MODEL WASTE NOT DCP CHAPTER 2008

A Site Waste Minimisation and Management Chapter for Consolidated Development Control Plans

Please note this document contains text box notes to council planners that need to be deleted prior to adoption of the document as a council policy or Chapter in a DCP. The notes to council planners highlight areas that may need to be modified to ensure the document is consistent with the format of other council policies.

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Appendices

Note to Council Planners: The Appendices contain supporting information that needs to be readily available to applicants. This can be achieved in several ways, including:

- adopting the supporting information as Appendices
- supplying the extra information wherever the DCP is available. For example, see the webpage for Blacktown City Council's Site Waste Minimisation and Management DCP.

1 Introduction

1.1 Name of Chapter

This Chapter is titled Site Waste Minimisation and Management. It is known colloquially as the Waste Not DCP, as it is based on an early document (1996) when consolidated development control plans (DCPs) were not required and DCPs often dealt with one issue.

1.2 Site Waste Minimisation and Management

Waste and resource consumption is a major environmental issue and a priority for all levels of government within Australia. This is particularly the case as landfill sites become scarce and the environmental and economic costs of waste generation and disposal rise. Government and society alike are exposed to the issue of managing the increasingly large volumes of waste generated by our society.

Sustainable resource management and waste minimisation has emerged as a priority action area and a key in the quest for Ecologically Sustainable Development (ESD). Critical actions in this regard include the following (moving from most desirable to least desirable):

- avoiding unnecessary resource consumption
- recovering resources for reuse
- recovering resources for recycling or reprocessing
- disposing of residual waste (as a last resort).

The building and construction industry in particular is a major contributor to waste, much of which is still deposited to landfill. The implementation of effective waste minimisation strategies has the potential to significantly reduce these volumes.

Effective waste planning and management can also benefit the builder/developer. Some of the benefits of good waste planning and management include:

- reduced costs
- improved workplace safety
- enhanced public image
- compliance with legislation such as the *Protection of the Environment Operation Act 1997* that requires waste to only be transported to a place that can lawfully accept it.

1.3 Purpose of this Chapter

1.3.1 Aims

This Chapter aims to facilitate sustainable waste management within the Local Government Area in a manner consistent with the principles of ESD.

1.3.2 Objectives

The objectives in pursuit of sustainable waste management include:

Waste minimisation

- To minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources.
- To minimise demolition waste by promoting adaptability in building design and focussing upon end of life deconstruction.
- To encourage building designs, construction and demolition techniques in general which minimise waste generation.
- To maximise reuse and recycling of household waste and industrial/commercial waste.

Waste management

- To assist applicants in planning for sustainable waste management, through the preparation of a site waste minimisation and management plan.
- To assist applicants to develop systems for waste management that ensure waste is transported and disposed of in a lawful manner.
- To provide guidance in regards to space, storage, amenity and management of waste management facilities.
- To ensure waste management systems are compatible with collection services.
- To minimise risks associated with waste management at all stages of development.

1.4 Types of Development Covered

This Chapter applies to the following types of development that may only be carried out with development consent or a complying development certificate.

- demolition
- construction
- change in use

1.5 The Development Approval Process

1.5.1 Development that Requires Consent

When determining a development application under Section 79C of the *Environmental Planning and Assessment Act, 1979* (as amended) (The Act), Council must consider the contents of this Chapter.

Compliance with the minimum provisions herein does not, however, necessarily mean that an application will be approved, as each application will be considered on its merits.

It is accepted that optimum waste minimisation and management will necessitate site specific and sometimes unique solutions. As a result, Council may approve on its merits an application that proposes a variation to the controls, provided it can be demonstrated that the objectives herein will be achieved.

1.5.2 Complying Development

The Council or an accredited certifier must have regard to the provisions of this Chapter in issuing a complying development certificate.

1.5.3 Exempt Development

Preparation of a Site Waste Minimisation and Management Plan (SWMMP) is not required for exempt development (as defined by Council). However, persons carrying out exempt development are encouraged to minimise the generation of waste in the construction and operation of any such use or activity and deal with any waste generated in accordance with the objectives herein.

1.5.4 State Significant Development/Major Projects

The Major Projects State Environmental Planning Policy establishes the Minister (or by delegation the Department of Planning) as the consent authority for development categorised as Major Projects/State Significant Development.

Council will liaise with the Department of Planning (representing the Minister for Planning) to ensure appropriate outcomes in respect of waste minimisation and management.

The minimum requirements for such forms of development will be compliance with the aims and objectives of this Chapter.

1.5.5 Departures from the Controls of this Chapter

Council may approve variations to the provisions herein in accordance with the principles of merit-based assessment.

Any request for variation to the provisions must be in writing and comprise part of the application. The request shall clearly demonstrate that:

- the aims and objectives are met, and
- compliance with the relevant provisions is unreasonable or unnecessary in the circumstances of the case.

1.6 Enforcement

This Chapter is enforced through the development assessment and approval process of Section 79 of The Act.

Subsequent non-compliance with approvals is pursued under Section 121B, Part 6 of the Act, by way of the issue of relevant orders requiring compliance and subsequent legal action for non-compliance.

1.7 The Responsible Authority

Council or an accredited certifier (as defined under the *Environmental Planning and Assessment Amendment Act, 1979*) is responsible for enforcing the observance of the provisions of this Chapter.

1.8 Use and Interpretation of this Chapter

This section outlines how to interpret and apply the provisions herein for the planning and designing of site waste minimisation and management.

1.8.1 Abbreviations

A list of abbreviations has been adopted. The relevant abbreviations are detailed below.

BCA	Building Code of Australia
CC	Construction Certificate
DA	Development Application
DCP	Development Control Plan
EPA	Environment Protection Authority
ESD	Ecologically Sustainable Development
SEE	Statement of Environmental Effects
SMA	Sydney Metropolitan Area
The Act	*Environmental Planning and Assessment Act, 1979* (as amended)
SWMMP	Site Waste Minimisation and Management Plan

1.8.2 Summary Guide to Using This Chapter

This Chapter shall be generally used as follows:

1. **Read Section 1 – Introduction**
   This section provides a background to waste minimisation and management, details aims and objectives of waste minimisation and management associated with local development and the application of the Chapter.

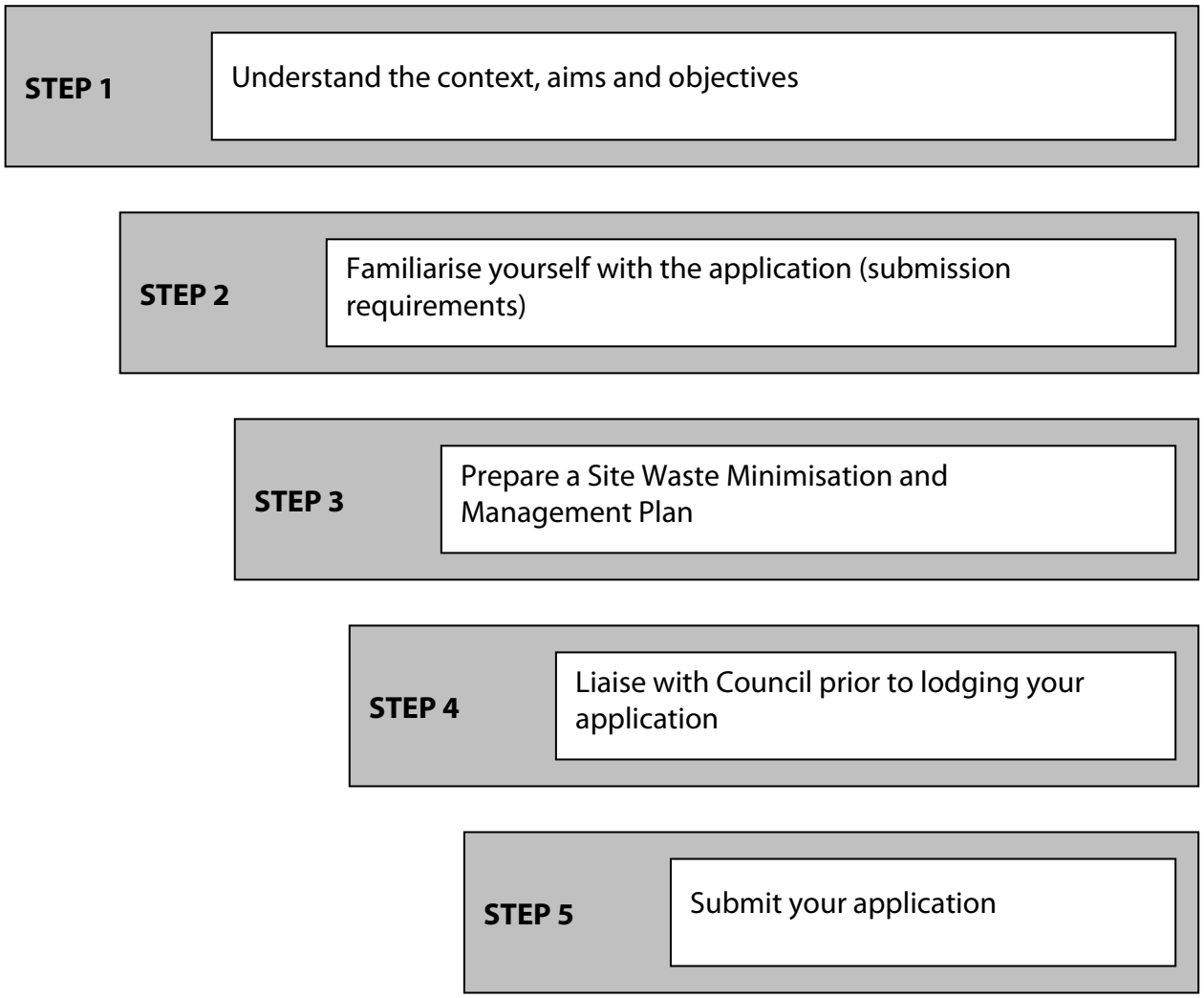
2. **Read Section 2 – Submission Requirements**
   This section provides specific advice in respect of information to accompany submission of a Development Application (DA) and highlights the requirements of a Site Waste Minimisation and Management Plan.

3. **Read Section 3 and 4 – Assessment Criteria/Controls**
   These sections detail the criteria/controls Council will consider in assessing the adequacy of the Site Waste Minimisation and Management Plan, in addressing the principles of sustainable waste management. Section 3 details general criteria and controls for all demolition and all constructions, while Section 4 adds additional criteria and controls for specific types of constructions.

4. **Read the Appendices — Further Information**
   This section provides useful information in interpreting this Chapter, understanding the waste minimisation and management environment and documenting the central submission requirement – a Site Waste Minimisation and Management Plan.

1.8.3 Steps in the Preparation and Submission of an Application

The actions involved in preparing and submitting a development application, which satisfactorily addresses waste minimisation and management obligations are summarised in the following chart.



2 Submission/Application Requirements

2.1 Documentation to be Submitted to Comply with the Requirements of this Chapter

All applications for development, including demolition, construction and the ongoing use of a site/premise, must be accompanied by a Statement of Environmental Effects (SEE). This Statement is to include a SWMMP as the central document of compliance with this Chapter's requirements.

In addition to submission of a SWMMP (as part of the SEE), the waste management facilities proposed as part of the development, shall be clearly illustrated on the plans of the proposed development, accompanying the development application (DA).

2.2 Site Waste Minimisation and Management Plans

A Site Waste Minimisation and Management Plan (SWMMP) outlines measures to minimise and manage waste generated during:

- demolition
- construction
- ongoing use of the site/premises.

In doing so, the SWMMP nominates:

- volume and type of waste and recyclables to be generated
- storage and treatment of waste and recyclables on site
- disposal of residual waste and recyclables
- operational procedures for ongoing waste management once the development is complete.

The SWMMP highlights the method of recycling or disposal and the waste management service provider.

Appendix A provides a template for the compilation of a SWMMP.

2.3 Submission of a SWMMP

2.3.1 Development Generally

A SWMMP must be submitted for all types of development including demolition, construction and ongoing use of the site/premises; including local development, integrated development and state significant/major project development (as defined by the *Environmental Planning and Assessment Act and Amendments*). More details are required in SWMMPs for larger and more complex developments. The amount of supporting information and diagrams also increases.

Where a DA is required, with or without the need for a Construction Certificate (CC), a SWMMP must be submitted at development application stage. Where only a CC is required, a SWMMP shall be submitted at the construction certificate stage. Maximum waste minimisation and management benefits are achieved when the SWWP is considered from the earliest stages of the development. It is for this reason that a SWMMP is required with the earliest approval application.

Note to Council Planners: An alternative method is to require the majority of the SWMMP at DA stage, but accept page 3 regarding construction waste to be submitted with the CC when it is more likely that the builder has been appointed. A benefit of this staged SWMMP approach can be closer involvement of the builder and building certifier/inspector in formulation, approval and monitoring of SWMMPs. However discussion with council's building section should be undertaken before adopting this alternative.

2.3.2 Complying Development

A Site Waste Minimisation and Management Plan (SWMMP) is required for development identified as Complying Development in accordance with Council's adopted Exempt and Complying Development criteria. Site waste minimisation and management must be carried out in accordance with an approved SWMMP, and dockets retained on site to show to where any construction and or demolition waste has been transported.

2.3.3 Exempt Development

A SWMMP is not required in association with Exempt Development carried out in accordance with Council's adopted Exempt and Complying Development criteria.

However, a person carrying out exempt development should seek to minimise the generation of waste in the construction and operation of any such use or activity and deal with any waste generated in accordance with the objectives herein.

2.4 Waste/Recycling Generation Rates

In the absence of project specific calculations, the rates specified in **Appendix B Waste/Recycling Generation Rates** and Council's current rate of provision of services to residential properties can be used to inform the compilation of a SWMMP.

3 Assessment Criteria/Controls for All Development

3.1 Demolition of Buildings or Structures

3.1.1 General

The demolition stage provides great scope for waste minimisation. Proponents are actively encouraged to consider possible adaptive reuse opportunities of existing buildings/structures, reuse of materials or parts thereof.

3.1.2 Aim

The principal aim of managing this activity is to maximise resource recovery and minimise residual waste from demolition activities.

3.1.3 Objectives

- Optimise adaptive reuse opportunities of existing building/structures.
- Maximise reuse and recycling of materials.
- Minimise waste generation.
- Ensure appropriate storage and collection of waste.
- Minimise the environmental impacts associated with waste management.
- Avoid illegal dumping.
- Promote improved project management.

3.1.4 Controls/Requirements

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the demolition application.

Note to Council Planners: For the first bullet point in 3.1.4 you may wish to specify whether demolition requires a DA or CC.

- Pursue adaptive reuse opportunities of buildings/structures.
- Identify all waste likely to result from the demolition, and opportunities for reuse of materials. Refer to **Figure 1**.
- Facilitate reuse/recycling by using the process of 'deconstruction', where various materials are carefully dismantled and sorted.
- Reuse or recycle salvaged materials onsite where possible.
- Allocate an area for the storage of materials for use, recycling and disposal (giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation, and access and handling requirements).

- Provide separate collection bins or areas for the storage of residual waste.
- Clearly 'signpost' the purpose and content of the bins and storage areas.
- Implement measures to prevent damage by the elements, odour and health risks, and windborne litter.
- Minimise site disturbance, limiting unnecessary excavation.

When implementing the SWMMP the applicant must ensure:

- Footpaths, public reserves, street gutters are not used as places to store demolition waste or materials of any kind without Council approval.
- Any material moved offsite is transported in accordance with the requirements of the *Protection of the Environment Operations Act (1997)*.
- Waste is only transported to a place that can lawfully be used as a waste facility.
- Generation, storage, treatment and disposal of hazardous waste and special waste (including asbestos) is conducted in accordance with relevant waste legislation administered by the EPA and relevant Occupational Health and Safety legislation administered by WorkCover NSW.
- Evidence such as weighbridge dockets and invoices for waste disposal or recycling services are retained.

Note: Materials that have an existing reuse or recycling market should not be disposed of in a landfill. **Figure 1** provides a list of some potential reuse/recycling options. Reuse and recycling opportunities are decreased when asbestos is not carefully removed and segregated from other waste streams.

Material	Reuse/recycling potential
Concrete	Reused for filling, levelling or road base
Bricks and Pavers	Can be cleaned for reuse or rendered over or crushed for use in landscaping and driveways
Roof Tiles	Can be cleaned and reused or crushed for use in landscaping and driveways
Untreated Timber	Reused as floorboards, fencing, furniture, mulched or sent to second hand timber suppliers
Treated Timber	Reused as formwork, bridging, blocking and propping, or sent to second hand timber suppliers
Doors, Windows, Fittings	Sent to second hand suppliers
Glass	Reused as glazing or aggregate for concrete production
Metals (fittings, appliances and wiring)	Removal for recycling
Synthetic Rubber (carpet underlay)	Reprocessed for use in safety devices and speed humps
Significant Trees	Relocated either onsite or offsite
Overburden	Power screened and used as topsoil
Garden Waste	Mulched, composted
Carpet	Can be sent to recyclers or reused in landscaping
Plasterboard	Removal for recycling, return to supplier

Figure 1: Examples of demolition materials and potential reuse/recycling opportunities
(based on the *Combined Sydney Regional Organisation of Councils Model DCP 1997*)

3.2 Construction of Buildings or Structures

3.2.1 General

Attention to design, estimating of materials and waste sensitive construction techniques and management practices can achieve significant rewards in managing waste.

3.2.2 Aim

The principal aim of managing this activity is to maximise resource recovery and minimise residual waste from demolition activities.

Note to Council Planners: The objectives of this section are those for demolition however the order has been changed to reflect the main opportunities for waste management.

3.2.3 Objectives

- Maximise reuse and recycling of materials.
- Minimise waste generation.
- Ensure appropriate collection and storage of waste.
- Minimise the environmental impacts associated with waste management.
- Avoid illegal dumping.
- Promote improved project management.
- Optimise adaptive reuse opportunities of existing building/structures.

3.2.4 Controls / Requirements

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the application.

  Note: The type of construction determines whether a development application, construction certificate or complying development statement is required. In all cases a SWMMP must be completed. Maximum waste minimisation and management benefits are achieved when the SWMMP is considered from the earliest stages of the development.
- Estimate volumes of materials to be used and incorporate these volumes into a purchasing policy so that the correct quantities are purchased. For small-scale building projects see the rates in **Appendix B Waste/Recycling Generation Rates** for a guide.
- Identify potential reuse/recycling opportunities of excess construction materials.
- Incorporate the use of prefabricated components and recycled materials.
- Arrange for the delivery of materials so that materials are delivered 'as needed' to prevent the degradation of materials through weathering and moisture damage.
- Consider organising to return excess materials to the supplier or manufacturer.
- Allocate an area for the storage of materials for use, recycling and disposal (considering slope, drainage, location of waterways, stormwater outlets and vegetation).
- Arrange contractors for the transport, processing and disposal of waste and recycling. Ensure that all contractors are aware of the legal requirements for disposing of waste.
- Promote separate collection bins or areas for the storage of residual waste.
- Clearly 'signpost' the purpose and content of the bins and storage areas.
- Implement measures to prevent damage by the elements, odour and health risks, and windborne litter.
- Minimise site disturbance and limit unnecessary excavation.
- Ensure that all waste is transported to a place that can lawfully be used as a waste facility.

Retain all records demonstrating lawful disposal of waste and keep them readily accessible for inspection by regulatory authorities such as council, DECC or WorkCover NSW.

4 Development-Specific Assessment Criteria/Controls

Note to Council Planners: The aims, objectives and control/requirements in this section for 4.1 Single Dwelling, 4.2 Multi – Unit, 4.3 Commercial, 4.4 Mixed Use and 4.5 Industrial are in addition to the general criteria in section 3. Within section 4, many of the aims and objectives are similar for the different types of land use however, the repetition allows the individual land uses to be more easily separated into different Chapters if this better suits Council's existing DCP structure.

4.1 Single Dwelings, Semi-Detached and Dual Occupancy

4.1.1 General

The design of waste and recyclables storage areas within the home and property affect ease of use, amenity, the movement and handling of waste for the life of the development.

4.1.2 Aim

To encourage source separation of waste, reuse, and recycling by ensuring appropriate storage and collection facilities for waste, and quality design of waste facilities.

4.1.3 Objectives

- Maximise reuse and recycling of materials.
- Minimise waste generation.
- Ensure appropriate collection and storage of waste.
- Minimise the environmental impacts associated with waste management.
- Avoid illegal dumping

4.1.4 Controls/Requirements

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the application.

  Note: The type of construction determines whether a development application, construction certificate or complying development statement is required. In all cases a SWMMP must be completed. Maximum waste minimisation and management benefits are achieved when the SWMMP is considered from the earliest stages of the development.

- Plans submitted with the SWMMP must show:
  - The location of an indoor waste/recycling cupboard (or other appropriate storage space) for each dwelling.

  - The location of an onsite waste/recycling storage area for each dwelling, that is of sufficient size to accommodate Council's waste, recycling and garden waste bins. Indicative bin sizes are shown in **Appendix C Indicative Bin Sizes.**
  - An identified onsite location for a compost container.
  - An identified kerbside collection point for the collection and emptying of Council's waste, recycling and garden waste bins.
- Waste containers are to be stored in a suitable location so as to avoid vandalism, nuisance and adverse visual impacts.
- A designated area for composting that should not impact on adjoining properties.
- Where possible, the waste/recycling storage area should be located in the rear yard and minimise the distance of travel to the collection point.
- The waste storage area is to be easily accessible and have unobstructed access to Council's usual collection point.
- There should be sufficient space within the kitchen (or an alternate location) for the interim storage of waste and recyclables.
- The placement of bins for collection at the nominated collection point should ensure adequate traffic and pedestrian safety is maintained.

  Note: It is the responsibility of dwelling occupants to move bins to the identified collection point no earlier than the evening before collection day and to then return the bins to their storage area no later than the evening of collection day. Bins are to remain in their on-site storage area at all other times.

4.2 Multi-Unit Dwellings (Town Houses, Flats and Villas)

4.2.1 General

The design of waste and recycling storage areas within the unit and property affects ease of use, amenity, movement and handling of waste for the life of the development. Multiple households within the property increase challenges with regard to waste volumes, ease of access and operation of waste sorting and removal systems. Resources such as the *Better Practice Guide for Waste Management in Multi-Unit Dwellings* should be used to inform design of multi-unit dwellings.

Note to Council Planners: The *Better Practice Guide for Waste Management in Multi-Unit Dwellings* gives detailed information about waste recycling/storage rooms and facilities. The Guide was substantially reviewed in 2007 and is available on the Department of Environment and Climate Change NSW website (www.environment.nsw.gov.au). Further updates will be published as information from social research and waste stream audits become available.

4.2.2 Aim

To encourage source separation of waste, reuse, and recycling by ensuring appropriate storage and collection facilities for waste, and quality design of waste facilities.

4.2.3 Objectives

- Ensure appropriate waste storage and collection facilities.
- Maximise source separation and recovery of recyclables.
- Ensure waste management systems are as intuitive for occupants as possible and are readily accessible.
- Ensure appropriate resourcing of waste management systems, including servicing.
- Minimise risk to health and safety associated with handling and disposal of waste and recycled material, and ensure optimum hygiene.
- Minimise adverse environmental impacts associated with waste management.
- Discourage illegal dumping by providing on site storage, and removal services.

4.2.4 Controls/Requirements

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the development application.
- Plans submitted with a development application must show:
    - The location of an indoor waste/recycling cupboard (or other appropriate storage space) for each dwelling.
    - The location of individual waste/recycling storage areas (such as for townhouses and villas) or a communal waste/recycling storage room(s) able to accommodate Council's waste, recycling and garden waste bins.
    - The location of any garbage chute(s) and interim storage facilities for recyclable materials.
    - The location of any service rooms (for accessing a garbage chute) on each floor of the building.
    - The location of any waste compaction equipment.
    - An identified location for individual compost containers or communal compost container.
    - An identified collection point for the collection and emptying of Council's waste, recycling and garden waste bins.
    - The path of travel for moving bins from the storage area to the identified collection point (if collection is to occur away from the storage area).

- The on-site path of travel for collection vehicles (if collection is to occur on-site), taking into account accessibility, width, height and grade.

- Systems should be designed to maximise source separation and recovery of recyclables.
- Waste management systems should be designed and operated to prevent the potential risk or injury or illness associated with the collection, storage and disposal of wastes.

The following minimum collection and storage facilities shall be provided:

- Each dwelling unit should be provided with an indoor waste/recycling cupboard (or other appropriate storage space) for the interim storage of a minimum one day's garbage and recycling generation.
- Residential flat buildings must include communal waste/recycling storage facilities in the form of a waste/recycling storage room (or rooms) designed in accordance with **Appendix D Waste Recycling/Storage Rooms in Multi-Unit Dwellings** and the *Better Practice Guide for Waste Management in Multi-Unit Dwellings*.
- Multi-unit housing in the form of townhouses and villas must include either individual waste/recycling storage areas for each dwelling or a communal facility in the form of a waste/recycling storage room (or rooms) designed in accordance with **Appendix D Waste Recycling/Storage Rooms in Multi-Unit Dwellings** and the *Better Practice Guide for Waste Management in Multi-Unit Dwellings*.
- Space must be provided for an individual compost container for each dwelling (such as in townhouse and villa developments) or for a communal compost container; the siting of which will have regard to potential amenity impacts.
- The waste/recycling storage area(s) or room(s) must be of a size that can comfortably accommodate separate garbage, recycling and garden waste containers at the rate of Council provision.
- For multi-storey developments that include ten or more dwellings, a dedicated room or caged area must be provided for the temporary storage of discarded bulky items which are awaiting removal. The storage area must be readily accessible to all residents and must be located close to the main waste storage room or area.

- The following location and design criteria shall apply to collection and storage facilities:
  - In townhouse and villa developments with individual waste/recycling storage areas, such areas should be located and designed in a manner which reduces adverse impacts upon neighbouring properties and upon the appearance of the premises.
  - There must be an unobstructed and Continuous Accessible Path of Travel (as per *Australian Standard 1428 Design for Access and Mobility - 2001*) from the waste/recycling storage area(s) or room(s) to:

- the entry to any Adaptable Housing (as per *Australian Standard 4299 Adaptable Housing - 1995*)
- the principal entrance to each residential flat building
- the point at which bins are collected/emptied.

In instances where a proposal does not comply with these requirements, Council will consider alternative proposals that seek to achieve a reasonable level of access to waste/recycling storage area(s) or room(s).

- Communal waste storage areas should have adequate space to accommodate and manoeuvre Council's required number of waste and recycling containers.
- Each service room and storage area must be located for convenient access by users and must be well ventilated and well lit.
- Where site characteristics, number of bins and length of street frontage allow, bins may be collected from a kerbside location. In instances where kerbside bin collection is not appropriate, bins must be collected onsite. Bins that are collected onsite are to be collected either from their usual storage point or from an onsite temporary holding area located inside the property boundary and close to a property entrance.
- Where bins cannot be collected from a kerbside location or from a temporary holding area located immediately inside the property boundary, the development must be designed to allow for on-site access by garbage collection vehicles (of dimensions detailed at **Appendix E Garbage Truck Dimensions for Residential Waste Collection**). In these instances, the site must be configured so as to allow collection vehicles to enter and exit the site in a forward direction and so that collection vehicles do not impede general access to, from or within the site. Access driveways to be used by collection vehicles must be of sufficient strength to support such vehicles.

  Note: As a minimum requirement for collection vehicle access, Council will require indemnity against claims for loss or damage to the pavement or other driving surface. Council may also require indemnity against liabilities, losses, damages and any other demands arising from any on-site collection service. In all cases, a hazard assessment will need to be conducted prior to Council agreeing to undertake the service.

- Should a collection vehicle be required to enter a property, access driveways and internal roads must be designed in accordance with *Australian Standard 2890.2 Parking Facilities – Off-Street Commercial Vehicle Facilities – 2002*.
- If Council waste collectors and/or waste collection vehicles are required to enter a site for the purpose of emptying bins, then site specific arrangements must be in place.
- If bins need to be moved from normal storage areas to a different location for collection purposes, it is the responsibility of agents of the owners' corporation to move the bins to the collection point no earlier than the evening before collection day and to then return the bins to their storage areas no later than the evening of collection day. Bins are to remain in their on-site storage areas at all other times.
- Residents should have access to a cold water supply for the cleaning of bins and

the waste storage areas. Storage areas should be constructed and designed to be weather proof and easy to clean, with wastewater discharged to sewer.

- The design and location of waste storage areas/facilities should be such that they compliment the design of both the development and the surrounding streetscape.
- Developments containing four or more storeys should be provided with a suitable system for the transportation of waste and recyclables from each storey to waste storage/collection areas.
- Garbage chutes must be designed in accordance with **Appendix F Garbage Chutes**, the *Building Code of Australia* and *Better Practice Guide for Waste Management in Multi-Unit Dwellings*. Garbage chutes are not suitable for recyclable materials and must be clearly labelled to discourage improper use. Alternative interim disposal facilities for recyclables should be provided at each point of access to the garbage chute system.

- The following management responsibilities shall be addressed:
  - Agents of the owners' corporation must take responsibility for the management of waste and recyclable materials generated upon the site. Arrangements must be in place in regards to the management, maintenance and cleaning of all waste/recycling management facilities.

4.3 Commercial Developments and Change of Use (Shops, Offices, Food Premises, Hotels, Motels, Licensed Clubs, Education Establishments, Entertainment Facilities and Hospitals)

4.3.1 General

A range of non-residential uses present 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.

Note: Storage and disposal of liquid waste, such as oils and chemicals, are not covered by this Site Waste Minimisation and Management Chapter.

4.3.2 Aim

To ensure new developments and changes to existing developments are designed to maximise resource recovery (through waste avoidance, source separation and recycling); and to ensure appropriate well-designed storage and collection facilities are accessible to occupants and service providers.

4.3.3 Objectives

- Ensure appropriate waste storage and collection facilities.
- Maximise source separation and recovery of recyclables.

- Ensure waste management systems are as intuitive for occupants as possible and readily accessible to occupants and service providers.
- Ensure appropriate resourcing of waste management systems, including servicing.
- Minimise risk to health and safety associated with handling and disposal of waste and recycled material and ensure optimum hygiene.
- Minimise adverse environmental impacts associated with waste management.
- Discourage illegal dumping by providing on site storage, and removal services.

4.3.4 Controls/Requirements

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the application.

  Note: The nature of the development or change in use will determine whether a development application or construction certificate is required. In all cases a SWMMP must be completed. Maximum waste minimisation and management benefits are achieved when the SWMMP is considered from the earliest stages of the development.

- Plans submitted with the SWMMP must show:
  - The location of the designated waste and recycling storage room(s) or areas, sized to meet the waste and recycling needs of all tenants.
  - The location of temporary waste and recycling storage areas within each tenancy. These are to be of sufficient size to store a minimum of one day's worth of waste.
  - An identified collection point for the collection and emptying of waste, recycling and garden waste bins.
  - The path of travel for moving bins from the storage area to the identified collection point (if collection is to occur away from the storage area).
  - The on-site path of travel for collection vehicles (if collection is to occur on-site).

- There must be convenient access from each tenancy to the waste/recycling storage room(s) or area(s). There must be step-free access between the point at which bins are collected/emptied and the waste/recycling storage room(s) or area(s).
- Every development must include a designated waste/recycling storage area or room(s) (designed in accordance with **Appendix G Commercial/Industrial Waste and Recycling Storage Areas**).
- Depending upon the size and type of the development, it may be necessary to include a separate waste/recycling storage room/area for each tenancy.
- All commercial tenants must keep written evidence on site of a valid contract with a licensed waste contractor for the regular collection and disposal of the waste and recyclables that are generated on site.

- 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/recycling storage room(s) or area(s).
- Arrangements must be in all parts of the development for the separation of recyclable materials from general waste. Arrangements must be in all parts of the development for the movement of recyclable materials and general waste to the main waste/recycling storage room/area. For multiple storey buildings, this might involve the use of a goods lift.
- The waste/recycling storage room/area must be able to accommodate bins that are of sufficient volume to contain the quantity of waste generated (at the rate described in **Appendix B Waste/Recycling Generation Rates)** between collections.
- The waste/recycling storage room/area must provide separate containers for the separation of recyclable materials from general waste. Standard and consistent signage on how to use the waste management facilities should be clearly displayed.
- The type and volume of containers used to hold waste and recyclable materials must be compatible with the collection practices of the nominated waste contractor.
- Waste management facilities must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system.
- Where possible, waste/recycling containers should be collected from a rear lane access point. Consideration should be given to the time of day at which containers are collected so as to minimise adverse impacts upon residential amenity, pedestrian movements and vehicle movements.
- The size and layout of the waste/recycling storage room/area must be capable of accommodating reasonable future changes in use of the development.
- A waste/recycling cupboard must be provided for each and every kitchen area in a development, including kitchen areas in hotel rooms, motel rooms and staff food preparation areas. Each waste/recycling cupboard must be of sufficient size to hold a minimum of a single day's waste and to hold separate containers for general waste and recyclable materials.
- Premises that discharge trade wastewater must do so only in accordance with a written agreement from the local sewer authority. In the Sydney Metropolitan Area (SMA) this is Sydney Water. Sydney Water defines trade wastewater as "any liquid, and any substance contained in it, which may be produced at the premises in an industrial and commercial activity, but does not include domestic wastewater (e.g. from hand-basins, showers and toilets)."
- 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.
- 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.

- Any garbage chutes must be designed in accordance with the requirements of **Appendix F Garbage Chutes**, the *Building Code of Australia* and *Better Practice Guide for Waste Management in Multi-Unit Dwellings*. Garbage chutes are not suitable for recyclable materials and must be clearly labelled to discourage improper use.

4.4 Mixed Use Developments (Residential/Non-Residential)

4.4.1 General

Where residential and commercial land uses occur within the one building or development waste management will necessitate a balancing of variable demands, including preservation of residential amenity.

4.4.2 Aim

To ensure new developments and changes to existing development are designed to maximise resource recovery (through waste avoidance, source separation and recycling) and to ensure appropriate, well-designed storage and collection facilities are accessible to occupants and service providers.

4.4.3 Objectives

- Ensure appropriate waste storage and collection facilities.
- Maximise source separation and recovery of recyclables.
- Ensure waste management facilities are safely and easily accessible to occupants and service providers.
- Ensure appropriate resourcing of waste management systems, including servicing.
- Minimise risk to health and safety associated with handling and disposal of waste and recycled material and ensure optimum hygiene.
- Minimise adverse environmental impacts associated with waste management.
- Discourage illegal dumping by providing on site storage, and removal services.

4.4.4 Controls/ Requirements

A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the application.

The controls at Section 4.2.4 Multi-Unit Dwellings apply to the residential component of mixed-use development.

The controls at Section 4.3.4 Commercial Developments apply to the non-residential component of mixed-use development.

Mixed Use development must incorporate separate and self-contained waste management systems for the residential component and the non-residential component.

In particular, the development must incorporate separate waste/recycling storage rooms/areas for the residential and non-residential components. Commercial tenants must be prevented (via signage and other means), from using the residential waste/recycling bins and vice versa.

The residential waste management system and the non-residential waste management system must be designed so that they can efficiently operate without conflict. Conflict may potentially occur between residential and non-residential storage, collection and removal systems, and between these systems and the surrounding land uses. For example, collection vehicles disrupting peak residential and commercial traffic flows or causing noise issues when residents are sleeping.

4.5 Industrial

4.5.1 General

Industrial developments typically produce a diverse range of waste products. Some of these waste products may be hazardous and require compliance with established laws/protocols that are additional to this Chapter. Other waste products are similar in nature to commercial and domestic waste streams. Mixing waste products limits potential reuse and recycling opportunities and may distribute toxic material through a larger volume of wastes.

4.5.2 Aim

To ensure new developments and changes to existing developments are designed to maximise resource recovery (through waste avoidance, source separation and recycling) and to ensure appropriate, well-designed storage and collection facilities are accessible to occupants and service providers.

4.5.3 Objectives

- Ensure appropriate waste storage and collection facilities.
- Maximise source separation and recovery of recyclables.
- Ensure waste management facilities are as intuitive for occupants as possible and readily accessible to occupants and service providers.
- Ensure appropriate resourcing of waste management systems, including servicing.
- Minimise risk to health and safety associated with handling and disposal of waste and recycled material and ensure optimum hygiene.
- Minimise adverse environmental impacts associated with waste management.
- Discourage illegal dumping by providing on site storage, and removal services.

4.5.4 Controls/Requirements

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the application.

- Plans submitted with the SWMMP must show:
    - The location of designated waste and recycling storage room(s) or areas sized to meet the waste and recycling needs of all tenants. Waste should be separated into at least 4 streams, paper/cardboard, recyclables, general waste, industrial process type wastes.
    - The on-site path of travel for collection vehicles.
- Evidence of compliance with any specific industrial waste laws/protocols. For example, those related to production, storage and disposal of industrial and hazardous wastes as defined by the *Protection of the Environment Operations Act 1997*.
- There must be convenient access from each tenancy and/or larger waste producing area of the development to the waste/recycling storage room(s) or area(s). There must be step-free access between the point at which bins are collected/emptied and the waste/recycling storage room(s) or area(s).
- Every development must include a designated general waste/recycling storage area or room(s) (designed in accordance with **Appendix G Commercial/Industrial Waste & Recycling Storage Areas**), as well as designated storage areas for industrial waste streams (designed in accordance with specific waste laws/protocols).
- Depending upon the size and type of the development, it might need to include separate waste/recycling storage room/area for each tenancy and/or larger waste producing areas.
- All tenants must keep written evidence on site of a valid contract with a licensed waste contractor for the regular collection and disposal of all the waste streams and recyclables which are generated on site.
- Between collection periods, all waste/recyclable materials generated on site must be kept in enclosed bins with securely fitted lids so the contents are not able to leak or overflow. Bins must be stored in the designated waste/recycling storage room(s) or area(s).
- Arrangements must be in place in all parts of the development for the separation of recyclable materials from general waste. Arrangements must be in place in all parts of the development for the movement of recyclable materials and general waste to the main waste/recycling storage room/area.
- The waste/recycling storage room/areas must be able to accommodate bins that are of sufficient volume to contain the quantity of waste generated between collections.
- The type and volume of containers used to hold waste and recyclable materials must be compatible with the collection practices of the nominated waste contractor.
- Waste management storage rooms/areas must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system.
- A waste/recycling cupboard must be provided for each and every kitchen area in the development. Each waste/recycling cupboard must be of sufficient size to hold a

minimum of a single day's waste and to hold separate containers for general waste and recyclable materials.

- Premises that discharge trade wastewater must do so only in accordance with a written agreement from the local sewer authority. In the Sydney Metropolitan Area this is Sydney Water. Sydney Water defines trade wastewater as 'any liquid, and any substance contained in it, which may be produced at the premises in an industrial and commercial activity, but does not include domestic wastewater (e.g. from hand-basins, showers and toilets).'
- 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.
- Production, storage and disposal of hazardous wastes (such as contaminated or toxic material or products) require particular attention. The appropriate laws and protocols should be observed.

Appendix A: Site Waste Minimisation and Management Plan Template

Applicant and Project Details (All Developments)	
Applicant Details	
Application No.	
Name	
Address	
Phone number(s)	
Email	
Project Details	
Address of development	
Existing buildings and other structures currently on the site	
Description of proposed development	
This development achieves the waste objectives set out in the DCP. The details on this form are the provisions and intentions for minimising waste relating to this project. All records demonstrating lawful disposal of waste will be retained and kept readily accessible for inspection by regulatory authorities such as council, DECC or WorkCover NSW.	
Name	
Signature	
Date	

Demolition (All Types of Developments)

Address of development: _____

Refer to Section 3.1 of the DCP for objectives regarding demolition waste.

most favourable ← least favourable

	Reuse	Recycling	Disposal	
Type of waste generated	**Estimate Volume (m^3) or Weight (t)**	**Estimate Volume (m^3) or Weight (t)**	**Estimate Volume (m^3) or Weight (t)**	**Specify method of on site reuse, contractor and recycling outlet and /or waste depot to be used**
Excavation material				
Timber (specify)				
Concrete				
Bricks/pavers				
Tiles				
Metal (specify)				
Glass				
Furniture				
Fixtures and fittings				
Floor coverings				
Packaging (used pallets, pallet wrap)				
Garden organics				
Containers (cans, plastic, glass)				
Paper/cardboard				
Residual waste				
Hazardous/special waste e.g. asbestos (specify)				
Other (specify)				

Construction (All Types of Developments)

Address of development: _____

Refer to Section 3.2 of the DCP for objectives regarding construction

most favourable ← least favourable

	Reuse	Recycling	Disposal	
Type of waste generated	**Estimate Volume (m^3) or Weight (t)**	**Estimate Volume (m^3) or Weight (t)**	**Estimate Volume (m^3) or Weight (t)**	**Specify method of on site reuse, contractor and recycling outlet and/or waste depot to be used**
Excavation material				
Timber (specify)				
Concrete				
Bricks				
Tiles				
Metal (specify)				
Glass				
Plasterboard (offcuts)				
Fixtures and fittings				
Floor coverings				
Packaging (used pallets, pallet wrap)				
Garden organics				
Containers (cans, plastic, glass)				
Paper/cardboard				
Residual waste				
Hazardous/special waste (specify)				

Ongoing Operation (Residential, Multi Unit, Commercial, Mixed Use and Industrial)

Address of development: _____

Show the total volume of waste expected to be generated by the development and the associated waste storage requirements.

	Recyclables		Compostables	Residual waste*	Other
	Paper/ cardboard	Metals/ plastics/glass			
Amount generated (L per unit per day)					
Amount generated (L per development per week)					
Any reduction due to compacting equipment					
Frequency of collections (per week)					
Number and size of storage bins required					
Floor area required for storage bins (m^2)					
Floor area required for manoeuvrability (m^2)					
Height required for manoeuvrability (m)					

* Current "non-recyclables" waste generation rates typically include food waste that might be further separated for composting.

Construction Design (All Types of Developments)
Outline how measures for waste avoidance have been incorporated into the design, material purchasing and construction techniques of the development (refer to Section 3.2 of the DCP):
Materials
Lifecycle
Detail the arrangements that would be appropriate for the ongoing use of waste facilities as provided in the development. Identify each stage of waste transfer between residents' units/commercial tenancies and loading into the collection vehicle, detailing the responsibility for and location and frequency of, transfer and collection.

Plans and Drawings (All Developments)

The following checklists are designed to help ensure SWMMPs are accompanied by sufficient information to allow assessment of the application.

Drawings are to be submitted to scale, clearly indicating the location of and provisions for the storage and collection of waste and recyclables during:

- demolition
- construction
- ongoing operation.

Demolition

Refer to Section 3.1 of the DCP for specific objectives and measures.
Do the site plans detail/indicate:

	Tick Yes
Size and location(s) of waste storage area(s)	
Access for waste collection vehicles	
Areas to be excavated	
Types and numbers of storage bins likely to be required	
Signage required to facilitate correct use of storage facilities	

Construction

Refer to Section 3.2 of the DCP for specific objectives and measures.
Do the site plans detail/indicate:

	Tick Yes
Size and location(s) of waste storage area(s)	
Access for waste collection vehicles	
Areas to be excavated	
Types and numbers of storage bins likely to be required	
Signage required to facilitate correct use of storage facilities	

Ongoing Operation

Refer to Section 4 of the DCP for specific objectives and measures.
Do the site plans detail/indicate:

	Tick Yes
Space	
Size and location(s) of waste storage areas	
Recycling bins placed next to residual waste bins	
Space provided for access to and the manoeuvring of bins/equipment	
Any additional facilities	
Access	
Access route(s) to deposit waste in storage room/area	
Access route(s) to collect waste from storage room/area	
Bin carting grade	
Location of final collection point	
Clearance, geometric design and strength of internal access driveways and roads	
Direction of traffic flow for internal access driveways and roads	
Amenity	
Aesthetic design of waste storage areas	
Signage – type and location	
Construction details of storage rooms/areas (including floor, walls, doors, ceiling design, sewer connection, lighting, ventilation, security, wash down provisions etc)	

Appendix B: Waste/Recycling Generation Rates

Construction Waste

'Rule of Thumb' for renovations and small home building

- Timber 5-7% of material ordered
- Plasterboard 5-20% of material ordered
- Concrete 3-5% of material ordered
- Bricks 5-10% of material ordered
- Tiles 2-5% of material ordered

Source: *Waste Planning Guide for Development Application, Inner Sydney Waste Board, 1998*

Ongoing Operation

Premises type	Waste generation	Recyclable material generation
Backpackers' Hostel	40L/occupant space/week	20L/occupant space/week
Boarding House, Guest House	60L/occupant space/week	20L/occupant space/week
Food premises: Butcher Delicatessen Fish Shop Greengrocer Restaurant, Café Supermarket Takeaway food shop	80L/100m^2 floor area/day 80L/100m^2 floor area/day 80L/100m^2 floor area/day 240L/100m^2 floor area/day 10L/1.5m^2 floor area/day 240L/100m^2 floor area/day 80L/100m^2 floor area/day	Variable Variable Variable 120L/100m^2 floor area/day 2L/1.5m^2 floor area/day 240L/100m^2 floor area/day Variable
Hairdresser, Beauty Salon	60L/100m^2 floor area/week	Variable
Hotel, Licensed Club, Motel	5L/bed space/day 50L/100m^2 bar area/day 10L/1.5m^2 dining area/day	1L/bed space/day 50L/100m^2 bar area/day 50L/100m^2 dining area/day
Offices	10L/100m^2 floor area/day	10L/100m^2 floor area/day
Shop less than 100m^2 floor area Shop greater than 100m^2 floor area	50L/100m^2 floor area/day 50L/100m^2 floor area/day	25L/100m^2 floor area/day 50L/100m^2 floor area/day
Showroom	40L/100m^2 floor area/day	10L/100m^2 floor area/day
Multi-Unit Dwellings[1]	80L/unit/week	40L/unit/week

Sources: Adapted from *Waverley Council Code for the Storage and Handling of Waste*.
[1] Appendix A, *Better Practice Guide For Waste Management In Multi-Unit Dwellings 2007*

Appendix C: Indicative Bin Sizes

Note to Council Planners: Consider modifying this page to describe the types of bins and services provided in the local area, as well as larger bins sizes that may be common in multi unit dwellings and commercial premises.

Bin type	Height	Depth	Width
80 Litre Bin	870mm	530mm	450mm
120 Litre Bin	940mm	560mm	485mm
140 Litre Bin	1065mm	540mm	500mm
240 Litre Bin	1080mm	735mm	580mm

These dimensions are only a guide and differ slightly according to manufacturer, if bins have flat or dome lids and are used with different lifting devices.

Appendix D: Waste Recycling/Storage Rooms in Multi–Unit Dwellings

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

- Waste/recycling storage rooms must be integrated into the design of the overall development. It is preferable that such rooms be located behind the front building line. Wherever possible, the room should be in a basement location within the main building envelope (rather than a separate stand-alone structure). Materials and finishes visible from outside should be similar in style and quality to the external materials used in the rest of the development.
- Waste/recycling storage rooms must be located and designed in a manner that reduces adverse impacts upon the inhabitants of any dwellings on the site and upon neighbouring properties. The location and design of the room should minimise adverse impacts associated with:
  - the proximity of the room to any dwellings
  - the visibility of the room
  - noise generated by any equipment located within the room
  - noise generated by the movement of bins into and out of the room
  - noise generated by collection vehicles accessing the site; and
  - odours emanating from the room.

Size

- Waste/recycling storage rooms must be of adequate size to comfortably accommodate all waste and recycling bins associated with the development.

Layout

The gradient of waste/recycling storage room floors and the gradient of any associated access ramps must be sufficiently level so that access for the purpose of emptying containers can occur in accordance with WorkCover NSW Occupational Health and Safety requirements.

Within waste/recycling storage rooms, containers used for the storage of recyclable materials should be kept separate from (but close to) general waste containers — so that the potential for contamination of recyclable materials is minimised.

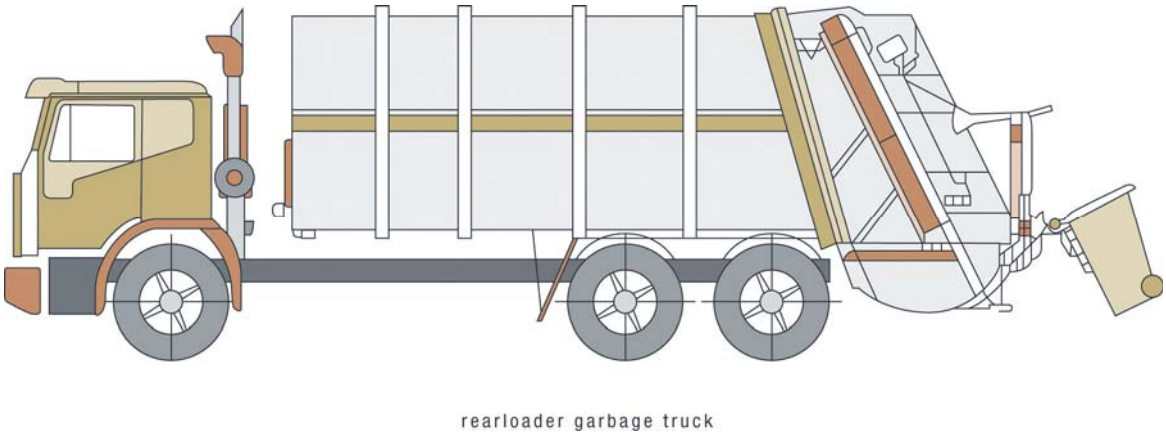
Appendix E: Garbage Truck Dimensions for Residential Waste Collection

This page includes information regarding the dimensions of garbage trucks that are typically used for the collection of residential waste. Developments that require Council garbage trucks to enter the site for the collection of residential waste must be designed to accommodate on-site truck movement.

Requirements regarding vehicle turning circles and driveway width/gradient are contained in *Australian Standard 2890.2 2002/Planning Facilities — off street commercial vehicles*.

It is recommended that an applicant speak with Council's Waste Services Coordinator in regards to the design of development proposals that involve garbage trucks entering the site. Services will not be provided where there are undue risks.

Typical Council Garbage Truck used for Domestic Waste Collection	
Length overall	8.0 metres
Width overall	2.5 metres
Operational height	4.3 metres
Travel height	4.3 metres
Weight (vehicle and load)	22.5 tonnes
Weight (vehicle only)	13 tonnes
Turning Circle	25.0 metres



Example of a Council garbage truck.
Source of diagram: *Better Practice Guide for Waste Management in Multi-Unit Dwellings, DECC 2008.*

Appendix F: Garbage Chutes

Garbage chute design

- Garbage chutes must be constructed in accordance with the requirements of the *Building Code of Australia (BCA)*.
- Garbage chutes must be located and insulated in a manner that reduces noise impacts.
- Chutes, service openings and charging devices must be constructed of material (such as metal) that is smooth, durable, impervious, non-corrosive and fire resistant.
- Chutes, service openings and charging devices must be capable of being easily cleaned.
- Chutes must be cylindrical and should have a diameter of at least 500mm.
- There must not be any bends (or sections of reduced diameter) in the main shaft of the chute.
- Internal overlaps in the chute must follow the direction of waste flow.
- Chutes must deposit rubbish directly into a bin or compactor located within a waste/recycling storage room.
- A cut-off device must be located at or near the base of the chute so that the bottom of the chute can be closed when the bin or compacting device at the bottom of the chute is withdrawn or being replaced.
- The upper end of a chute should extend above the roofline of the building.
- The upper end of a chute should be weather protected in a manner that doesn't impede the upward movement of air out of the chute.

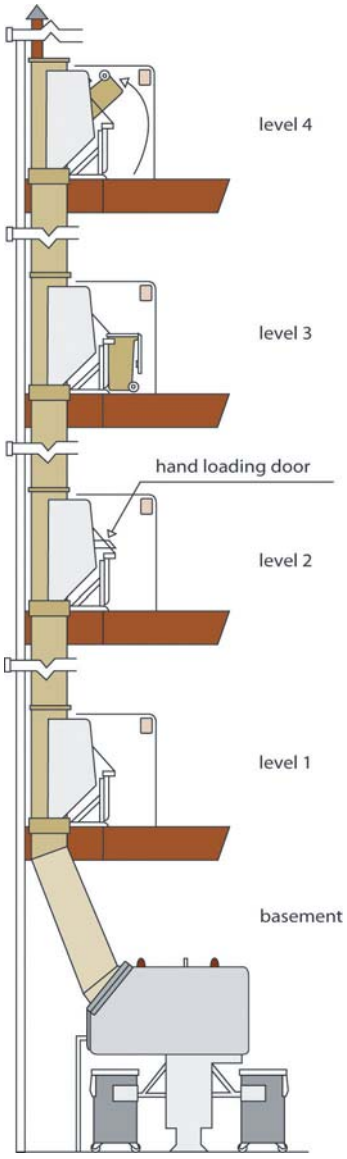
Garbage chute service room design

- The service opening (for depositing rubbish into the main chute) on each floor of the building must be located in a dedicated service room.
- The charging device for each service opening must be self-closing and must not project into the main chute.
- Branches connecting service openings to the main chute are to be no more than 1m long.
- Each service room must include containers for the storage of recyclable materials. Signage regarding the materials that can be recycled should be displayed near these containers.
- Each service room must be located for convenient access by users and must be well ventilated and well lit.
- The floors, walls and ceilings of service rooms must be finished with smooth, durable materials that are capable of being easily cleaned.

- Service rooms must include signage that clearly describes the types of materials that can be deposited into the garbage chute and the types of materials which should be deposited into recycling bins.

Management

- Garbage chutes are not to be used for the disposal of recyclable materials. Signage to this effect should be displayed near service openings.
- Arrangements must be in place for the regular maintenance and cleaning of garbage chutes and any associated service rooms, service openings and charging devices.
- Arrangements must be in place for the regular transferral of recyclable materials (which are stored in service rooms) to the main waste/recycling storage room.



Example of a garbage chute system.

Source: *Better Practice Guide for Waste Management in Multi-Unit Dwellings, DECC, 2008.*

Appendix G: Commercial/Industrial Waste and Recycling Storage Areas

Building Code of Australia

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

Location and appearance

- Waste/recycling storage areas must be integrated into the design of the overall development. Materials and finishes that are visible from outside should be similar in style and quality to the external materials used in the rest of the development.
- Waste/recycling storage areas must be located and designed in a manner that reduces adverse impacts upon neighbouring properties and the streetscape. The location and design of the areas should minimise adverse impacts associated with:
  - the proximity of the area to dwellings
  - the visibility of the area
  - noise generated by any equipment located within the area
  - noise generated by the movement of bins into and out of the area
  - noise generated by collection vehicles accessing the site; and
  - odours emanating from the area.

Size

- Waste/recycling storage areas must be of adequate size to comfortably accommodate all waste and recycling bins associated with the development.
- Waste/recycling storage areas must be able to accommodate separate general waste bins and recycling bins which are of sufficient volume to contain the quantity of waste generated (at the rate described in **Appendix B**) between collections.

Layout

- The gradient of waste/recycling storage area floors and the gradient of any associated access ramps must be sufficiently level so that access for the purpose of emptying containers can occur in accordance with WorkCover NSW Occupational Health and Safety requirements.

- Within waste/recycling storage areas, containers used for the storage of recyclable materials should be kept separate from (but close to) general waste containers — so that the potential for contamination of recyclable materials is minimised.

Access: waste/recycling collection

- The development must be designed to allow access by collection vehicles used by the nominated waste contractor. Wherever possible, the site must be configured to allow collection vehicles to enter and exit the site in a forward direction and so collection vehicles do not impede general access to, from and within the site. Access driveways to be used by collection vehicles must be of sufficient strength to support such vehicles.
- Servicing arrangements for the emptying of bins must be compatible with the operation of any other loading/unloading facilities on-site.
- Access for the purpose of emptying waste/recycling storage containers must be able to occur in accordance with WorkCover NSW Occupational Health and Safety requirements.

Access: general

- In commercial development, public buildings and industrial development, there must convenient access from each tenancy to the waste/recycling storage area(s). There must be step-free access between the point at which bins are collected/emptied and the waste/recycling storage area(s).
- Arrangements must be in place so that the waste/recycling storage area is not accessible to the general public.
- Vermin must be prevented from entering the waste/recycling storage area.

Surfaces

- Waste/recycling storage areas must have a smooth, durable floor and must be enclosed with durable walls/fences that extend to the height of any containers which are kept within.

Doors/gates

- Doors/gates to waste/recycling storage areas must be durable. There must be a sign adjacent to the door/gate that indicates that the door/gate is to remain closed when not in use. All doors/gates are to be openable from both inside and outside the storage area and must be wide enough to allow for the easy passage of waste/recycling containers.

Services

- Waste/recycling storage areas must be serviced by hot and cold water provided through a centralised mixing valve. The hose cock must be protected from the waste containers and must be located in a position that is easily accessible when the area is filled with waste containers.
- The floor must be graded so that any water is directed to a sewer authority approved drainage connection located upon the site. In the SMA this is Sydney Water.

Signage

- Waste/recycling storage areas must include signage that clearly describes the types of materials that can be deposited into recycling bins and general garbage bins.

Management

- Arrangements must be in place for the regular maintenance and cleaning of waste/recycling storage areas. Waste/recycling containers must only be washed in an area which drains to a sewer authority approved drainage connection. In the SMA this is Sydney Water.
- The *Better Practice Guide for Waste Management in Multi-Unit Dwellings* gives detailed information about waste recycling/storage rooms and facilities. The Guide was substantially reviewed in 2007 and is available on the Department of Environment and Climate Change NSW website (www.environment.nsw.gov.au). Further updates will be published as further information from social research and waste stream audits becomes available.