of Agreement must be signed by the property developer and Council's General Manager prior to on-site waste collection service being implemented.

Consideration should also be given to the appointment of a caretaker or appointed tenant, to ensure the bins are presented to the nominated roadside or onsite collection point for servicing and returned to the property same day after servicing.

Refer to Table 2 in Section 5.8.4 of this Guideline Typical requirements for on-site collection.

8.10 Requirements for particular commercial units

Refer to the following sections of this Guideline for;

- *Section 6.9.1 - Restaurants, food retailers, cafes, clubs, takeaways, supermarkets, shopping centres, hostels, hotels, motels, serviced apartments and institutional premises*
- *Section 6.9.2 - Butchers/delicatessens*
- *Section 6.9.3 - Offices*
- *Section 6.9.4 - Health care facilities*
- *Section 6.9.5 - Retail (non-food)*

8.11 Noise

The ground area of the pathway between the bin storage and collection area should be of a smooth finish that enables easy movement of bins and minimises noise from bin movements.

8.12 Amenity

The potential for noise, odour and visual impacts from waste storage facility and collection must be minimised.

All waste storage facilities must be adequately screened and shall not be readily visible from any public place.

To minimise visual impact, obstruction of footpath/walkways and potential offensive odours, bins must be presented to the nominated collection point for servicing and returned to the waste bin storage area immediately after servicing.

8.13 Submission requirements

i. Architectural or Landscape plans showing:

- (a) waste bin storage area/room for residential component and a separate waste bin storage area/room for the commercial component of a mixed use development. Each bin should be illustrated on the submitted plan. Typical bin dimensions are provided in Appendix B of Council's Waste Collection Services Guideline and
- (b) waste bin collection area (kerbside or onsite as approved by Council). Each bin should be illustrated on the submitted plan.
- (c) path of travel for moving waste bins between bin storage area and bin collection area.

ii. For the residential component and commercial component, an Ongoing WMP must be submitted with the DA and must include the following information:

- (a) an estimation of the weekly waste generation for garbage, recycling and food/garden waste. Waste generation rates to be used for calculations and example calculations are provided in Appendix A of this Guideline. Estimates should be provided as a volume of waste per week (in litres);
- (b) number each type of bin (garbage, recycling and food/garden waste) required by the development;
- (c) details of waste storage areas including dimensions, floor area (m²) and location;
- (d) details of waste collection arrangements including the collection point (with dimensions), floor area (m²) and location;
- (e) proposed arrangements for management and collection of waste including contact details of relevant stakeholders e.g. building managers;
- (f) proposed arrangements for the management, maintenance and cleaning of all waste management areas;
- (g) proposed arrangements for the management and collection of bulky waste;
- (h) proposed arrangements for the management of litter within the property boundaries (the area of public footpath or public area adjacent to the premises is to be maintained in a clean and tidy condition);
- (i) provisions for additional waste disposal throughout the move in phase such as bulk cardboard collection; and
- (j) proposed method to educate tenants/owners about garbage, recycling and food/garden waste management.

9.0 Industrial Development

9.1 Outline of development

Industrial developments include:

- general industry, heavy industry and light industry

Does not include: rural industry, or extractive industry or mining.

The range of industrial development uses presents an array of unique waste minimisation opportunities and management requirements. Flexibility in size and layout is often required to cater for the different needs of multiple tenants as well as future changes in use.

9.2 General requirements

Council does not offer an industrial waste collection service therefore a suitably qualified private contractor must conduct industrial waste collection.

9.3 Waste storage requirements

9.3.1 Waste bins

Temporary garbage and recycling storage area/s must be provided within each tenancy. These are to be of sufficient size to store a minimum of one day's worth of waste (this may vary depending upon size/type of development);

Between collection periods, all waste and recyclable materials generated on site must be kept in enclosed bins with securely fitting lids so the contents are not able to leak or overflow. Bins must be stored in the designated waste bin storage room/s or area/s;

9.3.2 Storage facilities and location

Development must include a designated bin storage area or room, as well as designated storage areas for industrial waste streams to be designed in accordance with the relevant waste laws/protocols. Storage areas must:

- (a) provide convenient facilities for separation of recyclable material, garbage and other waste;
- (b) provide for storage for all bins required, refer to Appendix A of this Guideline for waste generation rates. Refer to Appendix B of Council's Waste Collection Services Guideline for bin dimensions;
- (c) have a floor area at least 50% larger than the size of the bins and/or equipment;
- (d) have a smooth graded ground surface;
- (e) be well lit, built in accordance with the Building Code of Australia and well ventilated in accordance with AS 1668.4 (AS 1668.2 for buildings requiring mechanical ventilation);
- (f) be suitably enclosed, covered and maintained so as prevent polluted waste water runoff and unpleasant odour (where relevant);
- (g) be designed to prevent vermin;
- (h) provide an external hot and cold water tap connected to Sydney Water and adjacent to the waste bin storage facility;
- (i) provide a drain in the bin storage area discharging to a sewer connection (where relevant);
- (j) space is to be provided for compactors and for any other equipment necessary to manage the garbage and recycling likely to be generated on the premises. Sufficient space is also required for storage of the waste (such as cardboard boxes) prior to processing;
- (k) ensure untrained users cannot access any waste infrastructure and/or equipment (ie. compactors);
- (l) provide signage instructing users on bin type/s and appropriate material/s; and
- (m) be adaptable to changes in waste generation rates and type of waste produced.

9.3.3 Waste handling within the development

Waste compactors should be considered for large industrial developments, for more details refer to Appendix B of this Guideline. All compactors must:

- (a) be suitably sealed to prevent leaks;
- (b) be placed on a smooth and graded or bunded ground surface; and
- (c) be suitably enclosed, covered and maintained so as prevent polluted wastewater runoff.

9.3.4 On-site collection

On-site collection must be provided for industrial developments. Sites must allow for a Heavy Rigid Vehicle throughout the vehicle's entire on-site path of travel as per AS2890.2. On-site collection area must:

- (a) be designed in a way which collection vehicles do not impede access to, within or from the site for other users;

- (b) be designed in a way which collection vehicles can enter and exit the site in a forward direction. Reversing of waste vehicles onsite must only be done in the vicinity of a turning bay. Trucks will not use private driveways or carparks as a turning area; and
- (c) be designed to accommodate for all waste equipment including compactors.

9.3.5 Other requirements

The production, storage and disposal of all wastes must comply with the relevant laws and protocols. The NSW Environment Protection Authority (EPA) generally regulates the management of hazardous waste. Evidence of compliance with any specific industrial waste laws/protocols and/or relevant approvals shall be submitted with a DA.

Every development must include all specific waste requirements of any other regulatory authority were the activity is licensed or regulated by others.

Arrangements must be in place regarding the regular maintenance and cleaning of waste management facilities. Tenants and cleaners must be aware of their obligations in regards to these matters

All industrial developments which produce niche waste i.e. food waste, polystyrene, chemical waste etc are to consider recycling opportunities in their WMP.

10.0 Components addressed in this Guideline

Type of activity	Potential recyclables
Bins	To ensure the use of appropriately sized Council issued bins that meet Australian Standards.
Storage facilities	To ensure that appropriate waste storage facilities are provided for different development types, to protect local and property amenity.
Storage space	To ensure that sufficient space is provided to permit handling, storage and collection of garbage, recycling and other wastes generated in premises.
Storage location	To specify locations for waste storage areas that are appropriate to the development type and provide convenience for both residents/tenants and waste service provider.
Access	To ensure that appropriate access to waste storage facilities are provided to commercial and domestic users and to waste service providers.
Collection Point	To ideally standardise the collection point, but ensure that any variations meet specific access, location and construction requirements.
Lighting	To ensure that sufficient lighting is provided to enable users of the waste storage facility to safely access bins and dispose of waste in bins correctly.
Ventilation	To ensure sufficient ventilation is provided in waste storage facilities.
Hygiene	To ensure good hygiene is maintained including minimising potential odours, litter and dust and preventing vermin from residing in the waste containers and storage area.

Safety	To minimise the risk of vandalism and theft, design and maintain systems that do not put the safety of users or waste service providers at risk.
Cleaning	To ensure that responsibilities for cleaning of waste receptacles and storage areas are clearly defined and carried out.
On-going management	To outline responsibilities for on-going management of waste storage and collection.
Noise	To minimise noise generation.
Construction and design standards	To provide minimum standards for construction.

11.0 Document Control

Date reviewed	Date adopted	Amendment
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.

12.0 Signature

Name: Click or tap here to enter name.	Date: Click or tap to enter a date.
Signature: 	

Appendix A – Waste Generation Rates

The waste generation rates are provided as a guide only.

Industry information should be referred to for further details on commercial wastes for different commercial developments.

Low Density Residential Development

Council offers an 80L, 140L or 240L red lid garbage bin that is serviced fortnightly. Typical waste generation rates for single unit dwellings and dual occupancy dwellings are as follows:

Waste	Generation rate (L/week)
Garbage	40L, 70L or 120L
Recycling	240L
Food/Garden Waste	240L

Medium Density Residential Development

Developments less than 10 units

Council offers an 80L, 140L or 240L red lid garbage bin that is serviced fortnightly. The applicable Domestic Waste Management Charge will be applied through their annual rates. The typical waste generation rates for these unit dwellings are as follows:

Waste	Generation rate (L/week)
Garbage	40L, 70L or 120L
Recycling	240L*
Food/Garden Waste	240L*

**Note: These developments can apply to Council for an 80L or 140L size bin.*

Developments of 10 or more - Shared Bin Arrangement

For multi-unit developments, with a shared bin arrangement, the 140L Domestic Waste Management Charge will apply. The waste generation rates, per unit, are calculated as follows:

Waste	Generation rate (L/week)
Garbage	70L
Recycling	120L*
Food waste only	20L
Food/garden waste	40L

**Note: These developments can request for additional recycling bins however, must not exceed 240L per unit.*

Commercial Premises

The following instructions apply when using the data in Table 4 when calculating waste generation rates for commercial buildings.

- Data has been provided on a 'per day' calculation rate because similar premise types can operate five or seven days per week.

- This data is for garbage and recyclables. The premises may generate other waste types (for example, medical clinics in a shopping centre) and so generation rates for these should also be considered.
- This data is predominantly to be used for calculating waste and recycling generation rates as per the planning process.
- For premises that have multiple types of facilities (for example, a club that has accommodation, bars, cafes and restaurants or a residential building with a convenience store or an office building with café, gym and childcare), all such facilities must be calculated separately and then volumes generated combined when looking at the bins required, storage size and servicing frequencies.
- As several premise types generate organics (for example, butchers, seafood retailers and greengrocers), the calculations of waste generation and systems should consider if an organics system will be implemented.
- 'Per premises' data is based on the average size for the type of business (approximately 80 m²). Where the waste generation areas are larger, a pro-rata increase in waste/recycling generation should be made.
- Consideration should be given for times of peak generation such as when stock is delivered or sale times at retail stores.
- Shopping centres can have a variable tenant mix. Some have large tenancies (used by the major chains), whereas others have a broad range of small tenancies as well as offices, medical centres and a higher percentage of food outlets as opposed to general retail. Therefore, these should be calculated separately.
- The volume calculations do not take into consideration systems that may be used, such as compactors for paper/cardboard or waste.

Table 4: Calculating commercial and industrial garbage and recycling generation rates

Premise type	L/unit/day		Comments
	Garbage generation	Recycling generation	
Accommodation: non-hotel/motel	10	5	Based on the number of guest rooms with other types of facilities calculated separately. <i>Note: function rooms are based on potential bookings and restaurant data.</i>
Aged care	5	1	Per resident. Kitchen to be calculated as per restaurant. Need to determine if other services are offered. Note that other waste such as clinical waste will be generated.
Cafes	100	200	Based on 100m ² floor space
Carparks (commercial)	1	1	Based on 100m ² floor space

Childcare	20	5	Per child
Cultural and recreational services: (museums, theatres, cinemas)	5	10	Based on per 100m ² floor space for patrons (seating areas for theatre/cinema). Calculate cafes separately Calculate office areas separately.
Dry cleaning	15	5	Per premises (80m ²)
Food retail: bakeries	240	120	Per premises (80m ²)
Food retail: butchers	250	50	Per premises (80m ²) If food waste is implemented, then 150L may be transferred from waste.
Food retail: seafood	250	50	Per premises (80m ²) If food waste is implemented, then 150L may be transferred from waste.
Food retail: greengrocers	540	60	Per premises (80m ²) A higher rate needs to be considered for larger premises (based on a pro-rata increase for the 80m ² per premises. If food waste is implemented, then 150L may be transferred from waste.
Food retail			
• Other	120	80	Per premises (80m ²)
• takeaway (with sit-down area)	500	240	Per premises (80m ²) – day operation only. Note consideration must be given to the number of hours or operation.
• retail: takeaway (food preparation only)	120	60	Per premises (80m ²)
Gymnasiums	20	15	Based on 100m ² floor space
Hair and beauty	50	40	Per premises (80m ²)
Hotels/pubs (without meals provided at the bar)	50	50	Based on per premises 100m ² floor space. Calculate restaurants separately (including meals serviced at bar) as well as accommodation (use motel rate).
Licensed clubs (with gaming)	50	50	Based on per premises 100m ² floor space. Calculate restaurants separately (including meals serviced at bar) as well as accommodation (use motel rate).

Medical	20	10	Per number of doctors' consulting rooms. Need to determine if other services are offered. Note that other waste such as clinical waste will be generated.
Motels	10	5	Based on the number of guest rooms with other types of facilities calculated separately.
Offices	10	15	Based on 100m ² floor space that is used for staff activities (eg. Exclude lobby areas)
Optical	15	25	Per premises (80m ²)
Restaurants	400	280	Based on 100m ² floor space
Retail			
• chemists	20	45	Per premises
• chain stores (clothing, Manchester, etc)	5	20	Based on per 100m ² floor space. Other facilities such as cafes calculated separately.
• other non-food	50	100	Per premises
• grocery and convenience stores	120	240	Based on per 100m ² floor space
• homeware and kitchenware shops	20	120	Per premises
• newsagents and stationary shops	30	60	Per premises
• office-based (eg. Travel agents)	30	40	Based on per 100m ² floor space that is used for staff activities (eg. Exclude lobby areas)
• variety gifts stores	20	120	Per premises
Schools			
• Pre-school	10	15	Per student
• Primary	15	20	Per student
• Secondary	20	15	Per student

• Tertiary	10	10	Per student (full time equivalent). Note that other waste such as chemical waste will be generated. Need to calculate other services (eg. Food halls, student accommodation, childcare, gyms) separately.
Showrooms	10	25	Based on per 100m2 floor space
Supermarkets	240	300	Based on per 100m2 floor space. Larger supermarkets may have a number of recycling streams, so advice should be sought as to what systems will be provided.
Wholesale trade	100	50	Based on per 100m2 floor space

Table 4 has been developed using a range of data sources including literature review of other published waste generation data and the results from the *2014 NSW EPA Generator site survey of the commercial and industrial waste stream in the regulated areas of NSW* as well as comparisons to actual waste audit data from a range of commercial types

Appendix B- Waste management equipment and bins

All bins and containers allocated must conform with AS4123.1-2008 Mobile waste containers and be fitted with the correct colour lid for the waste contained as per AS4123.7-2006 Mobile waste containers: colours, markings and designation requirements.

Mobile bins

Refer to Appendix B in Council's Waste Collection Services Guideline for waste bin literage and dimensions.

Waste handling equipment

Waste handling equipment, excluding waste chutes, must conform to the manufacturers' relevant design and safety standards and meet all council requirements.

Bin lifters

If mobile bins containing waste, recycling or organics must be emptied into bulk bins, suitable equipment must be provided to eliminate the risks associated with manual lifting and emptying. This could include hydraulic, electric or gas strut bin lifters.

The lifting equipment should be fitted with safety features to prevent injury to operators and secured to prevent unauthorised use, particularly by residents.

The cost of procuring and maintaining a bin lifter, and the employment of a caretaker to operate it should be factored into the ongoing management of the development.

Bin lifters are available for a range of bin sizes.

Waste storage areas must be designed to allow enough space to store and operate the lifting equipment.

Bin transporters

In large complexes, such as where several buildings share a common basement carpark or where lots of bins need to be moved around the site from chute rooms to the main bin storage area or collection point, mechanical devices such as a small tractor or tow tug must be used. This equipment will help reduce the risk of injury from transporting bins over long distances.

Specifications of the device and location of where it will be stored must be submitted with the waste management plan.

Hitching mechanisms for 660L and 1100L bins can be fitted to enable cleaners or facilities managers to tow large bulk bins using a tow motor or tractor in small trains.

Waste compactors

Approval must be sought from the local council before committing to any system using chutes and compactors.

Waste compactors are used to compress waste to reduce its overall size and increase density. This also helps to reduce the number of bins required and the overall footprint of the bin storage area. Many types of waste compactors are available, and they vary in size. There are two types of compactor systems used in MUDs:

1. systems that require waste to be transported away from where it is collected under a chute and decanted into a compacting unit.
2. systems that compact directly into a bin sitting under the chute outlet (such as a ceiling mounted compactor). Compacting directly into bins eliminates the need to manually load waste into a compactor.

Compaction ratios into mobile bins are typically set at around 2:1. The use of higher compaction ratios is not recommended as this can damage bins, increase WHS risks and cause compacted waste to jam in the bins.

Compactors require regular maintenance and should only be installed in buildings that have a building manager, caretaker or cleaners onsite. The room containing the compactor must have restricted access to help prevent damage to the machine and injuries to residents.

Compactors should not be used for compacting mixed recycling containing glass. During compaction the glass may break resulting in glass fines that contaminate paper and cardboard. Specially designed balers and glass bottle crusher systems are more effective for compacting separated paper and cardboard or separated glass.

Consultation with Council will be required prior to the installation of compaction units to ensure the compaction of waste would not cause damage to MGBs. Early consultation with the Council's Waste Management Officer is recommended when considering installing compacting equipment.

Appendix C – Councils requirements for waste bin storage rooms/enclosures

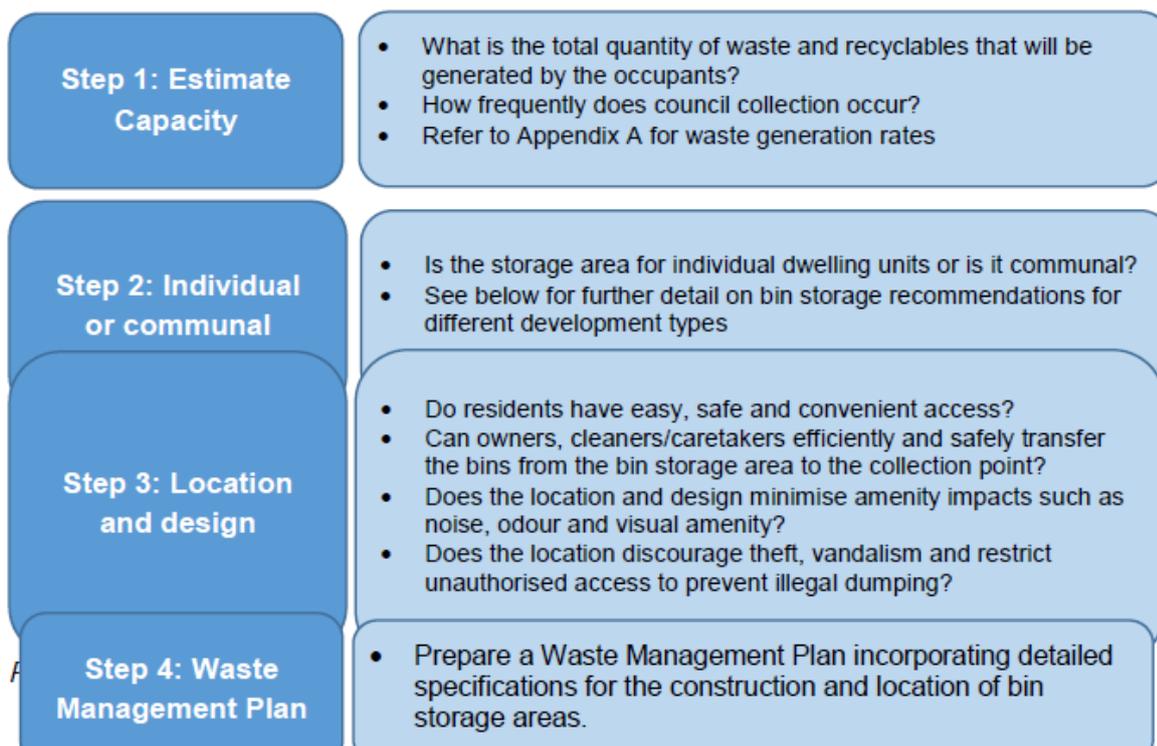
Building Code of Australia

Waste/recycling storage rooms must be constructed in accordance with the requirements of the Building Code of Australia (BCA).

Location and Appearance

It is essential to consider bin storage areas early in the design process so that they can be successfully integrated into the overall design of the development and are convenient for all users. The general guiding principle for bin storage areas is to ensure that enough space is provided within the property boundary to store the range of bins for the quantity of garbage, recycling and organics (and other materials where appropriate) likely to be generated between collections. It is also recommended that residents should not be required to walk more than a maximum distance of 30m to access the waste bin storage room/enclosure.

Figure 9: illustrates the main steps in planning for waste bin storage rooms/enclosures



Appendix D – Example Waste Management Plan



WASTE MANAGEMENT PLAN

FOR ALL WORKS ABOVE \$5,000
APPENDIX I OF WASTE GUIDELINES 2021

Submit this plan to Council as part of your Development Application.

The purpose of this plan is to anticipate and estimate the types and volumes of waste materials generated from this development.

For waste being reused onsite, consider how the materials intend to be reused. For waste removed offsite, nominate a licensed waste facility or engage a waste contractor. When materials are recycled or disposed, keep a record of the receipts.

To comply with Development Application (DA) conditions, a Waste Compliance Certificate Application is required prior to issue of Occupation Certificate. Supporting documentation (receipts from recycling/disposal during the development) must be attached to that application.

PROPERTY/SITE DETAILS								
DA number (if known):				Date:	04/02/2021			
Site address:	58 Example Street, Kiama NSW 2533							
Type of development: (please tick)	<input type="checkbox"/>	Subdivision	<input checked="" type="checkbox"/>	Demolition	<input type="checkbox"/>	Dwelling alterations & additions	<input checked="" type="checkbox"/>	Single dwelling
	<input type="checkbox"/>	Secondary dwelling	<input type="checkbox"/>	Duplex	<input type="checkbox"/>	Dual occupancy	<input type="checkbox"/>	Townhouse
	<input type="checkbox"/>	Villa	<input type="checkbox"/>	Swimming pool (in ground)	<input type="checkbox"/>	Swimming pool (above ground)	<input type="checkbox"/>	Multi-unit development
	<input type="checkbox"/>	Mixed-use development	<input type="checkbox"/>	Commercial	<input type="checkbox"/>	Shop fit out	<input type="checkbox"/>	Industrial
Brief description of proposal:	Single dwelling, concrete slab, driveway, timber fencing and retaining wall.							
Buildings or other structures currently onsite:	Old metal shed (to be demolished)							
Builders name/company (if known):	Mr Fix It							
Builders email:	2 Fix Road, Fixville NSW 2555			Builders phone:	0412 345 678			

APPLICANT DETAILS	
Name/Company:	Mr & Mrs Jones
Postal address:	123 Example Avenue, Gerringong NSW 2534
Email:	example@google.com
Phone:	0419 999 999

PRIVACY & PERSONAL INFORMATION PROTECTION NOTICE

The personal details requested on this form are being collected by Kiama Municipal Council (KMC) to verify waste compliance from the above Development Application and will only be used to verify waste compliance. KMC is the agency that holds the information and access is restricted to KMC Officers. While the supply of information is voluntary, we may not be able to proceed with this Development Application if this information is not provided. You have a right to apply for access to or for correction of your personal information. For further information, please see KMC's Privacy Management Plan available on Council's website or contact us on 02 4232 0444 or email council@kiama.nsw.gov.au

All correspondence General Manager PO Box 75 Kiama NSW 2533 11 Manning Street Kiama NSW 2533
Contacts P (02) 4232 0444 E council@kiama.nsw.gov.au W www.kiama.nsw.gov.au ABN 22 379 679 108



RESPECT · INNOVATION · INTEGRITY · TEAMWORK · EXCELLENCE

Your council, your community

ESTIMATED MATERIALS				
Material	Estimated total weight (in tonnes)	Disposed to landfill (in tonnes) <i>Specify contractor and/or landfill facility</i>	Recycled offsite (in tonnes) <i>Specify contractor and/or recycling facility</i>	Reused onsite (in tonnes) <i>Specify method of reuse</i>
Bricks	5t		3t – XYZ Contractor	2t - crushed and used in landscaping
Tiles	10t	6t – Dunmore Recycling and Waste Disposal Depot	4t - XYZ Contractor	
Concrete	4t	4t – Huntley Heritage, Avondale Road Dapto		
Timber	5t		3t – XYZ Contractor	2t – kept onsite for firewood
Metals	1t		1t – picked up by Steel Recyclers	
Plasterboard	3t	3t – Dunmore Recycling and Waste Disposal Depot		
Garden waste	60t		40t – Minnamurra Waste and Recycling Facility	20t – mulched onsite for landscaping
Mixed waste/ landfill	2t	2t – Dunmore Recycling and Waste Disposal Depot	n/a	n/a
Asbestos	8t	8t – XYZ Contractor for asbestos removal and disposal	n/a	n/a
Excavated fill	200t	150t – Huntley Heritage, Avondale Road Dapto	Reused offsite (in tonnes) <i>Provide address of property fill to be taken to (if known)</i>	50t – use onsite to back fill behind retaining wall

Appendix E – Example Ongoing Waste Management Plan



ONGOING WASTE MANAGEMENT PLAN

APPENDIX J OF WASTE GUIDELINES 2021

This plan is intended for multi-unit developments and mixed-use developments.
Submit this plan to Council as part of your Development Application.
The purpose is to provide details of the proposed ongoing waste management for this development.

PROPERTY/SITE DETAILS			
DA number (if known):		Date:	04/02/2021
Site address:	58 Example Street, Kiama NSW 2533		
Type of development: (please tick)	<input checked="" type="checkbox"/> Multi-unit residential development	<input type="checkbox"/> Mixed-use development	
Brief description of proposal:	Demolition of a single dwelling and construction of a residential unit block		
Number of residential units:	16		
Number of non-residential units:			
Builders name/company (if known):	Mr Fix It	Builders phone:	0412 345 678
Builders email:	mrfixit@email.com.au		

APPLICANT DETAILS	
Name/Company:	ABC Developers
Postal address:	77 Smith Road, Developers Hill NSW 2555
Email:	abcdevelopers@email.com.au
Phone:	0419 999 999

PRIVACY & PERSONAL INFORMATION PROTECTION NOTICE

The personal details requested on this form are being collected by Kiama Municipal Council (KMC) to verify waste management from the above Development Application and will only be used to verify waste management. KMC is the agency that holds the information and access is restricted to KMC Officers. While the supply of information is voluntary, we may not be able to proceed with the Development Application if this information is not provided. You have a right to apply for access to or for correction of your personal information. For further information, please see KMC's Privacy Management Plan available on Council's website or contact us on 02 4232 0444 or email council@kiama.nsw.gov.au

Waste collection arrangements	
Frequency of service	Garbage is fortnightly, recycling is weekly and food waste is weekly. All garden waste will be taken away by garden contractor.
Location of collection point	On the kerbside directly in front of 58 Example Street, Kiama.
Detail how Waste Services vehicle will access the collection point	The bins are accessible from the kerbside for the waste truck to service the bins efficiently.
Hygiene and amenity	
Arrangements for washing bins and waste bin storage area	Hot and cold waste taps in waste bin room connected to Sydney Water.
Ventilation of waste bin storage area	Adequate ventilation has been provided in the waste bin storage room. Refer to design plan B2.
Arrangements for minimising noise (by residents and Waste Services staff)	The surface area of the path to the waste bin room is a smooth surface to minimise noise. The waste bin storage room is constructed from double brick to further minimise noise resulting from bins being used and moved by residents/caretaker.
Preventions for vermin entering waste bin storage areas	Doors are well fitting and waste emptied regularly.
Safety	
Measures for protecting the waste bin storage area and bins from theft or vandalism	Waste bin storage room and Household Bulky Waste storage area is locked daily.
Fire controls in waste bin storage area	Fire extinguishers and a water tap with hose will be installed in the waste bin room.

How to contact Council

Post

CEO

Kiama Municipal Council
PO Box 75
Kiama NSW 2533

Telephone

+61 (02) 4232 0444

Facsimile

+61 (02) 4232 0555

Online

Email: council@kiama.nsw.gov.au

Website: www.kiama.nsw.gov.au

Office hours

Our Administration Building located at
11 Manning Street Kiama is open 8.45 am to 4.15 pm
Monday to Friday (excluding public holidays)



KIAMA MUNICIPAL COUNCIL
your council, your community