

WASTE MANAGEMENT PLAN Hills Marketplace 287 Mona Vale Road Terrey Hills





Table of Contents

- 1. Project Details
- 2. Executive Summary
- Waste Management Plan / Guidelines
 General
 Bio Waste
 Concrete and Steel
 Timber and Pallets
 Cardboard
 Plasterboard / ICP
- 4. The Recycling Process
- 5. Resource Recovery
- 6. Hazardous Material
- 7. Waste Volumes to be Processed During Demolition
- 8. Waste Volumes to be Processed During Construction
- 9. Documents used for Calculations of Waste
- 10. Waste Management Plan Carnes Hill MarketplaceDetails of Waste Management Demolition Phase Table A
- **11. Waste Management Plan Carnes Hill Marketplace** Details of Waste Management - Demolition Phase Table B



1. PROJECT DETAILS

Site Name:	Hills Marketplace – Extension
Site Address:	287 Mona Vale Road, Terrey Hills, NSW, 2084

The project consists of:

- Demolition of existing buildings, structures and parking to facilitate extension to existing structure and new buildings.
- Construction of 2 single storey buildings providing a new restaurant, rural supplies and garden centre as well as expansion of new building to accommodate an additional garden centre and shared amenities.
- New landscaping.
- New on grade parking to replace and supplement existing to support the development.
- Upgrade of services infrastructure to support extension.

Should the scope of works significantly change during the project, this summary will be updated.

2. EXECUTIVE SUMMARY

The aim of this plan is to manage and reduce wastage from site during the demolition and construction phase of the project. In particular the goal is to maximise recycling of the wasteage from site and ensure environmental best practice is achieved through environmentally efficient and cost effective methods of managing and removing waste and recyclables from site.

NSW produces 6.9 million tonnes of construction and demolition (C&D) waste per year. The EPA's NSW Waste and Resource Recovery Strategy 2014 – 2021 sets a target of 80% recycling of C&D waste by 2021. This is the goal set for this project.

Throughout the project the principal contractor will also encourage and train the subcontractors on how to manage their own waste and recycling. It will be the responsibility of all team members to work together internally and with the subcontractors to achieve the best possible outcomes in reducing the waste that the site generates.

Noted below are the minimum standards the principal contractor will enforce on this site to achieve the above and will be monitoring and measuring our success based on these guidelines.

3. WASTE MANAGEMENT PLAN / GUIDELINES

• The agreed documented waste management / recycling strategy for the project is as follows;

General

- Site Management will ensure waste management as per the below strategies are included in all Scope of Works sent out and contract documents.
- A dedicated Construction Waste and Demolition facility will be engaged to ensure compliance to Councils, EPA and the Principal Contractors KPI's are achieved. A strategy of bin type provision and placement will be agreed with the facility management and will be documented as part on the final



Waste Management Plan. The Waste Mangement Plan forms a subset to the overall Environmental Management Plan.

- Waste to be minimised on-site by the provision of dedicated bins for recycling and through enforcing the sorting of materials on site into these bins.
- General waste bin costs to be minimised by recycling of materials and the efficient packing of the general waste bins.
- Waste management strategies and bin situation/locations as per below to be included in the subcontractors site induction.
- All bins (areas) are to have signs displaying what type of bins they are (i.e. Steel, Timber, Concrete, General waste...). Signage to be as per Mainbrace Standard.
- All subcontractors are responsible for placing all their own rubbish and waste in the bins provided.
- All subcontractors to be responsible for the removal of their own pallets and large recyclable and excess material off site.
- Waste management to be included in toolbox talks periodically throughout the job, both internal and subcontractor toolbox talks.
- General waste and recycling bins are to be stacked in an orderly and efficient manner to minimise voids and avoid wasted space in the bin.
- All site staff to do visual inspection daily to ensure subcontractor compliance with this plan and the separation of materials is being carried out accurately, and to ensure that bins are stacked correctly and that there are no massive voids.
- Non-conformances to be issued to subcontractors not adhering to the waste management process on-site.

Bio Waste

 Dedicated food scrap bin (Bio waste) to be provided, adjacent site compound area. OR Food scrap bins to be provided in amenities area and lunchroom, these are to be bagged and tied prior to being placed in general waste bins

Concrete and Steel

- Dedicated concrete and steel bins to be provided and monitored for subby compliance.
- All excess concrete from pours, pump hoppers etc. to be kept to a minimum. Any additional concrete to be used to provide all weather access to sheds and offices where possible. If not required then concrete to be placed in a dedicated area or bin and recycled accordingly.
- Any excess steel, reinforcement etc. to be stockpiled neatly in an allocated area on site until a sufficient quantity has been accumulated to warrant removal via a dedicated bin, OR placed directly into the bin provided for recycling.

Timber and Pallets

- No full pallets to be placed in the bin, General Waste or timber.
- All full pallets to be separately collected and recycled for use.
- If pallets are not able to be recycled, they must be cut up and stacked neatly in the timber bin (or general waste bin if no timber bin on-site) by the subby who owns them.
- Ensure that all large packaging, pallets, left-over materials and the like are taken away by the subbie, i.e. Electrician to take all cable drums, packaging and the like away themselves



Cardboard

- Cardboard to be laid flat and wet down (Saturated) in the bottom of bins to reduce its impact. May require stockpiling cardboard adjacent to the bins so this can be laid flat into the bottom of an empty bin
- All Cardboard is to be placed in a created area (by temp fencing) for collection by dedicated cardboard recycler

Plasterboard / ICP

- Coolroom contractor to take unused panels away; **not** to be placed in our bins.
- Coolroom contractor to ensure they stack any offcuts/waste neatly in the bin to prevent voids.
- Dedicated plasterboard bin to be provided if deemed suitable
- Ceilings / wall linings contractor to take all left-over material away and not to dispose in site bins.

4. THE RECYCLING PROCESS

The figure below provides an overview of how materials sent to the recycling facility are to be inspected, assessed, sorted, processed and tested to maximise the recovery of materials in waste loads received. Following the sorting and testing of recovered materials, these materials are then on sold to recyclers who use the materials to manufacture a range of construction and related products. Examples of the partners used for that support are listed below.





5. **RESOURCE RECOVERY**

Below are the KPI's set down for the recycling of the demolition and construction waste from the site. These are the current outputs achieved by Mainbrace's preferred Waste Management facility located near the site. Note this does not include food related waste.

Material	Status at time of delivery	Estimated resource recovery
Mixed construction and demolition waste	Mixed	80%
Bricks/pavers	Separated	100%
Mixed bricks and concrete	Mixed load containing only bricks and concrete	100%
Concrete	Separated	100%
Roof tiles	Separated	100%
Clean soil	Separated	100%
Mixed timber	Mixed load of different types of timber	85%
Untreated timber	Separated	100%
Metal	Mixed load of different types of metal	100%
Ferrous metal	Separated	100%
Non-ferrous metal	Separated	100%
Average of all incoming waste	All deliveries	85%



6. HAZARDOUS MATERIAL

Prior to any work occurring on site, a hazardous material survey is to be undertaken. Once completed and reviewed, any materials such as asbestos will be treated according to the procedures set out in NSW guidelines and the approved Environmental Management Plan. Any contaminated materials such as Asbestos will be taken to a licenced facility for disposal.

7. WASTE VOLUMES TO BE PROCESSED DURING DEMOLITION

See attached Table "A" for details on preliminary estimated volumes of waste during the Demolition Phase.

8. WASTE VOLUMES TO BE PROCESSED DURING CONSTRUCTION

See attached Table "B" for details on preliminary estimated volumes of waste during the Construction Phase.

9. DOCUMENTS USED FOR CALCULATIONS OF WASTE

The documents used to calculate the volumes described in tables "A" and "B" are as follows;-

A00.01 TITLE SHEET, LOCATION PLAN & DRAWING LIST A00.04 SAFETY IN DESIGN STATEMENT A00.05 SITE ANALYSIS A01.01 EXISTING & DEMOLITION PLAN - SITE A01.02 EXISTING & DEMOLITION - GL A01.10 EXISTING & DEMOLITION - ROOF A01.30 EXISTING & DEMOLITION - ELEVATION A01.40 EXISTING & DEMOLITION - SECTION A02.01 PROPOSED OVERALL SITE PLAN A02.20 PROPOSED GROUND FLOOR PLAN A02.21 PROPOSED MEZZANINE PLAN A02.40 PROPOSED ROOF PLAN A02.50 3D VISUALISATIONS / PERSPECTIVES A09.01 PROPOSED EXTERNAL ELEVATIONS A11.01 PROPOSED BUILDING SECTIONS A60.01 SIGNS & DISPLAYS A70.01 - MATERIAL SAMPLE BOARD A70.01 MATERIAL SAMPLE BOARD A100.20 GREEN RATIO & PARKING ANALYSIS A100.21 GFA ANALYSIS GROUND LEVEL A100.22 GFA ANALYSIS MEZZANINE LEVEL A100.50 SOLAR STUDY



10. WASTE MANAGEMENT PLAN – HILLS MARKETPLACE

Details of Waste Management - Demolition Phase Table A

MATERIALS ON SITE		DESTINATION			
			Reuse and Recycling		Disposal
Type of Materials	Estimated		ON-SITE	OFF-SITE	Specify contractor and landfill site
	Vol. (m³)	Wt. (t)	Specify proposed reuse or on- site recycling methods	Specify contractor and recycling outlet	
Bricks	10	10	N/A	Budget Waste/Concrete Recyclers Camelia EPA 6664	NIL
Concrete	75	180	N/A	Budget Waste/Concrete Recyclers Camelia EPA 6664	NIL
Timber (clean)	30	15	N/A	Budget Waste/ANL Badgerys Creek EPA 4625	NIL
Timber (treated)	10	5	N/A		Budget Waste/Blacktown Waste Services Blacktown EPA 11497
Asphalt	100	102	N/A	Budget Waste/Concrete Recyclers Camelia EPA 6664	NIL
Metals	40	95	N/A	Budget Waste/ Sell and Parker Blacktown EPA 11555	NIL
Plasterboard	45	30	N/A	Budget Waste/CSR	Budget Waste/Blacktown Waste Services Blacktown EPA 11497
Glass	8	20	N/A	Budget Waste/Penrith Valley Glass	NIL
Green Waste	100	50	N/A	Budget Waste/ANL Landscapes EPA 4625	NIL
Ceramic Tiles	10	22	N/A	Budget Waste/ Concrete Recyclers Camelia EPA 6664	

11. WASTE MANAGEMENT PLAN – HILLS MARKETPLACE

Details of Waste Management - Construction Phase Table B

MATERIALS ON SITE		DESTINATION			
			Reuse and Recycling	Disposal	
Type of Materials	Estimated		ON-SITE	OFF-SITE	Specify contractor and landfill site
	Vol. (m³)	Wt. (t)	Specify proposed reuse or on- site recycling methods	Specify contractor and recycling outlet	
Bricks	10	10	N/A	Budget Waste/Concrete Recyclers Camelia EPA 6664	
Concrete	60	144	N/A	Return to concrete supplier (boral) for recycling	
Ceramic Tiles	2	5	N/A	Budget Waste/Concrete Recyclers Camelia EPA 6664	
Timber (untreated)	5	5	N/A	Budget Waste/ANL Badgerys Creek EPA 4625	
Metals	5	12	N/A	Budget Waste/Sell and Parker Blacktown EPA 11555	
Plasterboard	30	20	N/A	Budget Waste/CSR	Budget Waste/Blacktown Waste Services Blacktown EPA 11497
Green Waste	3	1.5	N/A	Budget Waste/ANL landscapes Badgerys creek	
Cardboard Packaging	120	84	N/A	Budget Waste /Cardboard King St Marys	
Asphalt	4	4	N/A	Budget Waste/Concrete Recyclers Camelia EPA 6664	
GSW	400	400	Reuse cut to fill	Budget Waste/Brandown Kemps Creek for any excess EPA 12618	