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## SITE WASTE MANAGEMENT REPORT

189 Riverview Road, Avalon Beach

Lot C in DP 381427



Prepared for:

Alchemy Architects

Report SW21/06097

## DOCUMENT CONTROL

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# 1 INTRODUCTION

This Site Waste Minimisation and Management Plan (SWMMP) Report has been prepared on behalf of the Alchemy Architects and should be read in conjunction with the plans encompassing Project: Durie Residence prepared by Durie Design.

The report summarises the waste minimisation and management practices intended to be implemented as part of the construction of a multi-level dwelling house development and its operational use.

## 1.1 SUMMARY

The proponent proposes to demolish an existing dwelling house with associated light infrastructure and then construct a multi-storey building with garage and swimming pool. The proposed building is to have associated retaining walls, related earthworks and landscaping.

This report is an outline of the waste minimisation and management policies and procedures to be implemented by contractors during the demolition phase, construction phase and the property manager/owners during the post construction (operational phase) of the development.

These policies and procedures will set a framework for all parties to minimise generation of residual (non-recyclable) waste, and to take advantage of the opportunities for re-use of waste materials by ensuring that efficient recovery and segregation measures for all waste materials are provided.

## 2 BUILDING CHARACTERISTICS

### 2.1 SITE DESCRIPTION

The site is identified legally as Lot C of Deposited Plan 381427. It is commonly known as 189 Riverview Road, Avalon Beach. The subject site has an area of 1,072.00 m<sup>2</sup>.

Please refer to the below aerial image.

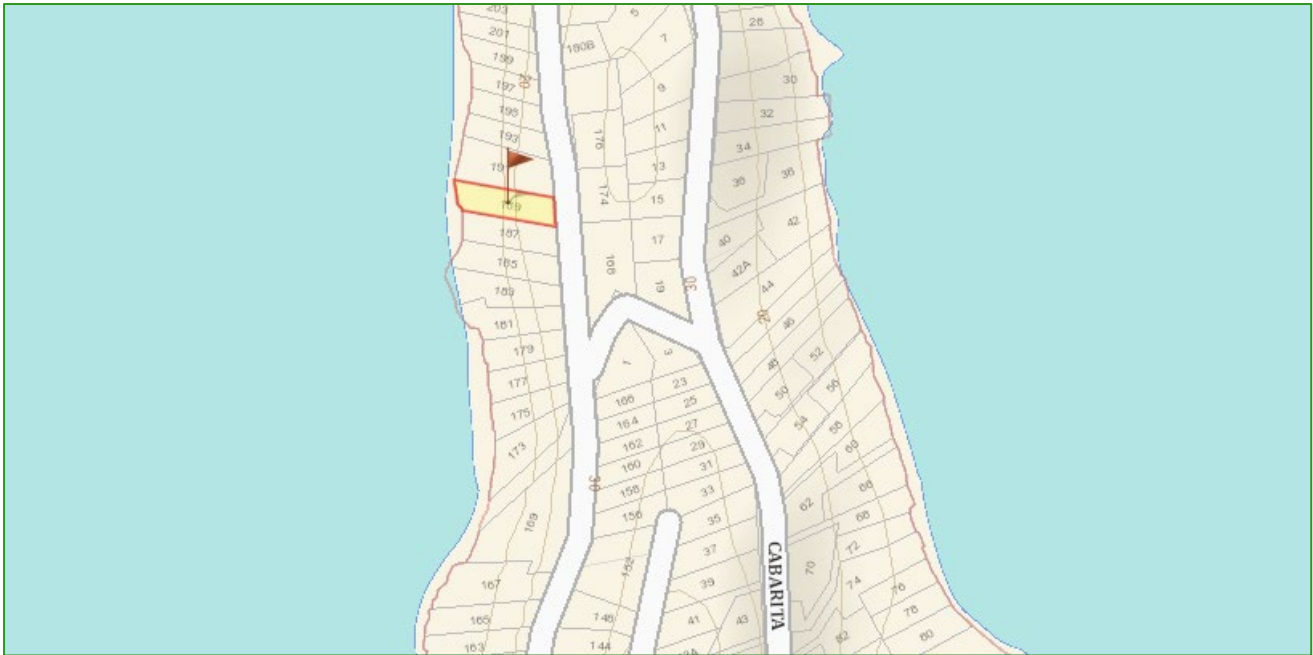


Figure 1 - Aerial Image

### 2.2 SITE ANALYSIS

The site is located within a well established area with surrounding residential developments. There is an existing residential dwelling located on the site with associated light infrastructure.

# 3 DESCRIPTION OF PROPOSAL

## 3.1 PROPOSED DEVELOPMENT

The proposed development includes the demolition of an existing residential development with light infrastructure and the subsequent construction of a multi-storey residential dwelling house, garage, swimming pool and ancillary site works.

## 3.2 SITE ACCESS

The subject site has a street frontage to Riverview Road. Vehicular access to the site is via a driveway from Riverview Road .

## 3.3 SITE SERVICES

The site has access to all necessary essential services including water, sewer, electricity and telecommunications.

# 4 PURPOSE OF THE REPORT

## 4.1 AIMS

The aim of the SWMMP is to outline measures to minimise and manage waste and resource recovery during the demolition phase, construction phase and the post construction (operational) phase.

The SWMMP will describe;

- Volume and type of waste and recyclables to be generated
- Storage and treatment of waste and recyclables on the development site
- Disposal of residual wastes and reprocessing options for recyclables
- Procedures for post construction (operational) management after handover of the development

## 4.2 OBJECTIVES

The objective of the SWMMP is to provide a planning system to effectively manage waste and resource recovery associated with this development, including;

- Promote improved project management
- Minimise waste generation
- Maximise reuse and resource recovery
- Minimise the environmental impacts associated with residual waste generated by this development
- Ensure the appropriate storage and collection of residual waste

To ensure ongoing waste management systems are compatible with collection services offered by commercial waste transporters and the Northern Beaches Shire Council.

## 4.3 LEGISLATIVE DRIVERS

Table 1 - Environmental Legislation specific to waste management

Legislation/Guidelines	Description
<b>Protection of the Environment Operations Act 1997</b>	This Act is the primary NSW environment protection legislation covering air, noise, water, land and waste management
<b>Waste Avoidance and Resource Recovery Act 2001</b>	Sets NSW framework for waste hierarchy and allows the preparation of waste strategies addressing specific waste streams and setting landfill diversion and resource recovery targets
<b>Waste Avoidance and Resource Recovery Strategy 2007</b>	Proposes priority areas for waste management and resource recovery. Details current targets
<b>Northern Beaches Development Control Plan 2013, Part 3N: Waste Minimisation and Management</b>	Aims to facilitate sustainable waste management within the Northern Beaches Shire LGA in a manner consistent with ESD principles.
<b>Model Waste Not DCP Chapter 2008 (DECC)</b>	Provides a framework chapter for NSW LGA's to address Waste Not DCP
<b>Better Practice Guide for Waste Management in Multi Unit Dwellings 2002 (Resource NSW)</b>	Provides guideline for addressing waste management in medium or high density residential developments



# 5 DEMOLITION

## 5.1 GENERAL OUTLINE

The management of the site will be the responsibility of the project manager, who will administer waste handling systems, as specified by the Northern Beaches Shire Council, WorkSafe and as detailed in this report.

The demolition phase of this development is to comply with the aims and objectives outlined in Section 3 of this report.

The demolition phase involves the demolition of an existing residential dwelling house building, associated light infrastructure, site clearing, and excavation.

## 5.2 WASTE AVOIDANCE, MINIMISATION AND CONTROL STRATEGIES

In relation to site clearance and excavation activities, specialised waste disposal & treatment contractors will be selected who are appropriately licenced, and have demonstrated experience in maximising resource recovery. The following control strategies will be implemented during the demolition phase;

- All demolition will be conducted in accordance with requirements of the WorkSafe Authority and Australian Standard 2601-1991 *The demolition of structures*
- Any asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with the WorkSafe Authority and Environmental Protection Authority
- Re-use excavated materials on-site and disposal of excess to an approved site
- All salvaged material will be removed manually; hydraulic excavators will remove the remainder
- Allocation of an assigned area within the development site to be identified for stockpiling of segregated recyclable materials (for materials to be re-used on-site) and for staging areas for transport to off-site re-processing facilities
- All skip and bulk bins will be located within the assigned area, clearly identified for each material, and not impeding on the footpath or road reserve
- Project manager to retain all weighbridge or re-processing facility dockets to ensure responsible disposal and recycling options are being employed by contractors
- All waste generated is to be documented and handled in accordance with Table 2 *Demolition Volumes and Reuse/Recycling Potential*
- At the excavation stage, the frontage to Riverview Road will be utilised as the site access. The excavated material, not used on site, will be loaded onto trucks and transported to an approved landfill site or another suitable location.

**Table 2 - Demolition Volumes and Reuse/Recycling Potential**

<b>Materials</b>	<b>Document Volume (m<sup>3</sup>)</b>	<b>On-Site</b>	<b>Off-Site</b>	<b>Disposal</b>
Hardwood	3	Separated	Sold for re-use	Second hand supplier
Other Timber	2	Separated	Chipping for mulch/fuel	Green waste re-processing facility
Doors, Windows	3	Separated	Sold for re-use	Second hand supplier
Steel	4	Nil	To metal recyclers	Metal recycling
Downpipes, Gutters	2	Nil	To metal recyclers	Metal recycling
Ceramic Tiles	2	Cleaned and separated	Sold for re-use	Recycling facility/second hand supplier
Green Waste	9	Composted or mulched	Nil	Green waste re-processing facility
Concrete	4	Re-used as sub-base / fill	Concrete crushing	Quarry or landfill licenced to crush concrete
Bricks	4	Broken brick for fill. Whole bricks to be cleaned and salvaged	Recycling company	Quarry or landfill licenced to crush bricks/masonry. Or Second hand supplier
Plasterboard	3	Separated	Recycling company	Licenced re-processing facility. Or return to supplier
General Waste	2	Nil	Nil	Licenced waste facility
Other Wastes	1	Separated	Nil	Licenced waste Facility

# 6 CONSTRUCTION PHASE

## 6.1 GENERAL OUTLINE

The management of the site will be the responsibility of the project manager, who will administer waste handling systems, as specified by Northern Beaches Shire Council, WorkSafe and as detailed in this report.

The construction phase of this development is to comply with the aims and objectives outlined in Section 3 of this report.

The construction phase will involve the construction of a multi-level residential dwelling house, garage, swimming pool and associated site works.

## 6.2 WASTE AVOIDANCE, MINIMISATION & CONTROL STRATEGIES

To reduce the amount of waste on site during construction of the development the following control strategies will be required of all contractors and/or personnel:

- Order materials to size
- Avoid over-ordering
- Order pre-cut or pre-fabricated materials
- Reduce packaging at source or products with minimal packaging
- Where possible materials to be re-used on site or shipped to recycler
- All salvaged material will be removed manually; hydraulic excavators will remove the remainder;
- Allocation of an assigned area within the development site to be identified for stockpiling of segregated recyclable materials (for materials to be re-used on-site) and for staging areas for transport to off-site re-processing facilities;
- All skip and bulk bins will be located within the assigned area, clearly identified for each material, and not impeding on the footpath or road reserve;
- Project manager to retain all weighbridge or re-processing facility dockets to ensure responsible disposal and recycling options are being employed by contractors;
- All waste generated is to be documented and handled in accordance with Table 3 Construction Volumes and Reuse/Recycling Potential

**Table 3 - Construction Volumes and Reuse/Recycling Potential**

Materials	Document Volume (m <sup>3</sup> )	On-Site	Off-Site	Disposal
Hardwood	4	Separated	Sold for re-use	Second hand supplier
Other Timber	4	Separated	Chipping for mulch/fuel	Green waste re-processing facility
Doors, Windows	0	Separated	Sold for re-use	Second hand supplier
Steel	3	Nil	To metal recyclers	Metal recycling
Downpipes, Gutters	1	Nil	To metal recyclers	Metal recycling
Ceramic Tiles	1	Cleaned and separated	Sold for re-use	Recycling facility/second hand supplier
Green Waste	3	Composted or mulched	Nil	Green waste re-processing facility
Concrete	2	Re-used as sub-base / fill	Concrete crushing	Quarry or landfill licenced to crush concrete
Bricks	2	Broken brick for fill. Whole bricks to be cleaned and salvaged	Recycling company	Quarry or landfill licenced to crush bricks/masonry. Or Second hand supplier
Plasterboard	2	Separated	Recycling company	Licensed re-processing facility. Or return to supplier
General Waste	5	Nil	Nil	Licensed waste facility
Other Wastes	2	Separated	Nil	Licensed waste Facility

Note: During construction, all waste materials will be separated and temporarily stored on-site. It is proposed all such materials will either be recycled or disposed of as per Table 2 Demolition Volumes and Reuse/Recycling Potential.

# 7 POST CONSTRUCTION (OPERATIONAL) PHASE

The following assessment of waste volumes is an estimate only and will be influenced by building management, cleaning arrangements, individual tenant’s attitude and obligation regarding waste disposal and recycling.

## 6.1 WASTE AND RECYCLING GENERATION RATES

Waste and recycling generation rates are taken from the Northern Beaches Council Website.

Table 4 - Residential Generation Rates

Waste Type	Number of Dwellings	Waste generation rate (L per dwelling per week)	Waste generated (L)	Frequency of Servicing per week	Bins Required
Garbage	1	80	80	Weekly	1 x 140 L MGBs
Containers	1	70	70	Fortnightly	1 x 140 L MGBs
Paper	1	70	70	Fortnightly	1 x 140 L MGBs
Green Waste	1	240	240	Weekly	1 x 240 L MGBs

## 6.2 STORAGE

The storage of residential waste will be within the kitchen area, within the cupboard area identified in the kitchen plan of the submitted plans. The room will be adequately ventilated, well lit, and appropriately signposted to distinguish paper/cardboards recycling bins from container recycling bins and residual waste (garbage) bins.

An outside area for the storage of Council’s waste, recycling and greenwaste bins has been shown in the submitted plans. A tap and drainage with connection to the sewer are to be provided within a reasonable distance to the garbage storage area.

The size of the area will be sufficient to house the recommended number of mobile garbage bins for the development, as well as incorporating a minimum clearance of 300mm between each mobile garbage bin.

The location of the garbage bin storage area has been designed to be easily accessible to the garbage collection points (kerbside) on Byron Street. The garbage bin storage area will not affect the amenity of any adjacent properties and has been designed as an integrated part of the overall design.

### **6.3 SERVICING (COLLECTION)**

The owner/tenant will ensure that all bins are prepared and presented within an allocated area at the front of the property as approved by Council's waste contractors. An area has been identified on the submitted plans.

Bins will be returned to the garbage storage area as soon as practicable following servicing.

### **7.5 BULKY WASTE**

The development will provide adequate space for residents to temporarily store unwanted bulky items until suitable disposal/transport options can be arranged.

### **7.6 GREEN WASTE**

Green waste figures shown in Table 3 are a maximum amount and can be reduced through the future tenants practices and potential onsite disposal of green waste material via compost bin or similar.



Appendix A

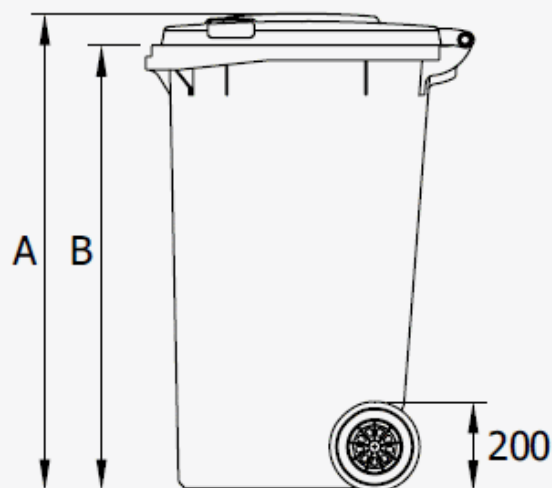
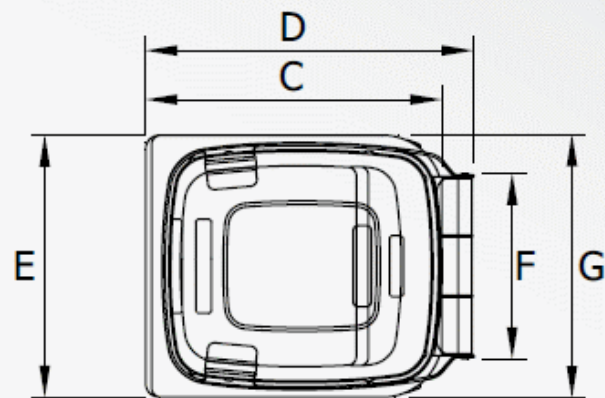
# Waste Management Equipment

## Dimensions - Weights - Standards

■ Nominal volume:	240 litres
■ Net weight:	approx 13 kg
■ Max load:	96 kg
■ Permitted total weight:	110 kg

■ A	1060 mm	■ D	730 mm	■ G	550 mm
■ B	990mm	■ E	585 mm		
■ C	660 mm	■ F	400 mm		

Measurements to be used as a guide only – variations will occur





## Dimensions - Weights - Standards

■ Nominal volume:	140 litres
■ Net weight:	approx 10.4 kg
■ Max load:	56 kg
■ Permitted total weight:	70 kg

■ A	915 mm	■ D	615 mm	■ G	505 mm
■ B	870 mm	■ E	535 mm		
■ C	550 mm	■ F	395 mm		

Measurements to be used as a guide only – variations will occur

