Millennium Design Consultants Pty Ltd
Architects - Nominated Registered Architecht: J.Hibri-6757

ABN 25 095 439 839
MEMBER
THE ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS

42 Dolphin Crescent
Avalon Beach NSW 2107
Ph: 99745007
Fax: 99745004
Email: mdc@millenniumdesign.com.au

WASTE MANAGEMENT PLAN

for

Mixed Use Development

at

30 DAY STREET
COLYTON

Prepared by:
Jamal Hibri
Registered Architect
For the applicant: Infiniti 3
December 2017

Introduction

0.1 Introduction:

This Waste Management Plan (WMP) is to accompany a development application at 30 Day Street, Colyton. The development application is for a proposed Alteration & Additions to an existing neighbourhood shops for the addition of 24 boarding rooms.

Millennium Design Consultants Pty Ltd have been directed by the applicant to prepare a Waste Management Plan to be submitted with the Development Application for the project.

This WMP aims to set out how the proposed mixed use development will operate based on the plans prepared by Millennium Design Consultants listed below.

0.2 Material relied on for this assessment includes:
Architectural drawings by Millennium Design Consultants Pty Ltd:

- 21705 – DA-01 Site Analysis 21 December 2017
- 21705 - DA-02 Basement Floor Plan dated 21 December 2017
- 21705 - DA-03 Ground Floor Plan dated 21 December 2017
- 21705 - DA-04 First Floor Plan dated 21 December 2017
- 21705 - DA-05 Roof Plan dated 21 December 2017
- 21705 - DA-11 Elevations dated 21 December 2017

The above listed documents are included in Appendix A

The proposed Boarding House will contain 24 self-contained boarding rooms equipped with ensuite and kitchenette each. The rooms are designed for no more than two people per room. The proposed boarding rooms include two accessible bedrooms designed for people with disability. Sixteen of the twenty four rooms are provided with private balconies. The boarding rooms will also be provided with the following facilities:

- A common room containing a TV, couches, dining table, and chairs and kitchenette facility
- out-door communal open space in the form of a terrace directly connected to the common room
- a caretaker office
- a cleaner's room
- a communal unisex accessible toilet with a shower facility
- common storage room in the basement
- ground floor garbage bin storage area
- five parking spaces, two of which are accessible spaces
- five motorcycle parking spaces
- five bicycle parking spaces

A caretaker will be appointed to operate and take care of the Boarding House. A room is dedicated & provided to the caretaker to live-in on site. This allows the caretaker to be on site and manage the waste and recyclables for the residential component of the development.

0.3 Objectives

The objectives of this WMP is to comply with Section C5 of the City of Penrith DCP. The objectives as listed in this Section of the DCP are:

- *a) To facilitate sustainable waste management within the City of Penrith in accordance with the principles of Ecologically Sustainable Development;*
- *b) To manage waste in accordance with the 'Waste Hierarchy' to:*
  i) Avoid producing waste in the first place;
  ii) Minimise the amount of waste produced;
  iii) Re-use items as many times as possible to minimise waste;
  iv) Recycle once re-use options have been exhausted; and
  v) Dispose of what is left, as a last resort, in a responsible way to appropriate waste disposal facilities;
- *c) To assist in achieving Federal and State Government waste minimisation targets as set out in the Waste Avoidance and Resource Recovery Act 2001 and NSW Waste Avoidance and Resource Recovery Strategy 2007;*
- *d) To minimise the overall environmental impacts of waste by:*
  i) Encouraging development that facilitates ongoing waste avoidance and complements waste services offered by both Council and/or private contractors;
  ii) Requiring on-site source separation and other design and siting standards which assist waste collection and management services offered by Council and/or the private sector;
  iii) Encouraging building designs and construction techniques that minimise waste generation;
  iv) Maximising opportunities to reuse and recycle building and construction materials as well as other wastes in the ongoing use of a premise; and
  v) Reducing the demand for waste disposal.

0.4 The Caretaker

The Boarding House will be managed and operated by an appointed caretaker according to the following:

- the caretaker will work as an employee to the owner of the Boarding House to achieve the objectives set out in this waste management plan
- the caretaker will reside within the building in the allocated caretaker room
- the caretaker will ensure that waste and recyclables are properly contained within the bins within the waste area. Bins are to be taken to the street for collection as required
- the caretaker will ensure that any rubbish left around the site is properly disposed of
- copies of the waste management plan will be available with the caretaker to provide guidance for the management of the waste & recycling material produced during the operation of the boarding house

0.5 Siting and Design of Waste Bin Storage Areas for the Boarding House

Section C5.2.1 of the City of Penrith DCP has specific controls related to the siting & design of the waste bin storage area. The controls listed in this Section are:

1) This section provides design requirements for waste bin collection/storage areas for residential development referred to in this Chapter.

2) Waste Bin Storage Area Size:

a) The development must provide a waste bin storage area that is of sufficient size to accommodate all required waste bins associated with the development. This is to be achieved through the provision of a communal waste storage area. For larger developments, multiple waste bin storage areas may be required.

b) All waste streams must be catered for, including general waste, bulky waste and recyclable waste.

c) Sufficient space must be provided onsite to ensure that adequate room is provided to manoeuvre, clean and maintain all waste and recycling bins for the development.

d) Sufficient space must be provided onsite for any required equipment to manage waste, waste bins (including washing and cleaning) and the waste bin storage area.

3) Waste Bin Storage Area Location:

- *The waste bin storage area is to be located within the basement footprint of the residential flat building developments.*
- *The waste bin storage area is to be located on the ground level for multi-unit housing developments.*
- *The waste bin storage area is to be located where its use and operation will not adversely impact the amenity of development occupants in terms of noise and odour.*
- *If the waste bin storage area is to be used as the collection point (for multi-unit housing), it must be located and designed to meet the applicable requirements for servicing.*

4) Waste Bin Area Layout

- *The layout of the waste bin storage area is to be designed so that the area is free from obstructions so not to restrict the movement and servicing of the bins.*
- *An aisle space of 1.2m is required to access and manoeuvre the bins.*
- *In determining the layout and size of the waste bin storage area, consideration should be given to whether waste bins are required to be rotated. If waste bins are to be rotated, additional room size to aisle width will be required to manoeuvre bins.*

5) Waste Bin Storage Area Construction

a) Waste Bin Storage Rooms are to be designed so that they can be constructed to the following:

i) Floors must be constructed of concrete at least 75mm thick and graded and drained to a Sydney Water approved drainage fitting.

ii) The floors must be finished to a smooth even surface.

iii) The walls must be constructed of solid impervious material.

iv) The ceilings must be finished with a smooth faced non-absorbent material capable of being cleaned.

v) Walls, ceilings and floors must be finished in a light colour.

vi) It is to be provided with an adequate supply of hot and cold water mixed through a centralised mixing valve with hose cock.
vii) A close fitting and self-closing door openable from within the room.
viii) Must be constructed to prevent the entry of vermin.
ix) Be provided with adequate light and ventilation. The light source must be through controlled light switches located both outside and inside the room.

The siting & the size of the waste & recycling room have been determined during the design process of preparing the development application.

A Prelodgement meeting was held in council on the 15th of August 2017.

Preliminary drawings were submitted to council for discussions during the Prelodgement meeting. In its letter of response to the Prelodgement meeting, Council provided the following feedback regarding the proposed waste management provisions:

Site management
Site management is to be addressed including accumulation and disposal of waste (particularly bulky waste), landscaping maintenance, and management of communal areas, security and car parking.

Comment: Site management related to the accumulation of bulk waste has been addressed by providing a Bulk Waste Room as per council requirements. During the design refinement after the receipt of the Prelodgement letter, council officers were contacted by phone & revised drawings were emailed to council showing the location & size of the proposed Bulk Waste Room. We received verbal confirmation from council that the siting & size of the proposed Bulk Waste Room is acceptable

You have advised it is not your intention to have a site manager/caretaker. Please address how the capacity of the boarding house is going to be managed such that 20 or more lodgers will not be reached (the trigger for house manager and associated requirements under the Affordable Rental Housing SEPP). Please note that where a manager is appointed on site, there are additional requirements under the ARH SEPP including provisions of private open space and car parking for the associated unit

Comment: The architectural drawings submitted to council for the Prelodgement meeting sheet number DA04 Dated July 2017 clearly nominated Room 16 as Caretaker room. Accordingly, it is proposed to appoint a caretaker to manage the boarding house as discussed in the submitted Operational Plan of Management.

Waste Management
A Waste Management Plan is to be provided addressing waste produced during the demolition, construction and operational phases of the development. It should address waste quantities, storage locations and removal. Vehicular access for collection also needs to be addressed. I note that Council's Waste Services section has more prescriptive requirements for multi-unit developments

Comment: This WMP attempts to address all the requirements of council regarding the waste produced during the demolition, construction and operational phases of the development. It also addresses waste quantities, storage locations and removal. It is not proposed for council's garbage truck to enter the site for waste or recycling collection. The waste management room is located within 10 from street frontage where the bins will be presented on collection day.

Waste Requirements

Councils Waste Services department has reviewed the application PL170075 BH located at Lot 151A, DP 26030, 30 Day Street, Colyton. _

The current proposal will consist of 24 boarding house dwellings. The waste collection infrastructure and collection proposal is not supported or approved in its current state.

Waste On-site infrastructure

Under the revised Waste DCP section 5.2.2.3 Multi Dwelling Housing is defined as comprising of four or more dwellings. This requires all developments under this definition to provide a communal waste storage bay and bulky household goods bay. Amended plans will need to address this provision.

Amended Plans

To facilitate to incorporation of on-site waste collection infrastructure for the residential and commercial components of the development, waste services is willing to review any preliminary sketches/designs throughout. Please email joshua.romeo@penrith.city or call on 4732 7634.

Architectural Plans

The submitted plans do not allow for an in-depth review of the waste infrastructure to be conducted. The amended plans will need to be submitted with accompanying elevations, external plans and section plans.

Comment: The waste and recycling requirements has been addressed by providing bin storage room as per council requirements. During the design refinement after the receipt of the Prelodgement letter, council officers were contacted by phone & revised drawings were emailed to council showing the location & size of the proposed Waste Room. We received verbal confirmation from council that the siting & size of the proposed Bulk Waste Room is acceptable

Waste storage bay

The current design does not address the waste and infrastructure requirements for a collect and return service to be conducted. The following will need to be incorporated as outlined in section 3.2.3 of the 'Multi-unit Dwelling Waste Management Guidelines' document including but not limited to:

Communal Waste Storage area large enough to accommodate 18x240L bins

Internal dimensions: 5.4m long by 3.2m wide

Comment: The waste and recycling requirements has been addressed by providing bin storage room as per council requirements. The waste management room has been provided with an area large enough to accommodate 18x240L bins. Internal dimensions of the provided room are 5.4m long by 3.2m wide
We received verbal confirmation from council that the siting & size of the proposed Bulk Waste Room is acceptable

The bay is constructed to allow physical separation from the waste storage bay and the bulky waste area. A wall is required between the two structures

The floor is to be constructed of concrete to a minimum thickness of 75mm, non-slip and smooth/even surface covered at all intersections; Floor graded to a central drainage point connected to the sewer if roofed or discharged onsite if the communal collection bay is un-roofed The bay is to be provided with an adequate supply of water through a centralized mixing valve with hose cock;

Doorway to be 1.2m in diameter

Service path leading to the structure and kerb must be 1.2m wide, concrete and remain parallel to the contours at all points with a maximum gradient of 1:24

Bins to permanently stored within the structure parallel to the walls

Located within 10m of the kerb

It is located so that it is integrated into the overall development and landscape design so that impact on the visual amenity of the development

Note: Model waste bay configurations are located in figures 3 of the 'Multi-unit Dwelling Waste Management Guidelines' document

Comment: The construction and services provided for the waste management room are included in the **Bin Storage Facility Design Specifications** provided at the end of this document. The provided service path leading to the structure and kerb is 1.24m wide, constructed of concrete and with a maximum gradient of 1:24.

The proposed waste management room where the bins are to be permanently is located within 10m of the kerb. The waste management room is proposed in a location that will not have a visual impact on the amenity of the development.

0.6 Mixed use development

The proposed development is for a new boarding house on top of existing shops. This type of development is classified as a Mixed use Development. Section C5.2.3 of the City of Penrith DCP has specific controls related to the Mixed Use Development Controls. Section C5.2.3 which states the following:

> *1) Where mixed use developments include a residential component, separate waste management facilities are to be provided, in accordance with the residential controls identified in Section 5.2 above.*

2) For non-residential uses located in mixed use developments, separate waste management facilities are to be provided for the non-residential uses, in accordance with the controls identified in Section 5.2.4 below.

Comment: The proposed waste management provisions for the residential section of the development have been separated from those provided for the retail shops.

0.7 Waste management for the existing retail section

Section C5.2.4 of the City of Penrith DCP has specific controls related to the Non-Residential part of a development. In this instance, it is nine existing retail shops. The management of the commercial waste will be carried out according to the requirement of the DCP Section C5.2.4 which states the following:

1) These controls will apply to commercial, industrial and any other non-residential development.
2) For any building comprising three or more storeys and not containing dwellings, a suitable system for the interim storage and transportation of waste and recyclables from each storey to the waste storage/collection area is to be integrated within the building's design.
3) Waste storage and collection areas should be:
a) Flexible in their design so as to allow for future changes in the operation, tenancies and uses;
b) Located away from primary street frontages, where applicable;
c) Suitably screened from public areas so as to reduce the impacts of noise, odour and visual amenity; and
Waste Management
d) Designed and located to consider possible traffic hazards (pedestrian/vehicular) likely to be caused by the storage and collection of waste.
4) The following features will need to be considered in the design of waste storage and collection areas: a) Dry recyclables including containers, paper, cardboard and toners for printers and photocopiers should be separated from other waste, for recycling;
b) Food scraps should be placed in specialised containment bins and collected on a regular basis (particularly where large volumes of perishable wastes are generated);
c) Refrigerated garbage rooms should be provided where there are large quantities of perishable wastes and infrequent collections; and
d) Clinical or hazardous and liquid waste should be placed in specialised containment bins and collected by specialised services.
5) Grease traps must be provided where there is a likelihood of liquid waste entering the drainage systems (contact Sydney Water to obtain trade waste requirements).
6) Communal storage/collection facilities are recommended where:
a) The design makes it difficult for all tenants to have ready access to a collection point; or
b) The site characteristics restrict vehicle entry.

7) Where a communal facility exists, each tenant should have a designated area which is clearly signposted.
8) Should a collection vehicle be required to enter the property, the driveway and manoeuvring area must be suitable for a collection vehicle in terms of both its strength and design.
9) The system for waste management must be compatible with the collection service(s) to be used whether Council or private contractor.
10) Swept paths demonstrating adequate manoeuvring area are to be provided with the application.

Comment: The proposed waste management provisions for the residential section of the development have been separated from those provided for the retail shops. A new waste management room within 10 m to the loading bay is proposed. The waste generated from the retail section of the development will be managed by the occupants of the retail shops utilising the services of the current waste service providers managing the retail waste. It is not envisaged that volumes of waste and recycling material produced by the retail shops will increase as a result of this proposed development. Accordingly the same amount of bins, as currently provided, are proposed for the retail shops. However, those bins will be housed in a room with the provisions and specification as listed in the **Bin Storage Facility Design Specifications** provided at the end of this document.

0.8 Demolition / Excavation / Construction Phase

Section C5.3 of the City of Penrith DCP has specific controls related to minimising waste during construction. The management of the waste produced during construction will be carried out according to the requirement of the DCP Section C5.3 which states the following:

Waste minimisation needs to be an integral component of the design and construction phases of a development. Issues that should be considered early in the development process include:
a) Ensuring project management of the site includes minimising waste generation, requiring the appropriate storage and timely collection of waste materials, and maximising re-use or recycling of materials;
b) Selecting materials to maximise re-use and recycling of existing materials;
c) Ensuring the right quantity of materials are delivered at the right time in the construction process to avoid damage and wastage, and returning unused materials; and
d) Considering the re-use and recycling of any new materials at the end of the development's life.

Significant reductions in waste to landfill and cost-savings can be made at the demolition, earthworks and/or construction stage of a development by implementing the waste management plan.

This waste management plan has been divided into three main part:
- demolition phase
- construction phase

- on-going operational phase

0.8.1 Demolition/excavation Phase

Section C5.3.1 of the City of Penrith DCP has specific controls related to minimising waste during demolition/excavation. The management of the waste produced during demolition/excavation will be carried out according to the requirement of the DCP Section C5.3 which states the following:

C5.3.1. Site Management
a) Minimising site disturbance and eliminating unnecessary excavation;
b) Where applicable, stripping topsoil from areas subject to excavation and storing it on site for re-use;
c) Identifying all waste likely to result from the works on site and opportunities for the reuse or recycling of materials;
e) Considering the method of demolition to be utilised so that selective deconstruction is implemented, enabling effective recycling of materials;
f) Identifying the area(s) on site to be used for the storage of materials, separating the areas for recycling and disposal (giving consideration to access, slope, drainage, location of waterways, stormwater outlets and vegetation);
g) Ensuring that separated materials are to be kept uncontaminated to guarantee the highest possible reuse value;
h) Considering where excess fill material will be disposed of, the quantity and quality of the excess material and the method of transport to be used;
i) Identifying and providing measures to prevent the occurrence of windblown litter, dust and stormwater pollution;
j) Where applicable, ensuring that: i) Contractors are arranged for the transport, processing and disposal of waste and recycling; and
ii) Evidence, such as weighbridge dockets and invoices for waste disposal or recycling services, is retained and available for presentation to Council Officers upon request.

Measures to be carried out on site during demolition in order to achieve the objectives of this DCP are as follows:

Preliminary Works

- **Set up temporary fence and safety sign.**
- **Install soil erosion fence in accordance with the provided drawings**.

Demolition

- **Dedicated storage space provided for materials (for reuse) within site and skip containers for recycling and disposal located at front of site.**
- **All weather access provided for vehicles to the site to storage and container areas**
- **Timber reclaimed and used for formwork**
- **Bricks, tiles and concrete rubble stored onsite and used for back filling for drained areas, landscaped areas, following that stage of construction. Excess material will be sent concrete recycling plant.**

- **Asbestos (if identified on site) to be handled by licenced contractor, wrapped up, removed and disposed of in secure landfill site**

Excavation:

- Excavated material to Landfill.
- **Truckloads will be covered prior to leaving the site.**

0.8.1 DEMOLITION PHASE.

The following table summarizes waste re-use and disposal proposed for the project resulting from the dismantle of the existing buildings:-

MATERIAL	QTY	RECYCLE		1.0
	M3	✓= 100%	NO	
Site vegetation, timber fencing.	15	✓		Mulch product for landscaping
Metal roof sheeting	0	✓		Scrap metal and re-use
Roof tiles	0	✓		Recycle facility
Window glass	20	✓		Recycled glass products
Unpainted timber (roof & floor framing)	50	✓		Re-use and wood chip for landscaping
Painted timber, windows and doors	30	50%	50%	Re-use and waste
Plasterboard	40	✓		Recycle
Carpets	5		100%	Re-use and waste
Brickwork	75	✓		Recycled brick, crushed for construction grade product i.e. sand and filler.
Concrete	60	✓		Recycled – crushed for construction grade product. i.e. road base
Fibro or Asbestos products	If any		100%	Licensed controlled landfill.
Miscellaneous	30		100%	Light fittings, door hardware etc. Waste
Approx. Total Volume	355	335	20	
Percentages		94%	6%	

0.8.2 Construction Phase

Section C5.3 of the City of Penrith DCP has specific controls related to minimising waste during construction. The management of the waste produced during demolition will be carried out according to the requirement of the DCP Section C5.3 which states the following:

C5.3 states: To encourage waste avoidance and resource recovery through planning, re-use and recycling by:
a) Improving project management of demolition or construction works to facilitate on-site source separation and appropriate collection of waste;
b) Ensuring that developments are designed to incorporate waste minimisation measures by facilitating source separation on site, the storage and collection of wastes and recyclables and providing maximum opportunities to use recycled materials;
c) Minimising the total material resources used and encouraging the selection and use of materials with low environmental impact over the lifecycle of the building.
d) To ensure new developments are designed to maximise resource recovery through measures and features that promote waste avoidance, source separation and recycling.
f) To promote measures which will ensure all waste streams are stored and handled appropriately to minimise adverse environmental, health and amenity impacts and which minimise risk to health and safety for all associated with waste collection and handling.
g) To reduce illegal dumping through providing well designed and appropriate bulky waste storage areas within the development.

C5.3.1 states:
d) Where construction is proposed, determining:
i) Opportunities for the use of prefabricated components and recycled materials;
ii) Approximate volumes of materials to be used and incorporating these volumes into a purchasing policy so that the correct quantities are purchased;
iii) Delivery arrangements of materials so that materials are delivered 'as needed' to prevent the degradation of materials through weathering and moisture damage; and
iv) Opportunities to return excess materials to the supplier or manufacturer;
Selection of Building Materials
5.3.2. States:
1) Choose materials with low embodied energy properties and/or materials that have been salvaged/recycled for the construction/fit out of the development. Table C5.1 on the following page identifies the building materials that can be reused/recycled.
Examples include:
a) Concrete that utilises slag and fly ash content.
b) Structural and reinforced steel that uses recycled steel content.
c) Bulk insulation products that contain recycled content, such as recycled glass in glasswool.

2) Choose certified plantation or engineered timber materials, and avoid unsustainable imported timber (such as western red cedar, oregon, meranti, luan or merbau).
3) Choose low volatile organic compound (VOC) materials, including low/no VOC paints and coatings, floor coverings and underlays, as materials with a high VOC or containing hydrofluoro-carbons can become volatile at room temperature contributing to poor indoor air quality and thus affecting the health of occupants.

Construction

- Purchasing Policy:
  - Ordering the exact quantities of ALL material allowing only a minimal percentage for replacement/repair of damage caused by workers
- Prefabrication of materials offsite where possible
- Reusing demolition timber for formwork
- Minimizing site disturbance, limiting unnecessary excavation
- Colour Coded and Labelled storage bins will be provided in designated areas on site.
- Careful site source separation of off-cuts to facilitate reuse, resale or efficient recycling and stored in skips onsite.
- Coordination/sequencing of various trades to limit overlap of different material usage.
- No hazardous waste is expected to be produced during construction.
- Packaging of material delivered to site will either be recycled or sent back to supplier-manufacturer.

Fit-outs

The recycling and separation of waste can be achieved by construction of a minimum five trade waste compounds on site. Each waste compound to be adequately sized to enclose the waste. Waste must be adequately secured and contained within the designated waste areas and must be covered to avoid blowing away by wind.
All weather access provided for vehicles to the site, storage and container areas for receipt of material and on-move for disposal or recycling.
Keeping Records
Copies of actual weighbridge receipts verifying recycling/disposal must be kept and presented to Council when required.

0.8.2 CONSTRUCTION PHASE.

The following table summarizes construction waste re-use and disposal proposed for the project:-

MATERIAL	QUANTITY of WASTE	RECYCLE		END PRODUCT
	M3	YES	NO	
Excavation in soil	9000	✓		Filling materials
Excavation in rock	6000	✓		Road base and sandstone products. Use sandstone on site for landscaping
Formwork	10	50%	50%	Wood chip for landscaping. Waste to landfill.
Re-inf. steel	2	✓		Recycle
Concrete	3	✓		Recycled construction grade product. i.e. road base, structural fill.
Concrete blocks	5	✓		Recycled brick, construction grade product i.e. sand and filler.
Packaging	10	70%	30%	Paper recycling. Other to landfill/
Timber	5	✓		Wood chip for landscaping
Plasterboard	5	✓		Recycle
Miscellaneous metals	5	✓		Recycle
Miscellaneous	20	50%	50%	Miscellaneous recycling. Waste to landfill.
Approx. Total Volume (m3)	15060	15040	20	
Percentages		98%	2%	

DISPOSAL & RECYLING MATERIAL

All material will be removed from site by the appointed demolition contractor. All of the demolition material will be sorted on site by the demolishing contractor. The demolition and excavation materials taken to the following plants for sorting, recycling and disposal.

Demolition Material	Company Name	Company Address	Contact Details	Services Offered / Material Accepted
Site vegetation, timber fencing.	Auburn waste Management Centre	Hill Road, Homebush Bay	1300 651 116	Accepts green waste & timber
Excavation material	Kari & Ghossayn	Elizabeth Drive, Kemps Creek 2171	(02) 9826 1137	Accepts demolition & excavation material including brick, concrete & tile. Also licensed for asbestos removal & disposal.
Brick, Concrete & Timber	Brandown	Lot 9 Elizabeth Drive, Kemps Creek 2171	(02) 9826 1256	Accepts brick, concrete and timber for recycling. Must be separated. Also accepts general demolition waste.
Metals, Aluminium windows, & metal roof sheeting	Universal Metal Recyclers	274-276 Toongabbie Rd, Girraween	(02) 8769 0999	Metal
Miscellaneous waste, packaging & excess timber	AKA Demolition & Tipping	Merrylands 2160	(02) 9681 3429	Makes an attempt to reuse/recycle most building materials. Also licensed for asbestos removal & disposal.
Plasterboard	Boral Recycling	3 Thackery St, Camellia 2142	(02) 9638 0571	Waste board picked up from customer or can be dropped off at plant.

Note: The names and details of the above listed contractors may change at the discretion of the successful builder or appointed demolishing contractor. This item will be called for tender prior construction.

0.8.3 COMPLIANCE BY APPOINTED CONTARCTOR

The waste management plan will be developed further with the contractors prior to and when appointed. This plan will be incorporated in the Environmental Management Plan initially prior to commencement on site, and then further developed as the project progresses.

Procedures will be developed to maximize compliance with the developed plan.

The plan will be monitored at site level to ensure compliance throughout the demolition and construction phases.

Procedures will be in place to;

- Record actual movements of waste throughout the project.
- Record and monitor any incident or non-conformance with the plan.
- Identify and implement any corrective action necessary.
- Identify those responsible for rectification.
- Record changes to procedures.
- Consult with relevant authorities.

0.9 On-Going Waste

Section C5.3.4 of the City of Penrith DCP has specific controls related to minimising waste during operational phase of a development. The management of the on-going waste produced during the lifetime of the development will be carried out according to the requirement of the DCP Section C5.3.4 which states the following:

Siting and Design of Waste Storage and Collection Areas
1) Waste storage and/or collection areas (or the required space for these facilities) should be available both on-site and within individual tenancies of all developments for the source separation of waste, recyclables and compostable materials.
2) The expected volumes of waste and recyclables generated by the construction and ongoing use of the development, including individual tenancies, must be calculated. The selection of appropriate waste equipment and the floor area requirements for waste storage will need to be an integral element of the design for the development.
3) Space must be provided to allow for the storage, access and manoeuvring of waste bins to facilitate ease of use and servicing.
4) Waste and recycling containers must be stored at all times on the site unless Council has issued an approval under the Local Government Act 1993 to store waste in a public place.
5) All waste management facilities must comply with the Building Code of Australia and relevant Australian Standards.
6) The nominated collection area for the development on-site is to be clearly nominated on scaled site plans accompanying the development application.

0.9.1 Bin Storage Facility Design Specifications

The construction of the garbage and recycling bin storage area is to be in accordance with the following:

1. of masonry/brickwork compatible with the development with walls a minimum of 1.5m high;

2. of dimensions which will store and allow the manoeuvring of at least the minimum number of garbage and recycling bins required;

3. with a level floor of 100mm thick reinforced concrete with a smooth, non-slip finish and suitably drained to landscaped areas;

4. with a 5cm radius sanitary coving at the junction of the floor slab and walls;

5. with a water supply and tap to facilitate bin washing onto turfed or garden areas (if tap is located inside the bin storage compound it is not to protrude into the space indicated for the placement of bins);

6. with a wooden bump rail, fixed to the interior wall of the bin compound, at the height of the upper and outer most point of the 1.5m3 bulk garbage bin (for bin compounds required to store a 1.5m3 bulk garbage bin);

7. with a minimum clear wall opening of:

- 1.5m for a bin compound requiring a bin of maximum size 1.5m3;
- 1.0m for a bin compound requiring bin of maximum size 660L bin; or
- 820mm for a bin compound requiring only 240L bins;

8. with a door (hinged or sliding gates of painted wood or metal, or panel-lift/roller/tilta-door) in the wall opening which, when fully opened, is flush with the outside wall and/or not blocking the driveway or footway, and which allows most direct access to the bins for servicing by the collection vehicle;

9. with a suitable resident access door (allowing wheelchair access for adaptable sites);

10. with a bin servicing area constructed of smooth, non-slip 100mm thick reinforced concrete, with a maximum grade of 5%, adjacent to the opening of the bin compound and extending out (including kerb crossing where required) to allow safe manoeuvring and servicing of the bulk garbage bin(s) by the garbage truck operator;

11. with a heavy duty driveway and driveway crossing (suitably splayed) where the collection vehicles are required to enter the site (wall to wall turning circle of 21.75m);

12. with signage provided by Council to be mounted in a visible location on an internal wall in the bin compound and is to be maintained by the body corporate (signage is to indicate the correct use of the garbage and recycling service);

13. with permanent signage, which is to be maintained by the body corporate and mounted in a visible location on:

    1. an internal wall in the bin compound, indicating which units or building the bin compound is allocated to (if bin compound is not provided for all units or if more than one bin compound is provided);

    2. the front of the bin compound, indicating No Parking in front of Bin Compound - 24 hours, where the bin compound opening and access path have frontage to the street or internal driveway (applicable only if the bin compound contains bulk garbage bins).

    3. for use only by the residents of the completed development and no builders or contractors waste is to remain in the bin compound;

0.10 Access to Waste Storage and/or Collection Areas

Section C5.3.4.1 of the City of Penrith DCP has specific controls related to Access to Waste Storage and/or Collection Areas. Access to Waste Storage and/or Collection Areas will be carried out according to the requirement of the DCP Section C5.3.4.1 which states the following:

1) The design and location of waste storage and/or collection areas should allow for ease of access for both tenants and waste contractors and should be separated from the car parking area(s) or located away from the circulation path of other vehicles.
2) The location of the waste storage and/or collection area(s):
a) Is to be convenient and accessible to the occupants of all tenancies in the development; and
b) Must allow 120/240 litre bins to be wheeled to the street kerb over flat or ramped surfaces with a maximum grade of 7% and not over steps, landscape edging or gutters; or
c) Must allow for bulk garbage bin(s) to be wheeled out and be serviced by a front loading garbage truck on a flat surface with a maximum grade of 5%, and not over steps, landscape edging or gutters; and
d) Be screened or discreetly located away from public spaces.
3) There must be sufficient manoeuvring area on-site to allow collection vehicles to enter and leave the site in a forward direction and service the development efficiently with little or no need to reverse.

0.11 Design of Waste Storage and/or Collection Areas

Section C5.3.4.2 of the City of Penrith DCP has specific controls related to Design of Waste Storage and/or Collection Areas. Design of Waste Storage and/or Collection Areas will be carried out according to the requirement of the DCP Section C5.3.4.2 which states the following:

1) The design and location of waste storage and/or collection areas are an integral part of the development's design and should complement the public domain by:
a) Reducing potential noise and odour impacts;
b) Being well lit and well ventilated, with appropriate measures installed so as to prevent vermin; and
c) Enhancing public safety.
2) Waste storage and/or collection areas must have access to a water outlet for washing purposes, with wash water discharging to an approved sewer outlet.
3) Waste equipment should be protected from theft and vandalism.

0.12 Management of Waste Storage and Collection Areas

Section C5.3.5.1 of the City of Penrith DCP has specific controls related to Management of Waste Storage and Collection Areas. Management of Waste Storage and Collection Areas will be carried out according to the requirement of the DCP Section C5.3.5.1 which states the following:

1) Administrative arrangements for ongoing waste management must be provided, including signs.
2) Waste storage and/or collection areas (including individual containers) should be suitably signposted so as to ensure appropriate use.
3) The responsibility for the ongoing management of waste facilities must be determined prior to the commencement of construction work on a development.

Figure C5.6: Waste storage areas should be well lit and clearly signposted

Ongoing Waste Management

- **The flow diagrams on the following pages depict the waste management system for the above project.**
- **The residents will transfer their waste to the garbage chute on their floor. The waste will be transferred by the chute to the waste compactor in the waste management room on the ground floor. The waste compactor will compact the waste to reduce the volume.**
- **The building supervisor will periodically replace the full bins with empty one. The full bins will be stored in the waste management room until the collection night.**
- **Residents will be required to place recyclable materials in the designated area on the Ground Floor where there will be colour-coded bins for the various recyclables (e.g. paper, glass and PET).**
- **Occupants of commercial space will be required to place waste and recyclable materials in the designated area on the Ground Floor where there will be garbage bins for waste and colour-coded bins for the various recyclables (e.g. paper, glass and PET).**
- **On collection night, the building supervisor will transfer the full the waste contractors will collect the full waste and recyclables from the waste management area.**

Refer to flow diagrams bellow.

Lifting the Bar The following represent some ways in which applicants can demonstrate additional commitment to the general waste management controls expressed in this Plan. Demonstration of this commitment may lead to Council considering variation of development controls. Applications that vary the development controls listed in this section will need to demonstrate that the proposed development complies with the objectives relevant to the development controls it seeks to vary. a) Ensure the design and fit out of the development is above the 4 star rating under Green Star or 4.5 star rating under the Australian Building Greenhouse Rating system, now part of the National Australian Built Environment Rating System (NABERS), depending on the type of development; b) Reduce the use of timber from old growth forests, rainforests and forests/plantations which do not have certified environmentally responsible forest management practices. Applicants need to demonstrate that a significant percentage of the timber and composite timber products used in the building and construction works is from Forest Stewardship Council Certification, utilises reused or recycled timber or is specified using the Friends of the Earth 'Good Wood Guide' 9th Edition; and c) Reduce the volume of demolition, construction and fit out waste, including excavation, going to landfill by 76%.

0.13 Hazardous Waste Management

Section C5.4 of the City of Penrith DCP has specific controls related to Hazardous Waste Management. Hazardous Waste Management will be carried out according to the requirement of the DCP Section C5.4 which states the following:

1) Administrative arrangements for ongoing waste manangement

The NSW Environment Protection Authority (EPA) generally regulates the management of hazardous waste. Therefore, any applications that will involve hazardous waste may require a licence or permit from the EPA in addition to approval from Council.
Please contact Council or the EPA to discuss the requirements for hazardous waste.

0.14 On-Site Sewage Management

Section C5.5 of the City of Penrith DCP has specific controls related to On-Site Sewage Management. On-Site Sewage Management will be carried out according to the requirement of the DCP Section C5.5which states the following:

The need to provide on-site sewage management is set out in the 'Infrastructure and Services' Section of this Plan. The location and design of on-site sewage treatment and disposal is regulated by Council. (See Penrith City Council's On-site Sewage Management and Greywater Reuse Policy, 2014). Please contact the Council to discuss the most suitable on-site sewage management system for your development.