

# DICKENS SOLUTIONS

(REF – 22108)

## WASTE MANAGEMENT PLAN

## FREEDOM DEVELOPMENT GROUP

### PROPOSED RESIDENTIAL DEVELOPMENT

@  
59 TINDALE STREET  
MUSWELLBROOK  
(STAGE 2)

MARCH 2023

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# **PART 1 – OVERVIEW AND PROPOSAL**

## **1.1 INTRODUCTION**

This Waste Management Plan (WMP) is an operational plan that describes in detail the manner in which all waste and other materials resulting from the construction and on-going use of the building on the site are to be dealt with.

The aims and objectives of this WMP are to: -

- a) Satisfy all State and Local Government regulatory controls regarding waste management and minimisation practices,
- b) Promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building,
- c) Maximise waste reduction, material separation, and resource recovery in all stages of the development,
- d) Ensure the design of waste and recycling storage facilities are of an adequate size, appropriate for the intended use of the building, hygienic with safe and manoeuvrable access, and,
- e) Ensure that the provision of waste and recycling services to the completed building is carried out in an efficient manner, which will not impact negatively on the health, safety and convenience of all stakeholders.

This WMP is prepared in accordance with: -

- Muswellbrook Local Environment Plan 2009,
- Muswellbrook DCP 2009,
- All conditions of the development consent to be issued under the approved Development Consent,
- The 'Better Practice Guide for Resource Recovery in Residential Buildings published by the NSW EPA (April 2019), and,
- The objective of ensuring that all waste management facilities and collection services will provide an outcome that will be effective and efficient, as well as promote the principles of health, safety and convenience.

This Waste Management Plan (WMP) has been prepared for the submission of a Development Application to Muswellbrook Shire Council for Stage 2 of a residential development at 59 Tindale Road, Muswellbrook, for the construction of thirty (30) single storey attached residential buildings.

This WMP is dated 21 March 2023, and has been prepared as part of the DA Package to be submitted to Council for the proposal.

## **1.2 PROPERTY DESCRIPTION**

This Waste Management Plan (WMP) has been specifically designed for the development described below: -

<b>DESCRIPTION</b>	<b>Residential Development</b>
<b>PROPERTY DESCRIPTION</b>	<b>The development is to be constructed over one (1) large allotment of land at Lot 2, DP 1070178, No 59 Tindale Road, Muswellbrook.</b>
<b>STREET ADDRESS</b>	<b>59 Tindale Road, Muswellbrook.</b>
<b>AREA</b>	<b>18,070sqm (Approx.)</b>
<b>ZONING</b>	<b>Zone R1 – General Industrial</b>
<b>PLANNING INSTRUMENTS</b>	<b>Muswellbrook LEP 2009 Muswellbrook DCP 2009</b>

The site is a large allotment of land located on the southern side of Tindale Road, Muswellbrook, between Nowland Street to the west and Fitzgerald Avenue to the east. It is approximately 500m south-west of the New England Highway, which runs through the Muswellbrook town centre, with the Northern NSW Railway line and Muswellbrook railway station located within the town centre.

The land upon which the development is proposed is currently vacant.

The immediate surrounding development consists primarily of low-density residential housing subdivision to the south.

The township of Muswellbrook is located in the Upper Hunter region of NSW, approximately 80km north-west of Newcastle and two (2) and a half hours north-west of Sydney.

## **1.3 APPLICANTS DETAILS**

<b>APPLICANT</b>	<b>Freedom Development Group Pty Ltd C/- Mr Edward Fernon</b>
<b>ADDRESS</b>	<b>PO Box 446, Drummoyne. NSW. 1470.</b>
<b>TELEPHONE</b>	<b>1300 207 733</b>
<b>E-MAIL</b>	<b><a href="mailto:edward@freedomdevelopment.com.au">edward@freedomdevelopment.com.au</a></b>

## **1.4 PROPOSAL**

The proposal involves Stage 2 of a residential development at 59 Tindale Road, Muswellbrook, for the construction of thirty (30) single storey attached residential buildings.

Access to and from the site will be from Tindale Street at the northern frontage of the of the site.

All waste storage facilities will be provided in dedicated Bin Storage Area located on the western side of the site as indicated on the Architectural Drawings and as detailed herein.

All waste and recycling collections will take place from the Tindale Street kerbside. Muswellbrook Shire Council will provide all waste, recycling and green waste services to the complex.

The project consists of: -

- a) The refurbishment of all existing building and the removal of materials excess to construction requirements,
- b) Construction works,
- c) The provision of landscaping, driveways, concrete pathways, sewer and water services, other elements associated with the development, and,
- d) The on-going use of the building.

## **PART 2 – DEMOLITION**

### **2.1 GENERAL PROVISIONS**

There is no demolition component to this Waste Management Plan (WMP). All works in relation to the refurbishment and construction requirements of all existing buildings on the site will be dealt with in Part 3 of this WMP.

## **PART 3 – CONSTRUCTION**

### **3.1 CONSTRUCTION – GENERALLY**

Upon completion of all demolition works, construction of the buildings will commence with site excavation works. All materials sourced from these activities will be disposed of in accordance with the information provided in Part 3.2 on pages 7, 8, 9, 10, 11 and 12 of this WMP.

Additionally, all materials used in the construction of the building that are not required to be incorporated into it, shall be recycled, reused or disposed of in accordance with these provisions, and the requirements of the Protection of the Environment Operations Act (1997). It will be the developer's overall responsibility to ensure compliance in this regard.

Mobile Bins of an appropriate size will be located on site for the collection of food scraps, beverage containers, and other waste generated on site by workers.

### **3.2 CONSTRUCTION – RECYCLING, REUSE & DISPOSAL DETAILS**

The following details prescribe the manner in which all materials surplus to the construction of the building will be dealt with, and includes: -

- a) An estimate of the types and volumes of waste and recyclables to be generated;
- b) A site plan showing sorting and storage areas for construction waste and vehicle access to these areas (see Part 3.3 of this Plan);
- c) How excavated and other materials surplus to construction will be reused or recycled and where residual wastes will be disposed (see below); and,
- d) The total percentage of construction waste that will be reused or recycled.

#### **1. Excavated Materials**

Volume / Weight	200 cubic metres / 340 Tonnes
On Site Reuse	Yes. Keep and reuse topsoil for landscaping. Shore on site. Use some for support of retaining walls (Excavated Materials are only to be used if the material is not contaminated or has been remediated in accordance with any requirements specified by any Environmental Consultancy engaged to carry out any contamination assessment of excavated material).
Percentage Reused or Recycled	To be determined
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.

## **2. Bricks**

Volume / Weight	10 cubic metres / 10 Tonnes
On Site Reuse	Clean and remove lime mortar from bricks. Re-use in new footings. Broken bricks for internal walls. Crush and reuse as drainage backfill. Crushed and used as aggregate.
Percentage Reused or Recycle	75% - 90%
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.

## **3. Concrete**

Volume / Weight	10 cubic metres / 24 Tonnes
On Site Reuse	Existing driveway to be retained during construction. Crushed and used as aggregate, drainage backfill.
Percentage Reused or Recycled	60% - 75%
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.

## **4. Timber**

Volume / Weight	8 cubic metres / 2 Tonnes
On Site Reuse	Re-use for formwork and studwork, and for landscaping
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.

## **5. Plasterboard & Fibro**

Volume / Weight	5 cubic metres / 5.25 Tonnes
On Site Reuse	Nil – all to be disposed of off-site.
Percentage Reused	To be determined
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.



## **6. Metals / Steel / Guttering & Downpipes**

Volume / Weight	6 cubic metres / 1.5 Tonnes
On Site Reuse	No
Percentage Reused or Recycled	60 – 90%
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.

## **7. Roof Tiles / Tiles**

Volume / Weight	8 cubic metres / 6 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycled	80% - 90%
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.

## **8. Plastics**

Volume / Weight	3 cubic metres / 0.5 Tonne
On Site Reuse	Nil
Percentage Reused or Recycled	80% - 95%
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.

## **9. Glass, Electrical & Light Fittings, PC items**

Volume / Weight	5 cubic metres / 3 Tonne
On Site Reuse	No
Percentage Reused or Recycled	70% - 90%
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.

**10. Fixture & Fittings (Doors Fittings, Other Fixtures, etc.)**

Volume	5 cubic metres / 1.75 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.

**11. Pallets**

Volume / Weight	5 cubic metres / 2.5 Tonne
On Site Reuse	No
Percentage Reused or Recycle	90% - 100%
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.

**12. Residual Waste**

Volume / Weight	30 cubic metres / 30 Tonnes
On Site Reuse	No
Off Site Destination	Muswellbrook Waste Management Facility, Coal Road, Muswellbrook, Tel 02 6549 3852 or, Other approved facility.
Notes on calculation of volume of residual waste	<ol style="list-style-type: none"> <li>1. In calculating the amount of residual waste produced from the demolition of all buildings on site, it is estimated that approximately 10% of it, will be residual waste.</li> <li>2. As all of the materials vary in weight per volume, a figure of 1 cubic metre of material is equal to 1 tonne in weight has been used.</li> </ol>

It is noted that the quantities of materials detailed in this part (Part 3.2) are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of construction constraints, weather conditions, and any other unforeseeable activities associated with the construction of the building, which are beyond the control of the developer, including but not being limited to theft, accidents, and other acts of misadventure.

The facilities that have been nominated to receive the materials listed above have been identified within the NSW waste industry as being a facility or agency that will accept the materials specified in each respective table. The developer understands

that any costs associated with the transportation and receipt of these materials will be their responsibility.

The developer is under no obligation to use any nominated facility, but should any alternative arrangements be made, it will be the developers' responsibility to ensure that all materials removed from the site are disposed of, or processed, appropriately.

The developer will keep a written record of all documentation associated with the transportation, disposal and processing of all materials excess to the construction of the building.

Additionally, during the construction of the buildings, every effort will be made to reduce and minimise the amount of building materials excess to construction.

### **3.3 CONSTRUCTION – ON SITE STORAGE OF MATERIALS**

During the construction of the buildings, an area will be set aside on the site as a compound for the on-site storage of materials prior to their removal from the site. This compound will provide for: -

- Material sorting;
- Segregation of materials that may be hazardous and which will be required to be disposed of;
- Recovery equipment, such as concrete crushers, chippers, and skip bins;
- Material storage; and,
- Access for transport equipment.

Appropriate vehicular access will be provided on and off site, and to the compound, to enable the efficient removal of reusable, recyclables, and waste materials.

Prior to the commencement of construction works, the developer will provide Council with a 'Site Plan for the On-Site Storage of Materials at Construction'. This plan will show in detail the location of each area within the compound, set aside for the segregated storage of all materials involved in the demolition of all buildings on the site.

### **3.4 CONSTRUCTION – EXCAVATED MATERIAL**

All excavated material removed from the site, as a result of any activities associated with the construction of the buildings, must be classified in accordance with the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines prior to removal, transportation and disposal to an approved waste management facility.

All relevant details must be reported to the PCA.

## **PART 4 – ON GOING USE OF BUILDING**

### **4.1 OBJECTIVES**

1. To ensure that the storage, amenity and management of waste is sufficient to meet the needs of the development.
2. To ensure that all waste management activities are carried out effectively and efficiently, and in a manner, that promotes the principles of health, safety and, convenience.
3. To promote waste minimisation practices.

### **4.2 ASSUMPTIONS**

In preparing this proposal, the following assumptions have been made: -

1. The proposal involves Stage 2 of a residential development at 59 Tindale Road, Muswellbrook, for the construction of thirty (30) single storey attached residential buildings.
2. A dedicated Bin Storage Area is provided for the development and is located on the eastern side of the driveway adjacent to the front boundary of the site as indicated on the Architectural Drawings.
3. All waste and recycling bins will be stored within the confines of the Bin Storage Area at all times.
4. All waste and recycling generation rates have been calculated from information provided in Section 24 'Waste Minimisation and Management' of the Muswellbrook DECP 2009 – Appendix B 'Waste and Recycling Generation Rates'.
5. In order to meet Council's servicing requirements for the entire development, the following number of bins will be required:
  - a) 10 x 240-litre waste bins,
  - b) 10 x 240-litre recycling bins, and,
  - c) 2 x 240-litre green waste bins.
6. All waste services will be provided one (1) day per week.
7. All recycling services will be provided one (1) day per fortnight.
8. All green waste services will be provided one (1) day per fortnight on alternate days to the recycling services.
9. Muswellbrook Shire Council will provide all waste and recycling services to the development.
10. All waste and recycling services will be provided from the kerbside.
11. The Owners Corporation will appoint a Building Manager/Caretaker whose responsibility it will be to oversee all waste management activities for the entire development.

### **4.3 WASTE HANDLING & MANAGEMENT**

A cabinet will be located within each room or dwelling so that a receptacle, or receptacles, may be stored or housed in a convenient and practical location within the unit, for the reception of waste and recyclable material.

All residents of the villa units will be responsible for transporting and depositing waste and recycling material from all rooms and units into the appropriate bins within the Bin Storage Area.

All waste is to be placed in the red lidded waste bins. All recyclable material is to be placed in the yellow lidded recycling bins.

Unrestricted access to the Bin Storage Area will be provided at all times to all residents and occupants so that waste and recycling material can be deposited within the appropriate bins at any time.

### **4.4 WASTE & RECYCLING – SERVICE ARRANGEMENTS**

All waste and recycling materials will be stored in approved receptacles of an appropriate size as specified in this WMP.

The lids of the bins shall be closed at all times to reduce litter, stormwater pollution, odour and vermin.

The Council in general requires that colour coded receptacle lids that distinguish each service component are to be provided: -

- Waste Service – Red Lidded receptacle,
- Recycling Service – Yellow Lidded receptacle, and,
- Green Waste Service – Green Lidded receptacle.

### **4.5 WASTE & RECYCLING GENERATION RATES**

All waste and recycling generation rates have been calculated from information provided in Section 24 'Waste Minimisation and Management' of the Muswellbrook DECP 2009 – Appendix B 'Waste and Recycling Generation Rates'.

The following Table (Table 1) details all waste and recycling generation rates prescribed the DCP in relation to the proposed development.

**TABLE 1 – COMMERCIAL WASTE & RECYCLING GENERATION RATES**

SERVICE	LAND USE	WASTE & RECYCLING GENERATION RATES
Waste	Multi-Unit Dwellings (Villas)	80-litres of space per unit per week
Recycling	Multi-Unit Dwellings (Villas)	40-litres of space per unit per week
Waste	Multi-Unit Dwellings (Villas)	Optional Service – see below

#### **4.6 WASTE & RECYCLING SERVICE REQUIREMENTS**

The following Table (Table 2) details the service requirements for the multi-units.

Green waste services are not mandatory and due to the fact that there are only small landscaped and communal areas on the site.

**TABLE 2 – SERVICE REQUIREMENTS – BOARDING HOUSE ROOMS**

SERVICE TYPE	UNITS	BIN SPACE PER OCC	TOTAL SPACE REQUIRED	BINS SIZE	SERVICES PER WEEK	BINS REQUIRED	BINS PROVIDED
<b>Waste</b>	30	80	2,400	240	1	10.00	10
<b>Recycling</b>	30	40	1,200	240	0.5	10.00	10
<b>Green Waste</b>	Available upon request				0.5	2.00	2

## **4.7 PROVISION OF WASTE & RECYCLING SERVICES**

### **4.7.1 Waste and Recycling Collection Service Provider Details**

Muswellbrook Shire Council will provide all waste and recycling services to the building.

### **4.7.2 Details of Mobile Containers**

In relation to the size and design of the waste and recycling mobile bins, the following technical information is provided: -

CONTAINER TYPE	HEIGHT (metres)	DEPTH (metres)	WIDTH (metres)
240-litre mobile container	1.040	0.750	0.585

### **4.7.3 Location, Design, and Construction of Bin Storage Area**

All waste, recycling and green waste bins associated with the occupation and use of the development will be stored within the confines of a dedicated bin storage area.

The Bin Storage Area is a partially enclosed rectangular structure measuring 5.40m x 2.4m, with an aisle width of a minimum of 1.2m, and a floor area of 13sqm, with the height of the perimeter wall of 1.5m.

Within the confines of the Bin Storage Area is storage space for: -

- 10 x 240-litre mobile waste bins,
- 10 x 240-litre mobile recycling bins,
- 2 x 240-litre green waste bins.

All mobile bins will be stored within the confines of the Bin Storage Area at all times.

In assessing the size and design of the Bin Storage Area, it is considered that it is of a sufficient size and dimension to adequately store and manoeuvre all of the required number of bins and ancillary facilities.

### **4.7.4 Servicing Arrangements – Waste Collections**

All waste services will be provided by Muswellbrook Shire Council's waste and recycling collection contractor.

All waste services will be provided from the kerbside, where respective bins will be transported from the bin storage area.

The waste bins will be serviced one (1) day per week on a day to be determined by Council.

All 10 x 240-litre waste bins will be presented for servicing on each collection day.

The bins will be returned to the bin area as soon as servicing has been completed.

#### **4.7.5 Servicing Arrangements – Recycling Collections**

All recycling services will be provided by Muswellbrook Shire Council's waste and recycling collection contractor.

All recycling services will be provided from the kerbside, where respective bins will be transported from the bin storage area.

The recycling bins will be serviced one (1) day per fortnight, on a day to be determined by Council, on alternate weeks to the green waste service.

All 10 x 240-litre recycling bins will be presented for servicing on each collection day.

The bins will be returned to the bin area as soon as servicing has been completed.

#### **4.8.6 Servicing Arrangements – Green Waste Collections**

All green waste services will be provided by Muswellbrook Shire Council's waste and recycling collection contractor.

All green waste services will be provided from the kerbside, where respective bins will be transported from the bin storage area.

The green waste bins will be serviced one (1) day per fortnight, on a day to be determined by Council, on alternate weeks to the recycling service.

Both 240-litre green waste bins will be presented for servicing on each collection day.

The bins will be returned to the bin area as soon as servicing has been completed.

#### **4.8 ON GOING OPERATION, USE & MAINTENANCE OF WASTE MANAGEMENT FACILITIES**

All waste management facilities will be maintained in a clean and hygienic condition that will promote the principles of health, safety and convenience.

In order to achieve these objectives, the following facilities and devices will be required: -

1. The walls and floors of the Bin Storage Area are to be constructed of smooth faced masonry or concrete, and all walls will be painted with light coloured and washable paint.
2. The junction between all floors and walls will be coved and sealed up to 100mm above the floor level, in order to eliminate the build-up of dirt and grime.
3. A floor waste, connected to the water drainage system in accordance with the relevant water authority's requirements, will be provided to the Bin Storage Area with the floor graded to drain into it.
4. Appropriate washing facilities will be provided to the Bin Storage Area, including appropriate plumbing and drainage fixtures and fittings, and the provision of running water.
5. The Bin Storage Area is to be washed and cleaned on a regular basis.
6. All mobile bins will be washed and cleaned on a regular basis.
7. All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.



8. Natural and mechanical ventilation will be required to be installed within all chute rooms and Bin Storage Area, in accordance with the relative provisions of the Building Code of Australia.
9. Appropriate signage will be erected in a prominent place providing instruction to employees on how to use waste and recycling facilities, including what is and what is not recyclable.

## **PART 5 – SUMMARY**

### **5.1 SUMMARY**

In summarising this proposal, the following information is provided:

1. This Waste Management Plan (WMP) has been developed and documented in to ensure that all waste management activities will be conducted in accordance with Councils waste management DCP's and guidelines, and The Better Practice Resource Recovery Guide for Residential Buildings (April 2019).
2. All waste and recycling services to the serviced apartments will be provided by Muswellbrook Shire Council.
3. The Building Owner will be responsible for ensuring that all ongoing waste management activities are carried out in accordance with the provisions of this WMP.
4. The WMP aims to promote the use of recyclable materials in the construction, and on-going operation of the building.
5. The WMP aims to ensure the design of waste and recycling storage facilities are of an adequate size, appropriate for the intended use of the building, hygienic with safe and manoeuvrable access.
6. The WMP aims to ensure that the provision of waste and recycling services to the completed buildings are carried out in an efficient manner, which will promote the principles of health, safety, and convenience.

The measures set out in this WMP aim to demonstrate that all such activities will be carried out effectively and efficiently, in a healthy, safe and convenient manner, to acceptable community standards, and to the requirements of Muswellbrook Shire Council.

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