

# **WASTE MANAGEMENT PLAN**

**Prepared for**

**Northern Beaches Essential Services Accommodation**

**16 Wyatt Avenue, Belrose**

May 2021

## **1.0 GENERAL**

### *1.1 General*

This document comprises a Waste Management Plan for the proposed development at 16 Wyatt Avenue, Belrose. It describes 3 stages of waste development – Demolition, Construction, and Operation - and the management of waste in each case. This report should be read in conjunction with the associated Development Application drawings & consultant reports.

### *1.2 Description of development*

The subject site is located within the Northern Beaches Council local government area. The site is currently occupied by a two-storey brick detached house, located approximately in the front portion of the lot, and two metal stables located approximately on the rear of the lot, with the site area being approximately 9342m<sup>2</sup>. The proposal aims to develop a boarding house on the lot composed of two buildings, with the upper building containing 22 boarding rooms plus 1 caretaker unit, and the lower building containing 39 boarding rooms. The project aims to reuse as much of excavated rock as possible. It is not anticipated that any asbestos or fibrous material will be found. However if they were to come across the NSW Code of Practice for Hazardous Materials handling would be adhered to.

### *1.3 List of waste & recycling depots in vicinity*

Kimbriki Resource Recovery Centre  
Kimbriki Rd  
Terrey Hills  
Ph 9486 3512

Greenwood Landfill  
447 Mona Vale Rd  
St. Ives  
Ph 9144 4700

Benedict Recycling  
End of Challenger Drive  
Belrose  
Ph 9450 2412

## **2.0 DEMOLITION WASTE**

### *2.1 General*

The aim will be to transport from site and recycle what can be recycled, however if recycling proves to be not an option, the leftover material is to be landfilled off site in depots. The bulk of the demolition waste is anticipated to be a mixture of brick, blockwork, concrete (including platform the existing house sits on), structural timber roof frame, timber softboard lining and terracotta roof tiles, most of which can be deposited at a recycle depots for downcycle.

### 2.2 Reuse on site

It is aimed that the excavated rock will be reused as much as possible, but not envisaged to reuse any of the demolished material from the existing house on site during construction, unless specified later during the CC stage.

### 2.3 Asbestos

It is not anticipated that any asbestos or fibrous material will be found. However, there is a chance that asbestos can be found within the demolished house. If it were to come across, the NSW Code of Practice for Hazardous Materials handling would be adhered to.

### 2.4 Off-site recycling & disposal

Anticipated quantities of demolition waste and methods of their disposal or reuse are outlined in the tab below:

Material Type	Estimated volume	Recycled on-site	Recycled off-site	Disposed off site
Excavation – top soils	n/a			
Garden Organics	24m <sup>3</sup>		Kimbriki Resource Recovery Centre	
Bricks/masonry	42m <sup>3</sup>		Kimbriki Resource Recovery Centre	
Tiles	30 m <sup>3</sup>		Kimbriki Resource Recovery Centre	
Concrete	60 m <sup>3</sup>		Benedict Recycling	
Timber	10 m <sup>3</sup>		Kimbriki Resource Recovery Centre	
Plasterboard	18 m <sup>3</sup>		Kimbriki Resource Recovery Centre	
Metals	6 m <sup>3</sup>		Kimbriki Resource Recovery Centre	
Asbestos	n/a <sup>***</sup>	***no asbestos anticipated to be found		If found
Other Waste			Kimbriki Resource Recovery Centre	

## 3.0 CONSTRUCTION WASTE

### 3.1 General

The Construction Management Plan will be implemented to ensure only the standard amount of waste is generated throughout construction. At the moment, the buildings are deemed to be a two-floor lightweight timber framed structure on a concrete slab. Prior to CC, construction methods will be more detailed and the estimated wastage can be updated.

Table below outlines the estimated volume of waste products generated during construction. Once construction method is established, the schedule should be updated. Figures in this section were calculated as per 'Chapter 2 – Construction' of the Waste Management Guidelines, however the resulting numbers have been reduced in order to reflect the nature of the development – mainly the fact that each boarding room is approximately one third of the size of a standard two bedroom unit.

3.2 TABLE B - CONSTRUCTION WASTE ESTIMATES

Material Type	Estimated volume	Recycled on-site	Recycled off-site	Disposed off site
Excavation – top soils	100 m3	To be reused for landscaping and fill, excessive to be disposed		Benedict Recycling or Greenwood Landfill
Excavation – sand stone bedrock	2400 m3	To be reused for landscaping, excessive to be recycled	Kimbriki Resource Recovery Centre	
Garden Organics	n/a*	*depending on amount of trees for removal	Kimbriki Resource Recovery Centre	
Bricks/masonry	n/a**	**only face brickwork used in the development		
Tiles	30 m3		Kimbriki Resource Recovery Centre	
Concrete	40 m3		Benedict Recycling	
Timber	60 m3		Kimbriki Resource Recovery Centre	
Plasterboard	30 m3		Kimbriki Resource Recovery Centre	
Metals	10 m3		Kimbriki Resource Recovery Centre	
Asbestos	n/a***	***no asbestos anticipated to be found		
Other Waste	20 m3****	****mainly façade cladding waste	Kimbriki Resource Recovery Centre	

## 4.0 OPERATIONAL WASTE

### 4.1 General

All operational waste will be collected by the Council's waste management service. Given the configuration of the Boarding House consisting in two independent buildings, waste will be kept in two different bin storage rooms.

4.1.1 Upper building: Bin storage room will be located externally from the building, in the front portion of the lot and accessible to all residents and bins will be pulled to the kerbside of Wyatt avenue, where they will await collection.

4.1.2 Lower building: Bin storage room will be located in the basement, accessible to all residents and bins will be loaded onto a utility vehicle and driven to the kerbside of Wyatt avenue, where they will await collection.

### 4.2 Rubbish bin calculation

The total amount of operational bins required is calculated as per the current Northern Beaches Council Waste management guidelines, details below:

a) *The landscaped area of the site is 6315sqm, of which approximately 4315sqm will be remained as bushland and 2000sqm will be grassed landscaped area. For the purpose of this calculation, the landscaped area will be considered 2000sqm.*

1x 240L bin required per 200 sqm of landscaped area =  $2000\text{sqm (landscaped area)} / 200\text{sqm} = 10$  x 240L (240L bin) = 2400L / 660L (660L bin) = 3.63 rounded up to 4x 660L bin dedicated to green landscape waste.

b) The Northern beaches Council Waste Management Guidelines do not provide a garbage generation rate value for boarding houses (refer to Figure 1 below). After careful consideration and comparison with existing boarding house on Linden avenue, Belrose, it has been established that a 25 sqm boarding room including a kitchenette and an ensuite would produce maximum of 25L of waste a day. The calculation then follows  $61 \text{ (units)} * 25\text{L} * 7 \text{ (days)} / 240\text{L (240L bin)} =$  45x 240L bin dedicated to operational use of lodgers.

To summarise, it has been calculated that the total of 4x 660L bins for green landscape waste and 45x 240L bins for operational waste generated by the lodgers is deemed satisfactory for the proposed development to comply with council's guidelines, provided the waste is collected on a weekly basis.

## 5.4. Estimating non-residential waste generation rates

The table below provides estimates of likely waste generation rates for non-residential development types.

Type of premises	Garbage generation rate	Recycling generation rate
<b>Assembly Rooms</b>		
• <b>Social</b>	50L/100m <sup>2</sup> floor area/day	10L/100m <sup>2</sup> floor area/day
• <b>Recreational</b>	50L/100m <sup>2</sup> floor area/day	10L/100m <sup>2</sup> floor area/day
• <b>Religious</b>	50L/100m <sup>2</sup> floor area/day	10L/100m <sup>2</sup> floor area/day
• <b>Entertainment</b>	0.25L/100m <sup>2</sup> floor area/day	0.05L/100m <sup>2</sup> floor area/day
<b>Automotive repair and service</b>	3350L/100m <sup>2</sup> floor area/day (combined garbage and recycling)	
<b>Backpackers accommodation</b>	6L/100m <sup>2</sup> floor area/day	3L/100m <sup>2</sup> floor area/day
<b>Banks</b>	5L/100m <sup>2</sup> floor area/day	25L/100m <sup>2</sup> floor area/day
<b>Boarding houses</b>		
<b>Book shop</b>	40L/100m <sup>2</sup> floor area/day	20L/100m <sup>2</sup> floor area/day

Figure 1: Extract from the Northern Beaches Waste management guidelines, showing no figure at Boarding houses

### 4.3 Description of waste storage areas

4.3.1 Upper building: Bin storage room will be located externally from the building, in the front portion of the lot, no closer than 3m from any dwelling openings, roofed with and following the minimum wall and ceiling heights as per waste management guidelines and requirements for external waste storage areas.

4.3.2 Lower building: Bin storage room will be located in the basement, following all waste management guidelines and requirements for internal waste storage areas.

The Bin rooms accommodate the above calculated amount of bins plus extra room for bulky waste as required in the Northern Beaches Council Waste management guidelines. The designated bin rooms will be accessible to all residents and clearly signposted and lit. The bin rooms are to contain a tap and hose and the floor is to be graded and drained to the sewer, external room to be naturally ventilated and basement room to be mechanically ventilated.

### 4.4 Waste management strategy

The lodgers of the boarding house will utilize the garbage rooms for all general garbage including the recyclable components of this waste. The caretaker of the development will be responsible for moving bins to the point of collection and back.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'B. Gough'. The signature is fluid and cursive, with a large loop at the end of the 'h'.

Bridie Gough  
Director  
Arb No. 8280