WASTE MANAGEMENT PLAN

DEMOLITION, CONSTRUCTION AND USE OF PREMISES

The applicable sections of this table must be completed and submitted with your Development Application.

Completing this table will assist you in identifying the type of waste that will be generated and will advise Council of how you intend to reuse, recycle or dispose of the waste.

The information provided on the form (and on submitted plans) will be assessed against the objectives of the DCP.

If space is insufficient in the table please provide attachments.

Outline of Proposal

Site Address: _____

Applicant's name and address: _____

_____

_____

Phone: _____ Fax: _____

Building and other structures currently on the site: _____

_____

_____

Brief description of Proposal: _____

_____

_____

_____

_____

_____

The details provided on this form are the intentions of managing waste relating to this project.

Signature of Applicant: _____Date: _____

STAGE ONE – DEMOLITION

This is the stage with the greatest potential for waste minimisation, particularly in Sydney where there are high levels of development, relatively high tipping charges and where alternative quarry materials are located on the outskirts.

Applicants should consider is whether it is possible to re-use existing buildings, or parts thereof, for the proposed use.

With careful onsite sorting and storage and by staging work programs it is possible to re-use many materials, either on-site or off-site.

Council is seeking to move from the attitude of straight demolition to a process of selected deconstruction, ie. total reuse and recycling both off-site and on-site. This could require a number of colour-coded or clearly labelled bins onsite (rather than one size fits all).

Applicants should demonstrate project management which seeks to:

- re-use of excavated material on-site and disposal of any excess to an approved site;
- greenwaste mulched and re-used in landscaping either on-site or off-site;
- bricks, tiles and concrete re-used on-site as appropriate, or recycled off-site;
- plasterboard re-used in landscaping on-site, or returned to supplier for recycling;
- framing timber re-used on-site or recycled elsewhere;
- windows, doors and joinery recycled off-site;
- plumbing, fittings and metal elements recycled off-site;
- All asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with Workcover Authority and EPA requirements;
- Locations of on-site storage facilities for material to be reused on-site, or separated for recycling off-site; and
- Destination and transportation routes of all materials to be either recycled or disposed of off-site.

The following table should be completed by applicants proposing any demolition work. The following details should be shown on your plans.

- Location of on-site storage space for materials (for re-use) and containers for recycling and disposal.
- Vehicle access to the site and to storage and container areas.

Demolition Stage One – To be completed for proposals involving demolition

Materials On-Site		DESTINATION		
		REUSE & RECYCLING		**DISPOSAL**
Type of Material	Estimated Volume (m3) or Area (m2) or weight (t)	**ON-SITE** Specify how materials will be reused or recycled on-site	**OFF-SITE** Specify the contractor and recycling outlet	Specify the contractor and landfill site
EXAMPLE *e.g. bricks	*e.g. 2m3	*e.g. clean & reuse for footings and broken bricks behind retaining walls	*e.g. sent by XYZ Demolishers to ABC Recycling Company	*e.g. nil to landfill
Excavation Material				
Green Waste				
Bricks				
Tiles				
Concrete				
Timber – please specify				
Plasterboard				
Metals				
Asbestos				
Other waste e.g. ceramic tiles, paints, plastics, PVC tubing, cardboard.				

Demolition Stage One - continued

How will waste be separated and/or stored onsite for reuse and recycling?
How will site operations be managed to ensure minimal waste creation and maximum reuse and recycling?

e.g. Staff training, selected deconstruction v. straight demolition, waste management requirements stipulated in contracts with sub-contractors, on-going checks by site supervisors, separate area set aside for sorted wastes, clear signage for waste areas etc.

Note: Details of the site area to be used for on-site separation, treatment and storage (including weather protection) should be provided on plan drawings accompanying your application.

STAGE TWO – CONSTRUCTION

Stage Two – Potential for Waste Minimisation During Construction Stage

- Consider the following measures that may also save resources and minimise waste at the construction stage:

  - Purchasing Policy – i.e. Ordering the right quantities of materials and prefabrication of materials where possible;
  - Reusing formwork;
  - Minimising site disturbance, limiting unnecessary excavation;
  - Careful source separation of off-cuts to facilitate re-use, resale or efficient recycling;
  - Co-ordination/sequencing of various trades.

How to Estimate Quantities of Waste

- There are many simple techniques to estimate volumes of construction and demolition waste. The information below can be used as a guide by builders, developers & homeowners when completing a waste management plan:

To estimate Your Waste:
ii. Quantify materials for the project
iii. Use margin normally allowed in ordering
iv. Copy these amount of waste into your waste management plan

- When estimating waste the following percentages are building "rule of thumb" and relate to <u>renovations</u> and <u>small home building:</u>

Material	**Waste as a Percent of the Total Material Ordered**
Timber	5-7%
Plasterboard	5-20%
Concrete	3-5%
Bricks	5-10%
Tiles	2-5%

Converting Volume into Tonnes : A Guide for Conversion

Timber = 0.5 tonnes per m3
Concrete = 2.4 tonne per m3
Bricks = 1.0 tonne per m3
Tiles = 0.75 tonne per m3
Steel = 2.4 tonne per m3

- To improve provide more reliable figures:

  - Compare your projected waste quantities with actual waste produced;
  - Conduct waste audits of current projects;
  - Note waste generated and disposal methods;
  - Look at past waste disposal receipts;
  - Record this information to help estimate future waste management plans.

- On a waste management plan amounts of waste may be stated in – m2 or m3 or tonnes (t).

Construction Stage Two – for proposals involving construction

Materials On-Site		DESTINATION		
		REUSE & RECYCLING		**DISPOSAL**
Type of Material	Estimated Volume (m3) or Area (m2) or weight (t)	**ON-SITE** Specify how materials will be reused or recycled on-site	**OFF-SITE** Specify the contractor and recycling outlet	Specify the contractor and landfill site
EXAMPLE *e.g. bricks	*e.g. 2m3	*e.g. clean & reuse for footings and broken bricks behind retaining walls	*e.g. sent by XYZ Demolishers to ABC Recycling Company	*e.g. nil to landfill
Excavation Material				
Green Waste				
Bricks				
Tiles				
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Timber – please specify				
Plasterboard				
Metals				
Other waste e.g. ceramic tiles, paints, plastics, PVC tubing, cardboard.				

How will waste be separated and/or stored onsite for reuse and recycling?
How will site operations be managed to ensure minimal waste creation and maximum reuse and recycling?

e.g. Staff training, selected deconstruction v. straight demolition, waste management requirements stipulated in contracts with sub-contractors, on-going checks by site supervisors, separate area set aside for sorted wastes, clear signage for waste areas etc.

Note: Details of the site area to be used for on-site separation, treatment and storage (including weather protection) should be provided on plan drawings accompanying your application.

STAGE THREE – DESIGN OF FACILITIES

- The following details should be shown on your plans:

  - Location of temporary storage space within each dwelling unit;
  - Location of Waste Storage and recycling Area(s), per dwelling unit or located communally onsite. In the latter case this could be a Garbage & Recycling Room;
  - Details of design for Waste Storage and Recycling Area(s) or Garbage and Recycling Room(s) and any conveyance or volume reduction equipment; and
  - Location of communal composting area.
  - Access for vehicles.

- Every builder shall be provided with a Waste Storage and Recycling Area which is flexible in size and layout to cater for future changes in use. The size is to be calculated on the basis of waste generation rates and proposed bin sizes.

Stage 3 – Design of Facilities – To be completed if designing waste facilities for the proposed development

TYPE OF WASTE TO BE GENERATED	EXPECTED VOLUME PER WEEK	PROPOSED ON-SITE STORAGE AND TREATMENT FACILITIES	DESTINATION
Please specify. For example: glass, paper, food waste, offcuts etc.	Litre or m3	For example: • waste storage & recycling area • garbage chute • on-site composting • compaction equipment	• recycling • disposal • specify contractor

Note: details of on-site waste management facilities should be provided on plan drawings accompanying your application.

ON-GOING MANAGEMENT

Describe how you intend to ensure on-going management of waste on-site (eg. lease conditions, caretaker/manager on-site).

Thank you for the information.

ESSENTIALS FOR WASTE MANAGEMENT IN MULTI UNIT DWELLINGS (M.U.D)

Many of the issues for good waste management are common across all M.U.D.
The following is the bare minimum that needs to be considered for all M.U.D.

1. Council

a. What regulations apply?
b. What are the current Council garbage and recycling services?
   i. Will Council service the development?
   ii. If No – seek consultation through a Private Contractor for the best solution for development.
c. Are the plans to change the service in the future?
d. Include waste management plan in the DA pre-lodgement meetings.

2. Space

a. The anticipated volume of waste must be calculated and appropriate waste service selected.
b. Sufficient space must be allocated for the containers and for manoeuvring – bins, including frontage area, etc.

3. Access – for residents and collectors

a. Collection vehicles must be able to service the development efficiently and effectively from kerb within confines of the allotment frontage with no need to reverse.
b. The maximum carting distance between the storage and collection points must be no more than 75m, and no more than 50m for aged persons and persons with a disability.
c. The bin carting grade must not exceed 1:14.
d. Bins must not need to be wheeled over steps.
e. Bulk bins must not need to be manually manoeuvred by a single person to be serviced.

4. Amenity

a. Noise and odour must be minimised.
b. Waste areas must be able to be washed, with wash water discharging to sewer.
c. Vermin must be prevented from entering waste areas and containers.
d. Equipment must be protected from theft and vandalism.
e. Waste storage areas must blend in with the development.

5. Management

a. Signage must be posted in all communal waste storage areas.
b. Bins must be clearly and correctly labelled.
c. Responsibility for cleaning of waste storage areas must be determined when designing the system.
d. Responsibility for transfer of bins must be determined when designing the system.

Council's regulations

Council will only service up to 30 units/townhouses.
Council supplies 1 x 140 litre bin for general waste (1 bin per unit/townhouse)
Council supplies 1 x 240 litre bin for recycling to be shared (1 between 2 unit/townhouse)
A 240 litre bin is provided for green waste – upon request from strata management.
No services are available to private roads.

Commercial Services

Under the current contract Council does not automatically offer services to this industry & is not in the business of removing trade waste.

Services are available to small business where a limited amount of waste is generated. Option of 140 or 240 litre bins.

CBD is serviced 6 days/per week, however, charges are calculated on the number of weekly services.

Retail & Food industries that generate large volumes of waste generally use the services of private contractors.

No Council recycling services are available to this sector under the current contract, however, this could change from 1/7/06.

Council's waste service collection
General waste collected weekly.
Recycling collected alternate fortnights.
Green waste alternate fortnights.

Standard general waste bin size can be increased to a 240 litre bin, however will incur an additional charge and is required in writing from the strata management or owner.

Bin dimensions:

140 litre bin:

Normal volume:	140 litres
Net weight:	approx 10.4 kg
Maximum load:	56 kg
Permitted total weight:	70 kg
Height	925mm
Width	535mm
Depth	615mm

240 litre bin:

Normal volume:	240 litres
Net weight:	approx 12.3 kg
Maximum load:	96 kg
Permitted total weight:	110 kg
Height	1060mm
Width	585mm
Depth	730mm