Archer Consultants Pty Ltd

PH: 02 7227 9360 ABN: 79 661 164 683

56 Pringle Ave, Bankstown NSW 2200

COMBINED DEMOLITION/CONSTRUCTION & OPERATIONAL WASTE MANAGEMENT PLAN

Proposed Mixed-Use Development

Client - Artiva Architects & Project Managers

Revision - 1A

Prepared for - City of Canterbury Bankstown - April 2025

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INTRODUCTION

Archer Consultants Pty Ltd was engaged by Artiva Architects & Project Managers to prepare a Waste Management Plan (WMP) for approval of a proposed mixed-use development at 56 Pringle Avenue, Bankstown NSW 2200 (Sydways 300 A5).

The proposed development consists of demolishing the existing structures on site and constructing a meditation centre and a separate2 bedroom dwelling.

In the course of preparing this WMP, the subject site and its environs have been inspected, plans of the development examined, and all relevant council requirements and documentation collected and analysed.

This WMP has been prepared based on the following information:

- Architectural Plans provided by Artiva Architects.
- City of Canterbury Bankstown Waste Management Guide for New Developments.
- NSW (EPA) Better Practice Guide for Resource Recovery in Residential Developments (2019).

The subject site is located on the eastern side of Pringle Avenue and the nearby land uses are mainly residential.

Figure 1 provides an overview of the area, and its surrounding land uses whilst **Figure 2** provides an aerial view of the immediate area surround the subject site.

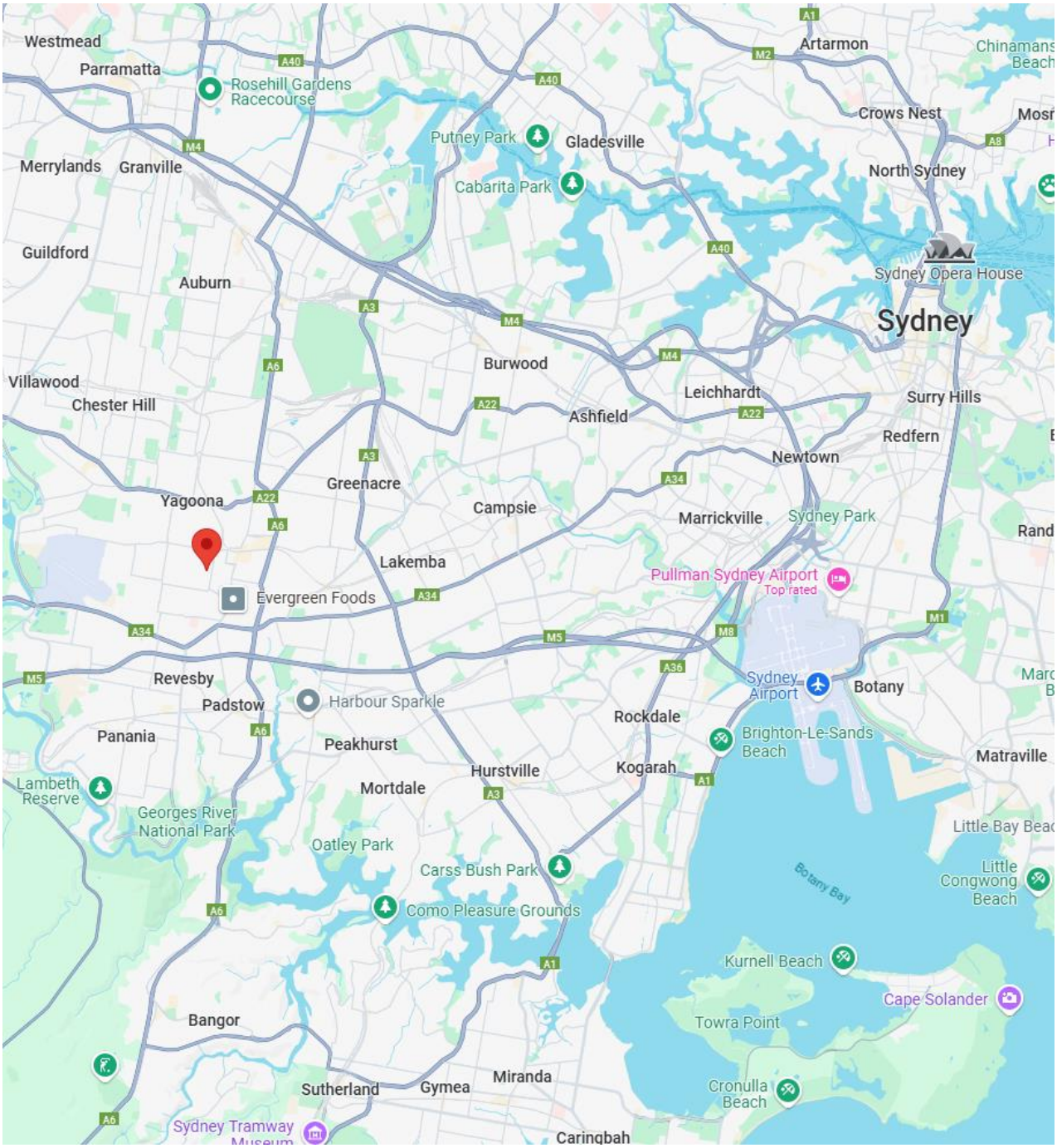


Figure 1: **Subject Site Location** *source: Google Maps*

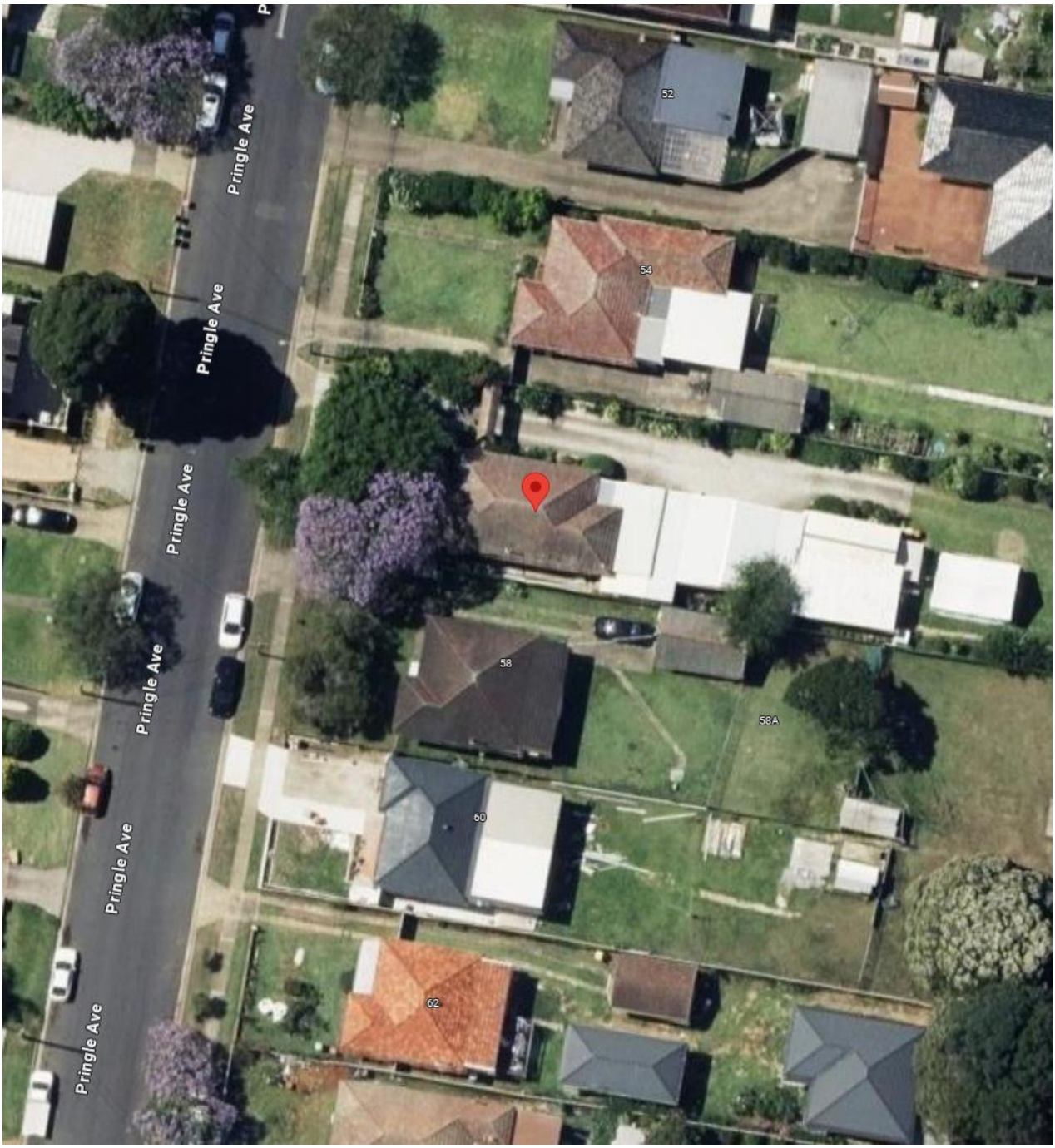


Figure 2: Subject Site Aerial View *source: Google Maps*

WASTE MANAGEMENT PRINCIPLES

When dealing with waste, the following hierarchy has been adopted, prioritising from left to right;

Avoid/Reduce

Particularly during the construction phase, avoidance of waste will be achieved through:

- Selecting design options with the most efficient use of materials;
- Selecting materials with minimal wastage, such as prefabricated materials.

Reuse

Some of the materials encountered in the demolition stage can be recovered and reused both on-site and off-site. This will be practiced wherever possible. Reusable materials shall be appropriately stored to avoid damage from weather or machinery.

Recycle

Similarly, many materials form the demolition stage will be recyclable. These materials will be identified prior to demolition, and a system incorporated to efficiently separate reusable materials, recyclable materials and disposable materials. Recyclable materials shall be appropriately stored to avoid damage from weather or machinery. Details and receipts verifying the recycling of these materials shall be kept present on site at all times.

Disposal

The waste disposal contractor chosen for the job will comply with Council's DCP. Details and receipts verifying the disposal of these materials shall be kept present on site at all times.

Handling

When handling waste on-site, the system (including bin placement, volumes, and access) shall be designed with the following factors in mind:

- Safety (highest priority);
- Ease of use; and
- Aesthetics.

Stockpiling

Waste sorting areas and vehicular access on-site during demolition and construction shall be adequately maintained. The material (demolition material, excavation material, construction material and waste) stockpiling area shall always remain within the site boundary and relocate during different demolition and construction stages as necessary. The waste area shall be largely located at the front of the site. This is to maintain easy access and removal of waste. The stockpiling area shall not infringe on access to the site, however. Hoardings shall bind the site perimeter; therefore, the waste shall not be visible from the street.

DEMOLITION & CONSTRUCTION STAGE

The proposal consists of the demolition of the existing structures on site and construction of a meditation centre and 2 bedroom unit.

Demolition Works

It should be noted that the demolition stage has the greatest potential for waste minimisation, particularly in facility is in Sydney where there are high levels of development, relatively high tipping charges and where alternative quarry materials are located on the outskirts.

The contractor should consider 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.

Councils are typically seeking to move from the attitude of straight demolition to a process of selected deconstruction, i.e. 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).

Site contractors should demonstrate project management which seeks to:

- Re-use of excavated material on-site and disposal of any excess to an approved site;
- Green waste 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.
  NOTE: Disposal of hazardous chemicals is regulated and must be tracked (Certified Trackable Waste Transporter) under the chain of custody and chain of responsibilities, philosophies with the site manager ultimately responsible for logistics and all waste generated on site;
- 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.

Construction Works

The following measures shall be considered during the construction stage in order to save resources and minimise waste:

- 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; and
- Co-ordination/sequencing of various trades.

ESTIMATING WASTE QUANTITIES

There are many simple techniques to estimate volumes of construction and demolition waste. The sequence of steps provided below can be used as a guide;

1) Quantify materials for the project
2) Use margin normally allowed in ordering
3) Copy these amounts of waste into your waste management plan

When estimating waste generation, the following percentages can be used as a “rule of thumb” practice;

Materials	Percentage of Waste / Total Materials Ordered
Timber	5-7%
Plasterboard	5-20%
Concrete	3-5%
Bricks	5-10%
Tiles	2-5%

Table 1: Estimating Waste Levels

Subsequently, the following table illustrates how to convert volumes of material to their respective weights. This information is particularly important during material storage and transportation stages.

Materials
Timber = 0.5 tonnes per m^3
Concrete = 2.4 tonnes per m^3
Bricks = 1.5 tonnes per m^3
Tiles = 0.75 tonnes per m^3
Steel = 2.4 tonnes per m^3

Table 2: Converting Volume into Weight

WASTE TYPES AND HANDLING

Waste volumes produced by excavation, demolition and construction stages shall be estimated by the contractor at the construction certificate stage. Where possible, materials shall be reused or recycled, with disposal being the last resort. The destination of all recycled and disposed material shall be announced upon the selecting the waste collectors and recyclers.

NOTE: The arrangements for all reused, recycled and disposed waste shall be tracked and recorded providing an auditable database, with all receipts to be held on-site.

Refer to Appendix A for the Waste Management Contacts for waste contractor details.

Demolition Phase

Materials on Site	**Waste Estimate** Volume (m^3), Area (m^2) or Weight (T)	**On-Site Reuse** Specify how materials will be reused or recycled on-site	**Off-Site Recycling** Specify the contractors and recycling outlet	**Off-Site Disposal** Accordance with DECCW
Excavation Material	TBA			
Green Waste	TBA			
Bricks	TBA			
Ceramic Tiles	TBA			
Concrete	TBA			
Plasterboard	TBA			
Timber	TBA			
Metals	TBA			
Other Waste	TBA			
Asbestos	TBA			
Hazardous	TBA			

Table 3: Demolition Waste Types and Handling

The Demolition reuse/recycling/disposal information will be advised at CC Stage.

Materials on Site	Waste Estimate Volume (m^3), Area (m^2) or Weight (T)	On-Site Reuse Specify how materials will be reused or recycled on-site	Off-Site Recycling Specify the contractors and recycling outlet	Off-Site Disposal Accordance with DECCW
Soil, Sand & Rubble	TBA			
Bricks	TBA			
Ceramic Tiles	TBA			
Concrete	TBA			
Plasterboard	TBA			
Timber	TBA			
Metal (Ferrous, Iron, Steel and Black Iron)	TBA			
Metal (Non-Ferrous, Aluminium, Copper, stainless Steel and Wire)	TBA			
Cardboard & Paper	TBA			
Plastic	TBA			
Other Waste	TBA			
General Waste (Landfill)	TBA			

Table 4: Construction Waste Types and Handling

The Construction reuse/recycling/disposal information will be advised at CC Stage.

WASTE COLLECTION (DEMOLITION & CONSTRUCTION STAGES)

The waste collection service for the proposed demolition and construction stage of the development will be provided by a private waste contractor.

NOTE: All vehicle movements and strategic placement of the bins on site, ensuring the bins are relocated when needed during the works to maintain safe access and use at all times, will be provided by the site manager. Supporting documentation/receipts to be retained in order to verify the disposal of materials in accordance with the approved plan.

Demolition & Construction Waste Security/Communication Strategy

All demolition and construction bins will be secured on site with all site workers receiving documentation detailing all necessary requirements for safe waste management and handling whilst attending the site health and safety induction course.

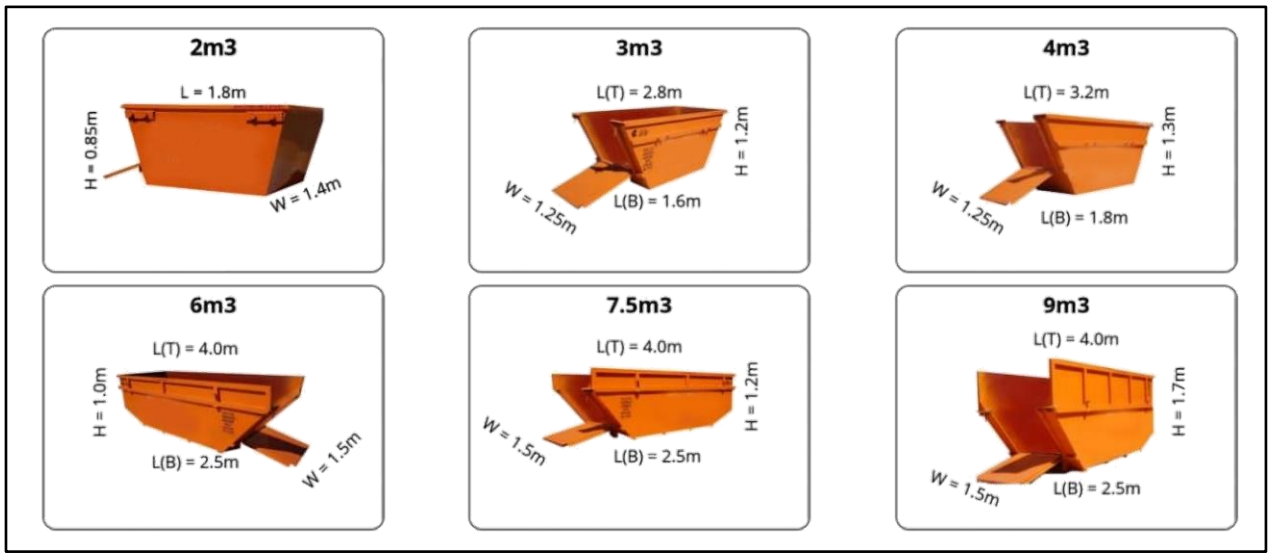


Figure 3: Typical Waste Skips for Demolition & Construction Site Waste Management

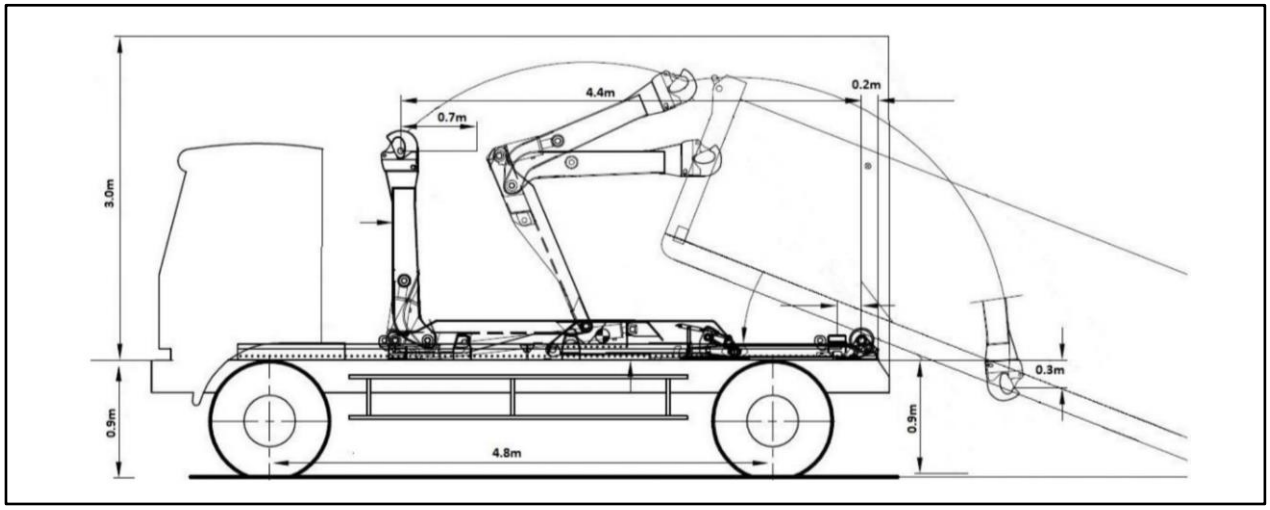


Figure 4: Typical Hook Lift Waste Collection Vehicle Configuration

OPERATIONAL WASTE MANAGEMENT, STORAGE AND COLLECTION

The proposed development consists of a meditation centre and 2 bedroom unit development. Access to the front entrance of the meditation centre will be via a driveway and footpath off Pringle Avenue. The Mobile Garbage bins (MGB's) will be stored at the rear of the centre. **(Refer Appendix B).**

ANTICIPATED WASTE GENERATION, STORAGE & COLLECTION

Waste collection will be provided by a private contractor for the mediation centre and by Canterbury Bankstown City Council for the 2 bedroom unit.

Waste Generation

As per table F3 of the NSW (EPA) Better Practice Guide for Resource Recovery in Residential Developments (2019), a meditation centre would be classed as 'offices' for the purpose of calculating the waste generated.

The following table illustrates the typical garbage and recycling generation rates.

Type of Premises	General Land Waste	Commingled Recycling Waste
Offices	10L/100m^2 floor area/day	15L/100m^2 floor area/day

Table 5: Typical General and Recycling Waste Generation Rates for Commercial Developments

NOTE: Actual usage can vary and may be generated at a reduced rate. Management will monitor all waste requirements and handling. Accessing any needs for waste management plan revisions.

As per table F2 of the NSW (EPA) Better Practice Guide for Resource Recovery in Residential Developments (2019), the unit would be classed as a '2 bedroom apartment' for the purpose of calculating the waste generated.

The following table illustrates the typical garbage and recycling generation rates.

Type of Premises	General Land Waste	Recycling Waste
2 bedroom apartment	100L/week	100L/week

Table 6: Typical General and Recycling Waste Generation Rates for Residential Developments

Waste within Overall Development

Using the garbage and recycling generation rates above, the following can be calculated;

Meditation Centre: (224.3m^2) (7 Day Week)

- 10L/100m^2 of floor area per day general waste = 157.01L per week (uncompacted)
- 15L/100m^2 of floor area per day recycling waste = 235.52L per week (uncompacted)

2 Bedroom Unit:

- 100L per week of general waste
- 100L per week of recycling waste

Waste Storage and Handling of Waste Streams

Based on the total waste generated by the development, the following Mobile Garbage Bins (MGBs) should be provided:

Meditation Centre:

- 1 x 240L General Waste MGB's – collected and emptied once a week.
- 1 x 240L Recycling Waste MGB's – collected and emptied once a week.

2 Bedroom Unit:

- 1 x 120L General Waste MGB's – collected and emptied once a week.
- 1 x 240L Recycling Waste MGB's – collected and emptied once a fortnight.

The following table illustrates the typical dimensions of the MGB's mentioned above.

Size (L)	Height (mm)	Width (mm)	Depth (mm)	Approx. Footprint (m^2)
120L	930	480	550	0.26
240L	1,080	580	735	0.43

Table 7: Typical Measurements for the (Mobile Garbage Bins) MGB's

Garden	Recycling	Garbage
✓ Tea bags, coffee grounds. ✓ Fruit, vegetable peels and scraps. ✓ Garden waste: lawn clippings, leaves, prunings, small sticks, flowers. ✓ Weeds (except Tropical Soda Apple). ✓ Small non-treated timber offcuts. ✓ Shredded paper, paper towel, serviettes. ✓ Council provided compostable caddy liner.	✓ All recycling. ✓ Steel, tin, aluminium cans, empty aerosols. ✓ Clear, brown, green glass bottles / jars (rinsed, no lids). ✓ Plastic bottles, soft drink bottles, containers (rinsed, no lids). ✓ Carboard boxes, milk, juice cartons. ✓ Newspapers, magazines, office paper, junk mail, window envelopes. ✓ Council provided compostable caddy liner.	✓ General waste. ✓ Plastic bags. ✓ Packets, wrappers, cling wrap, bubble wrap. ✓ Nappies, sanitary waste, (wrapped tightly, stored in a well-sealed bag). ✓ Animal faeces, bedding, and kitty litter. ✓ Foam, polythene, and polystyrene. ✓ Light bulbs, mirrors, ceramics, cookware, drinking glasses. ✓ Contents of your vacuum cleaner, cotton wool, buds and cigarette ends.
✘ Plastic bags, food packaging, cling wrap, cigarette butts, nappies or wipes, kitty litter, glass, metal, hair, dog-cat droppings, dish clothes, or recyclables.	✘ Plastic bags, light bulbs, mirrors, drinking glasses, general and food waste, ceramics, crockery, foam, ovenware, polystyrene, waxed cardboard boxes.	✘ Building materials, syringes, oil or paint, gas bottles, hazardous or chemical waste. ✘ Medical waste: (speak to your doctor / pharmacy).

Figure 5: Guidelines for Waste Placement within the MGB's

The following figure illustrates the scaled diagram of the meditation centre waste storage area.

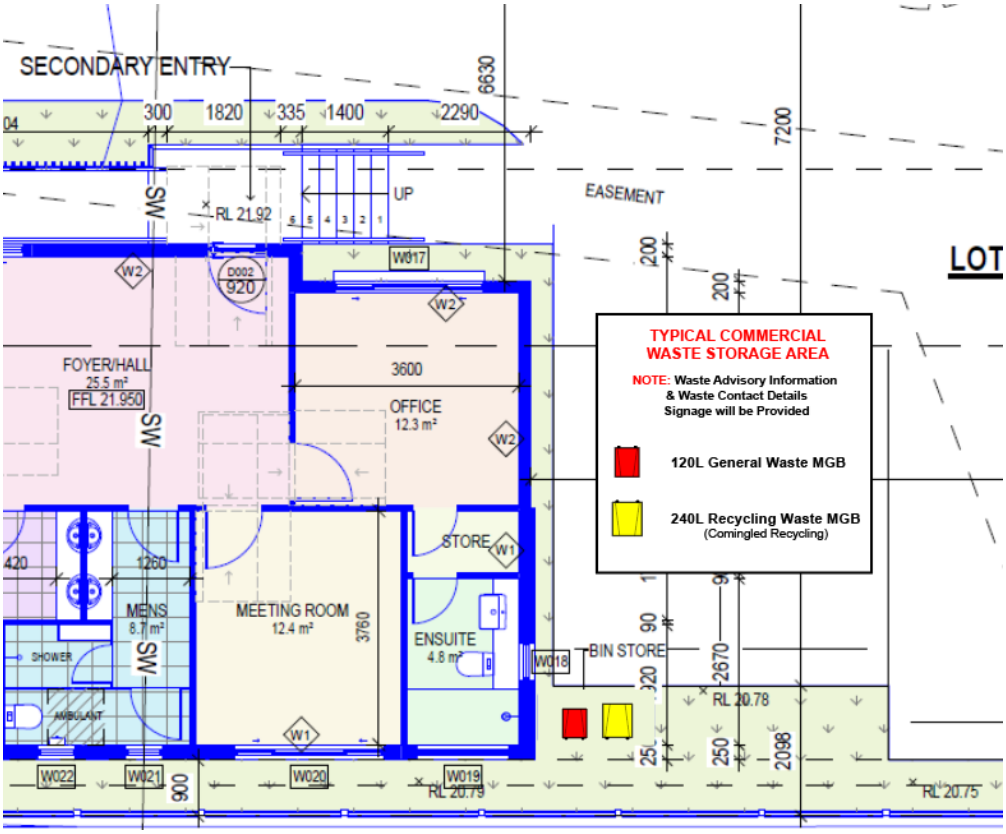


Figure 6: Scaled Diagram of the Meditation Centre Waste Storage Area

The following figure illustrates the scaled diagram of the 2 bedroom unit waste storage area.

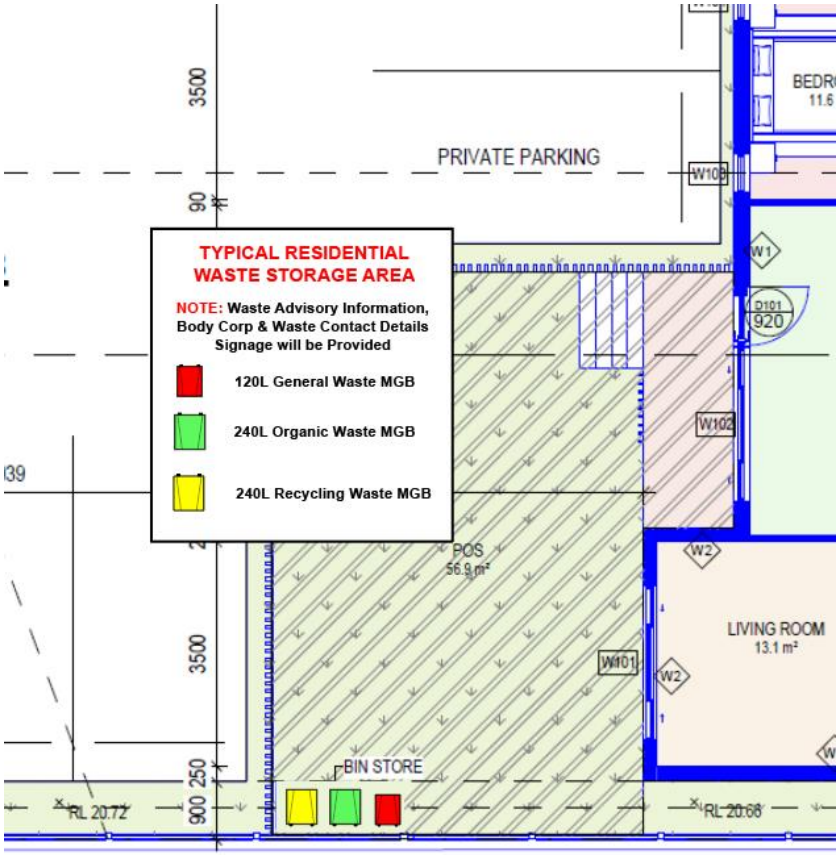


Figure 7: Scaled Diagram of the 2 Bedroom Unit Waste Storage Area

The following figure illustrates the scaled diagram of the waste collection point for the residential waste.

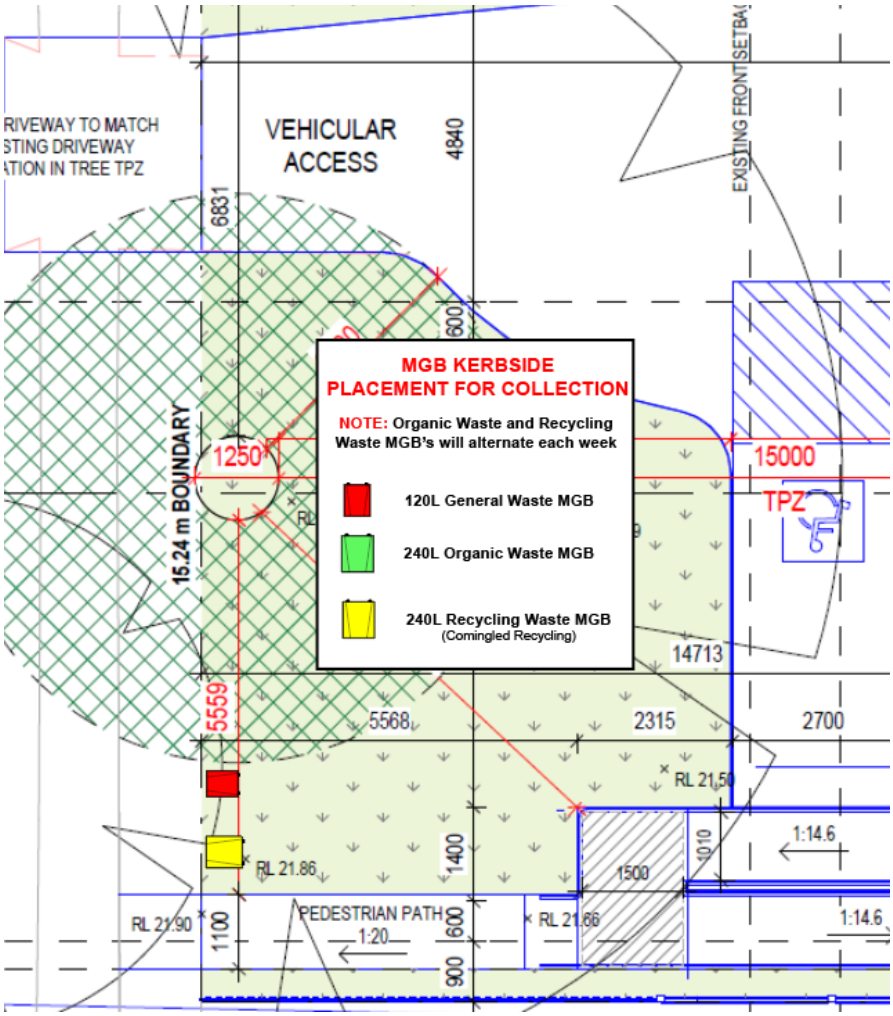


Figure 8: Scaled Diagram of the Residential Waste Collection Point

WASTE COLLECTION (COMMERCIAL WASTE)

Waste collection will be provided by private waste contracted services.

To help ensure bin collection runs smoothly and enables drivers to pick up, empty and replace the bins safely, it's important to:

- Ensure the collection area is unobstructed.
- Ensure the bins are not overfilled with the lids are shut to avoid spills and to protect it from bugs and animals.

The waste collection vehicle will enter the property via the driveway off Pringle Avenue, pull up near the waste storage area and ferry the waste bins to/from the waste storage area and waste vehicle emptying the MGB's. Once all the MGB's have been emptied and returned to the waste storage area, the vehicle will leave in a forward motion.

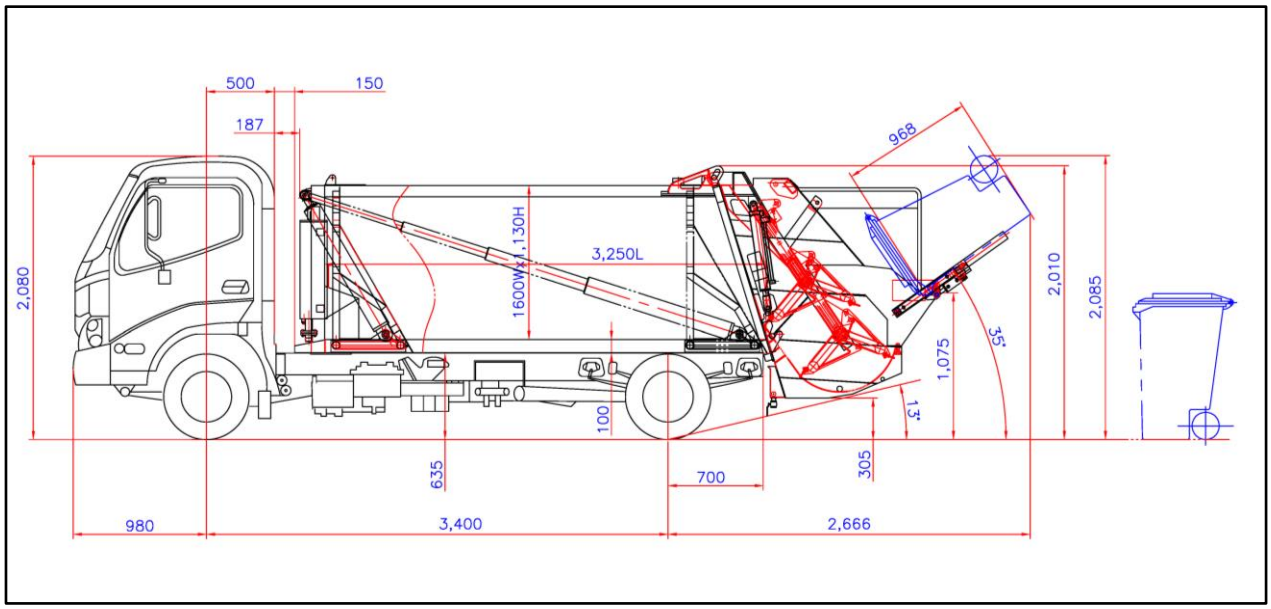


Figure 9: Diagram of a Typical SRV Waste Collection Vehicle

WASTE COLLECTION (RESIDENTIAL WASTE)

Waste collection will be provided by THE City of Canterbury Bankstown Council.

To help ensure bin collection runs smoothly and enables drivers to pick up, empty and replace the bins safely, it's important to:

- Residents will ferry their bins on the night before or the day of collection before 6am and place their waste bins on the street kerbside 500mm apart for collection.
- Leave the bins at least one metre between and any obstructions (such as trees, cars or poles).
- Ensure the bin are not overfilled with the lids shut to avoid spills and to protect it from bugs and animals.
- The cardboard/paper recycling bin will be ferried out for collection on alternating weeks to that of the mixed recycling waste bins.

The waste collection vehicle will pull up on Pringle Avenue and collect and empty the MGB's. Once all the MGB's have been emptied and returned to the street kerbside, the waste vehicle will leave in a forward motion.

The bins will be promptly returned to the waste storage area by residents at their earliest convenience and not left on the kerbside or on the road after collection. Bins that are placed on the road pose a risk for drivers and pedestrians and disrupt traffic.

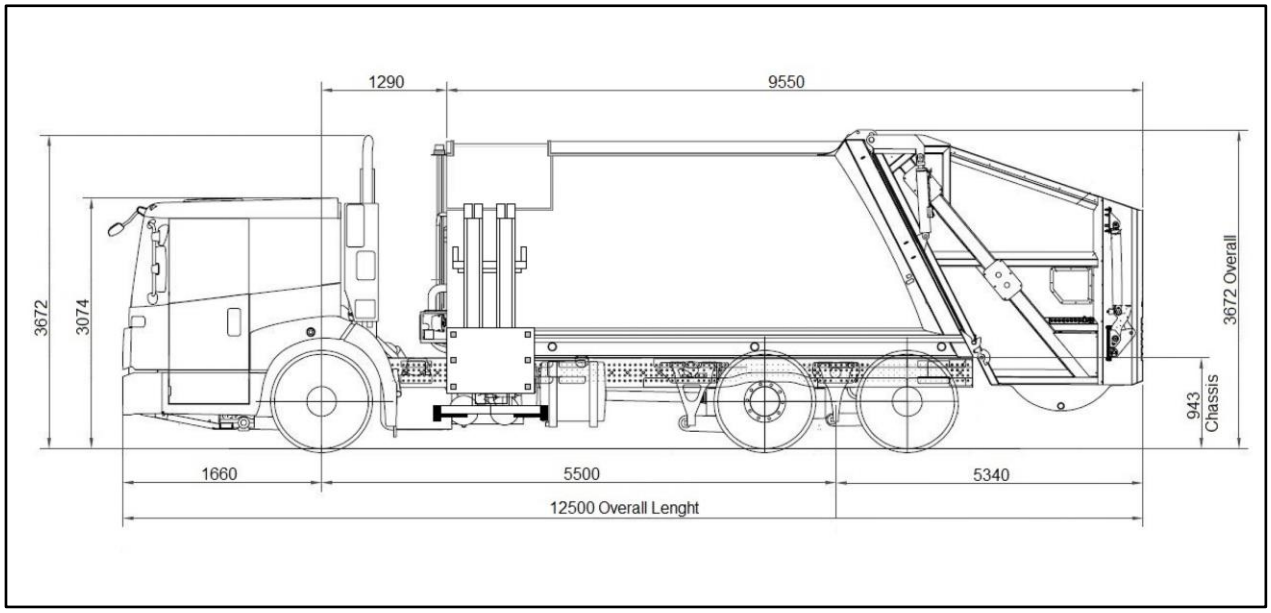


Figure 10: Diagram of a Typical Sidearm Waste Collection Vehicle

AMENITY

Noise

The only noise generated from the waste management at the property will be that of the MGB's being collected and emptied. Any other noise related to the waste management will be kept to a minimum.

Ventilation

The waste storage areas are ventilated.

Security & Communication Strategy

All MGB's will be secured within the waste storage areas.

Management and staff will receive detailed documentation detailing all necessary requirements for safe waste management and handling including all relevant contact information. NOTE: It is recommended that the commercial bin area should have appropriate signage showing acceptable and non-acceptable items for each bin.

Waste Storage Enclosures & Cleaning Facilities

Building management will be responsible for keeping the MGB's clean.

Prevention of Vermin

The occupants will be advised to not overfill the bins so that the lids are closed at all times. It is suggested to place rat traps in the corners of the waste storage areas.

MISCELLANEOUS

Composting Facilities

Organic waste is a problem in landfill as it produces methane, a harmful greenhouse gas that is 25 times more potent than carbon dioxide. Turning it into compost reduces the impact on the environment and allows waste to become a usable product. Existing landfill sites are also nearing capacity, and the creation of new sites can cause significant detrimental effects through land clearing, loss of habitat for local wildlife, and potential groundwater and soil contamination from the leaching of heavy metals and chemicals.

Management can decide to commit to improving waste management methods by composting in support of social and environmental commitments at the local level by using **Bokashi Anaerobic Composting** bins that can be stored indoors or outdoors. It's a great way to turn your kitchen scraps into rich liquid and semi-solid fertiliser.

Organic (Food/Green) Waste

Food waste will be placed in the general waste MGB's. ~~Gardening waste will be handled by the private gardening contractor.~~

Bulky Waste Storage

The owners will handle and dispose of their bulky waste personally.

E-Waste

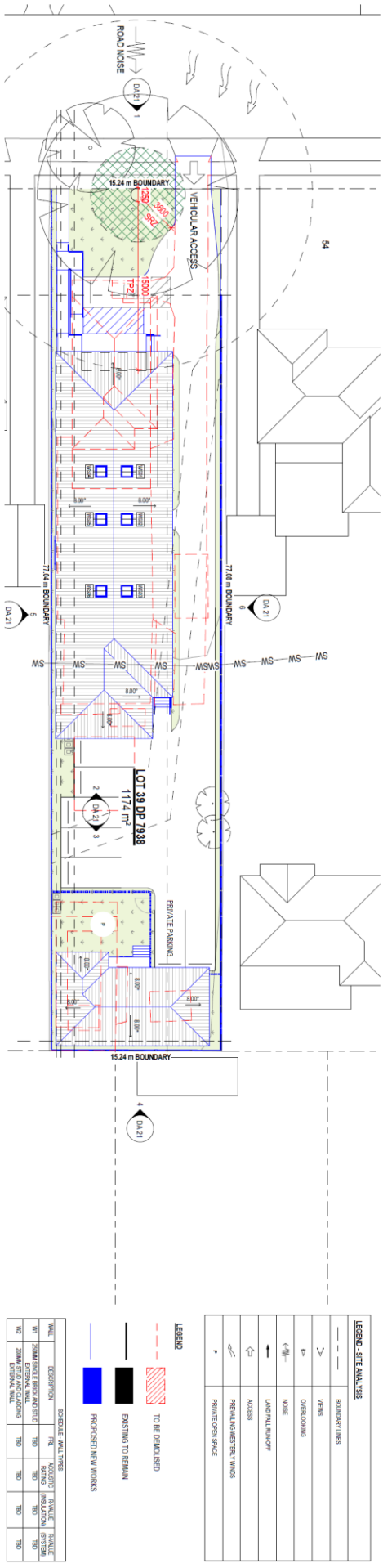
Recyclable electronic goods include batteries, equipment containing printed circuit boards, computers, televisions, fluorescent tubes and smoke detectors. E-Waste will be placed in impermeable surface containers and collected by a registered E-Waste Re-Processor as required.

APPENDIX A – WASTE MANAGEMENT CONTACTS

Materials	Company Name	Company Address	Contact Details
Evacuation Material/Soil Waste	Enviroguard	Cnr Mamre & Erskine Parks Roads, Erskine Park	9834 3411
Green Waste	Ecocycle	155 Newton Road, Wetherill Park	9757 2999
Bricks	Brandown	Lot 9 Elizabeth Drive, Kemps Creek	9826 1256
Concrete	Brandown	Lot 9 Elizabeth Drive, Kemps Creek	9826 1256
Timber	Artistic Popular Furniture	10 Raglan Road, Auburn	9644 3054
Metals	Parramatta Scrap Metal	12 North Roack Road, Nth Parramatta	9630 2974
Roof Tiles	Obsolete Tiles	3 South Street, Rydalmere	9684 6333
Door Fittings	Recycling Works	45 Parramatta Road, Annandale	9517 2711
Plastics	Cromford	120-122 Ballandella Road, Pendle Hill	9631 6644
Plasterboard	Ecocycle	155 Newton Road, Wetherill Park	9757 2999
Fibro Containing Asbestos	Enviroguard	Cnr Mamre & Erskine Parks Roads, Erskine Park	9834 3411

NOTE: Disposal of hazardous chemicals is regulated and must be tracked (Certified Trackable Waste Transporter) under the chain of custody and chain of responsibilities, philosophies with the site manager ultimately responsible for logistics and all waste generated on site.

APPENDIX B – PROPOSED DEMOLITION PLAN



APPENDIX C – PROPOSED FLOOR PLAN