

Archer Consultants Pty Ltd

PH: 02 7227 9360

ABN: 79 661 164 683

67-75 Lawford Street, Greenacre NSW 2190

COMBINED DEMOLITION/CONSTRUCTION & OPERATIONAL WASTE MANAGEMENT PLAN

Proposed Commercial Development

Storage Units

Client - Allamcorp Pty Ltd

Revision - 1A

Prepared for - City of Canterbury Bankstown - December 2024

CONTENTS

INTRODUCTION	4
BACKGROUND & EXISTING CONDITIONS	5
WASTE MANAGEMENT PRINCIPLES	6
HANDLING	6
STOCKPILING	6
DEMOLITION & CONSTRUCTION STAGE	7
DEMOLITION WORKS	7
CONSTRUCTION WORKS.....	7
ESTIMATING WASTE QUANTITIES	8
WASTAGE TYPES AND HANDLING	9
DEMOLITION PHASE	9
CONSTRUCTION PHASE	10
WASTE COLLECTION (DEMOLITION & CONSTRUCTION STAGE)	11
DEMOLITION & CONSTRUCTION WASTE SECURITY/COMMUNICATION STRATEGY	11
OPERATIONAL WASTE MANAGEMENT, STORAGE AND COLLECTION	12
ANTICIPATED WASTE GENERATION, STORAGE & COLLECTION	13
WASTE GENERATION	13
WASTE WITHIN OVERALL DEVELOPMENT	13
WASTE STORAGE AND HANDLING OF WASTE STREAMS	14
WASTE COLLECTION (OPERATIONAL WASTE).....	20
AMENITY	21
NOISE	21
VENTILATION	21
SECURITY & COMMUNICATION STRATEGY	21
WASTE STORAGE ENCLOSURES & CLEANING FACILITIES	21
PREVENTION OF VERMIN	21
MISCELLANEOUS.....	22
COMPOSTING FACILITIES.....	22
ORGANIC (FOOD/GREEN) WASTE	22
BULKY WASTE STORAGE.....	22
E-WASTE	22
APPENDIX A – WASTE MANAGEMENT CONTACTS	23
APPENDIX B – DEMOLITION & SITE PLANS	24

FIGURES

FIGURE 1: SUBJECT SITE LOCATION SOURCE: GOOGLE MAPS5

FIGURE 2: SUBJECT SITE AERIAL VIEW SOURCE: GOOGLE MAPS.....5

FIGURE 3: TYPICAL WASTE SKIPS FOR DEMOLITION & CONSTRUCTION SITE WASTE MANAGEMENT11

FIGURE 4: TYPICAL HOOK LIFT WASTE COLLECTION VEHICLE CONFIGURATION.....11

FIGURE 5: GUIDELINES FOR WASTE PLACEMENT WITHIN THE MGB’S15

FIGURE 6: SCALED DIAGRAM OF THE BASEMENT LEVEL WASTE STORAGE ROOM.....16

FIGURE 7: SCALED DIAGRAM OF THE GROUND LEVEL WASTE STORAGE COLLECTION ROOM17

FIGURE 8: SCALED DIAGRAM OF LEVEL 1 WASTE STORAGE ROOM.....18

FIGURE 9: SCALED DIAGRAM OF LEVEL 2 WASTE STORAGE ROOM.....19

TABLES

TABLE 1: ESTIMATING WASTE LEVELS8

TABLE 2: CONVERTING VOLUME INTO WEIGHT8

TABLES 3: WASTE TYPES AND HANDLING9

TABLE 4: TYPICAL GENERAL AND RECYCLING WASTE GENERATION RATES FOR COMMERCIAL DEVELOPMENTS.....13

TABLE 5: TYPICAL MEASUREMENTS FOR THE (MOBILE GARBAGE BINS) MGB’S.....14

INTRODUCTION

Archer Consultants Pty Ltd was engaged by Allamcorp Pty Ltd to prepare a Waste Management Plan (WMP) for approval of a proposed storage unit development at 67-75 Lawford Street, Greenacre NSW 2190.

The proposed development consists of;

DEVELOPMENT DETAILS
Basement Level: Storage Units (409.71m ²)
Ground Level: Storage Units (496.92m ²)
Level 1: Storage Units (592.67m ²)
Level 2: Storage Units (592.67m ²)
Total: (2051.97m ²)

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 Crawford Architects Pty Ltd.
- Cumberland's Canterbury Bankstown Waste Management Guide for New Developments.

BACKGROUND & EXISTING CONDITIONS

The subject site is located at 67-75 Lawford Street, Greenacre NSW, on the south side of Lawford Street, and the nearby land uses are mostly commercial residential properties with residential properties to the northeast.

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.

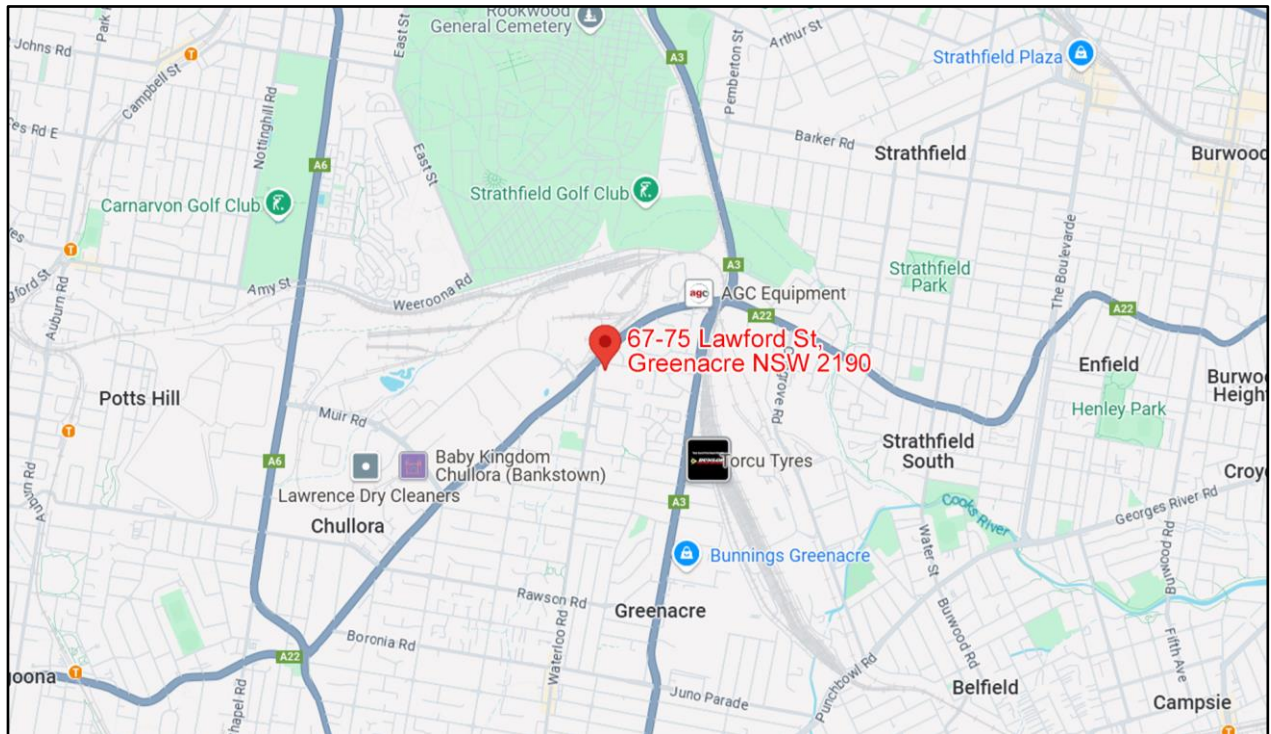


Figure 1: Subject Site Location

Source: Google Maps

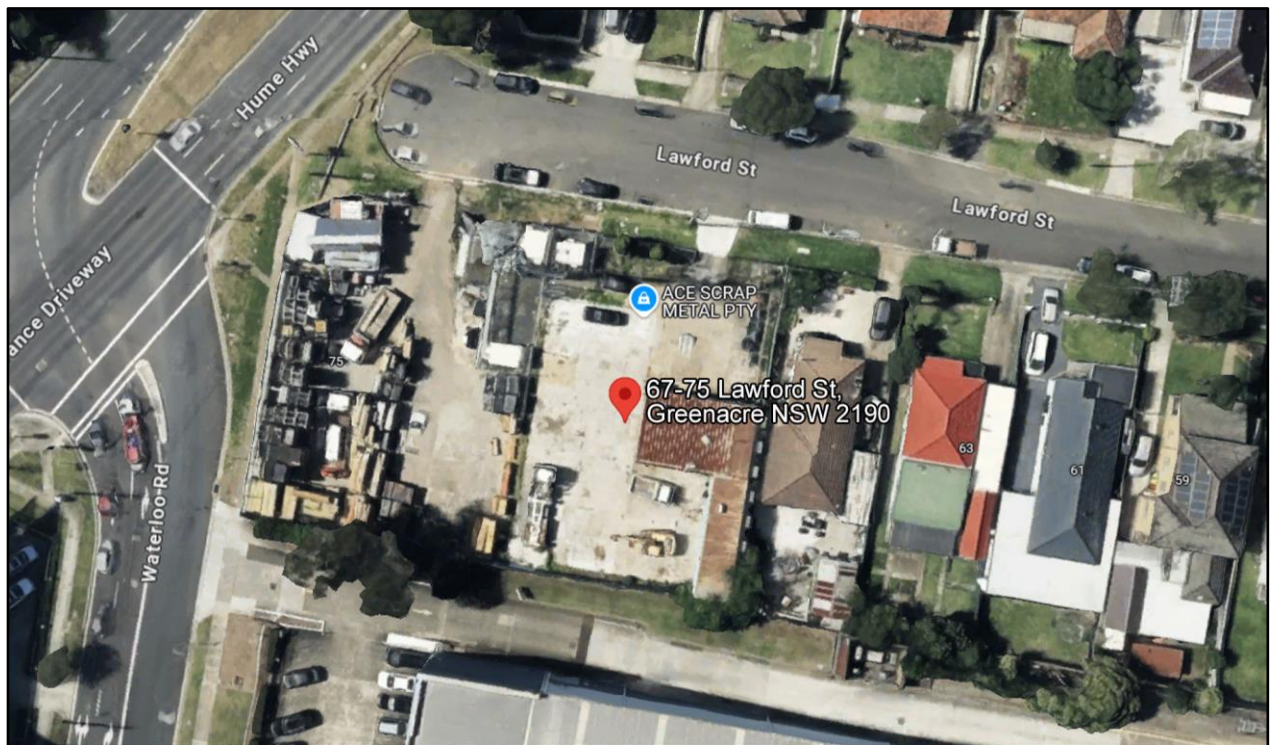


Figure 2: Subject Site Aerial View

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 from 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 construction of a storage unit development.

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

WASTAGE 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 – Waste Management Contacts for waste contractor details.

Tables 3: Waste Types and Handling

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			

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

Construction 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
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			

WASTE COLLECTION (DEMOLITION & CONSTRUCTION STAGE)

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.

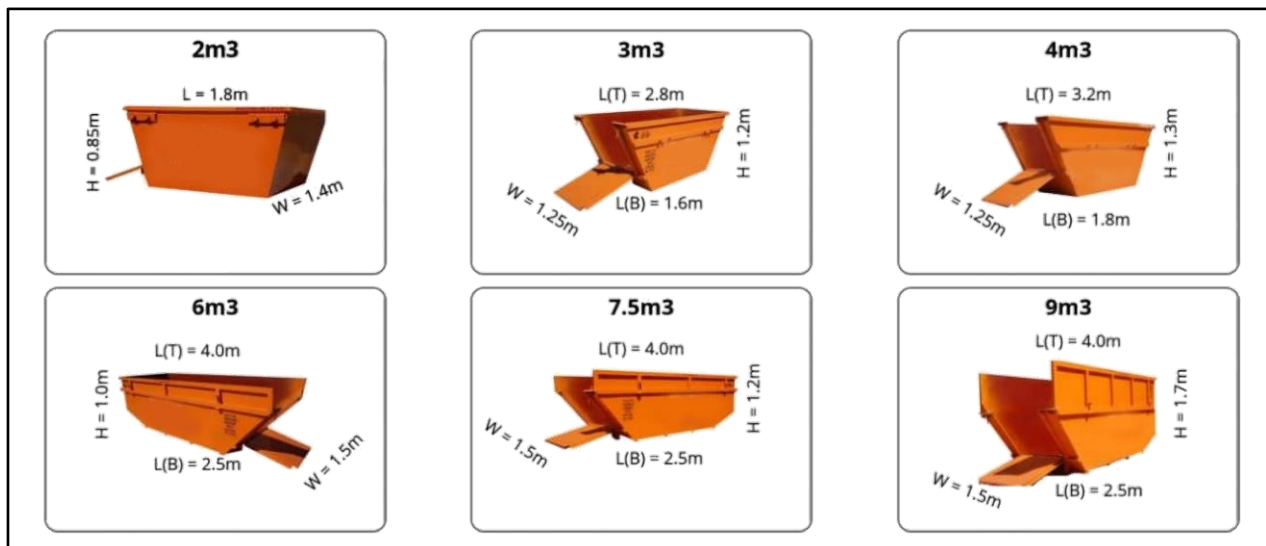


Figure 3: Typical Waste Skips for Demolition & Construction Site Waste Management

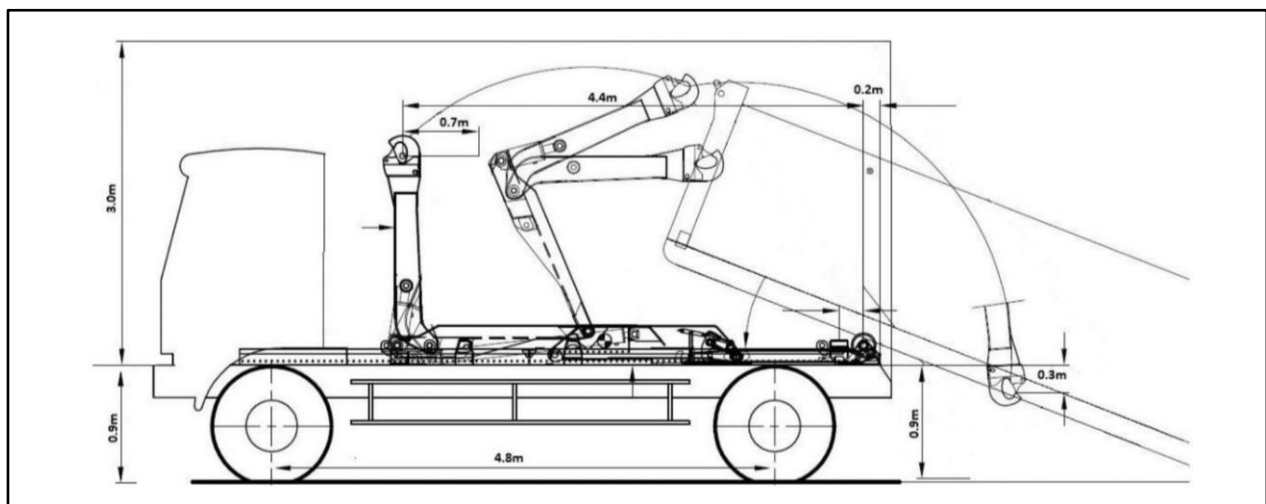


Figure 4: Typical Hook Lift Waste Collection Vehicle Configuration

OPERATIONAL WASTE MANAGEMENT, STORAGE AND COLLECTION

The proposed development consists of a storage unit development. Access to the proposed front entrance of the development will be provided via a paved walkway and driveway off Lawford Street. The Mobile Garbage bins (MGB's) will be stored in the ground level waste storage collection room. **(Refer Appendix B).**

ANTICIPATED WASTE GENERATION, STORAGE & COLLECTION

Waste collection will be provided by Cumberland City Council commercial garbage services.

Waste Generation

As per Cumberland's Canterbury Bankstown Waste Management Guide for New Developments.

The waste entitlement for the development consists of: Offices is 10L/100m² of floor area per day general waste and, 15L/100m² of floor area per day recycling waste (Inclusive of paper & cardboard waste). **NOTE:** Office rates are used for storage units.

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 4: Typical General and Recycling Waste Generation Rates for Commercial Developments

NOTE: Generation rates based on weekly rates within the Cumberland's Canterbury Bankstown Waste Management Guide for New Developments. 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.

Waste within Overall Development

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

Basement Level Storage Units: (409.71m²) (7 Day Week)

- 10L/100m² of floor area per day general waste = 286.79L per week (uncompacted)
- 15L/100m² of floor area per day recycling waste = 430.19L per week (uncompacted)

Ground Level Storage Units: (496.92m²) (7 Day Week)

- 10L/100m² of floor area per day general waste = 347.84L per week (uncompacted)
- 15L/100m² of floor area per day recycling waste = 521.76L per week (uncompacted)

Level 1 Storage Units: (592.67m²) (7 Day Week)

- 10L/100m² of floor area per day general waste = 414.86L per week (uncompacted)
- 15L/100m² of floor area per day recycling waste = 622.30L per week (uncompacted)

Level 2 Storage Units: (592.67m²) (7 Day Week)

- 10L/100m² of floor area per day general waste = 414.86L per week (uncompacted)
- 15L/100m² of floor area per day recycling waste = 622.30L per week (uncompacted)

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:

Commercial Waste Rooms

Basement Level

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

Ground Level (Main Waste Storage Collection Room)

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

NOTE: The spare 240L MGB's will be kept within the ground level waste storage/collection room for the other levels and will be locked to prevent waste being disposed of within the MGB's. The building manager will changeover the spare MGB's with the ground level waste storage/collection room with the interim waste rooms on the basement, level 1 & level 2 floors weekly on the day of collection.

- 6 x 240L General Waste MGB's – spare for changeover with the other levels.
- 8 x 240L Recycling Waste MGB's – spare for changeover with the other levels.

Level 1

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

Level 2

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

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)
240L	1,080	580	735	0.43

Table 5: Typical Measurements for the (Mobile Garbage Bins) MGB's

Recycling

- ✓ 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.

- ✗ Plastic bags, light bulbs, mirrors, drinking glasses, general and food, waste, ceramics, crockery, foam, ovenware, polystyrene, waxed cardboard boxes.

Garbage

- ✓ General waste.
- ✓ Plastic bags.
- ✓ Packets, wrappers, cling wrap, bubble wrap.
- ✓ Nappies, sanitary waste, (wrapped tightly and stored in a well-sealed bag).
- ✓ Animal faeces, bedding, and kitty litter.
- ✓ Foam, polystyrene, and polystyrene.
- ✓ Light bulbs, mirrors, ceramics, cookware, and drinking glasses.
- ✓ Contents of your vacuum cleaner, cotton wool, buds and cigarette ends.

- ✗ 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 MGB's within all the interim waste storage rooms and the ground level storage collection room.

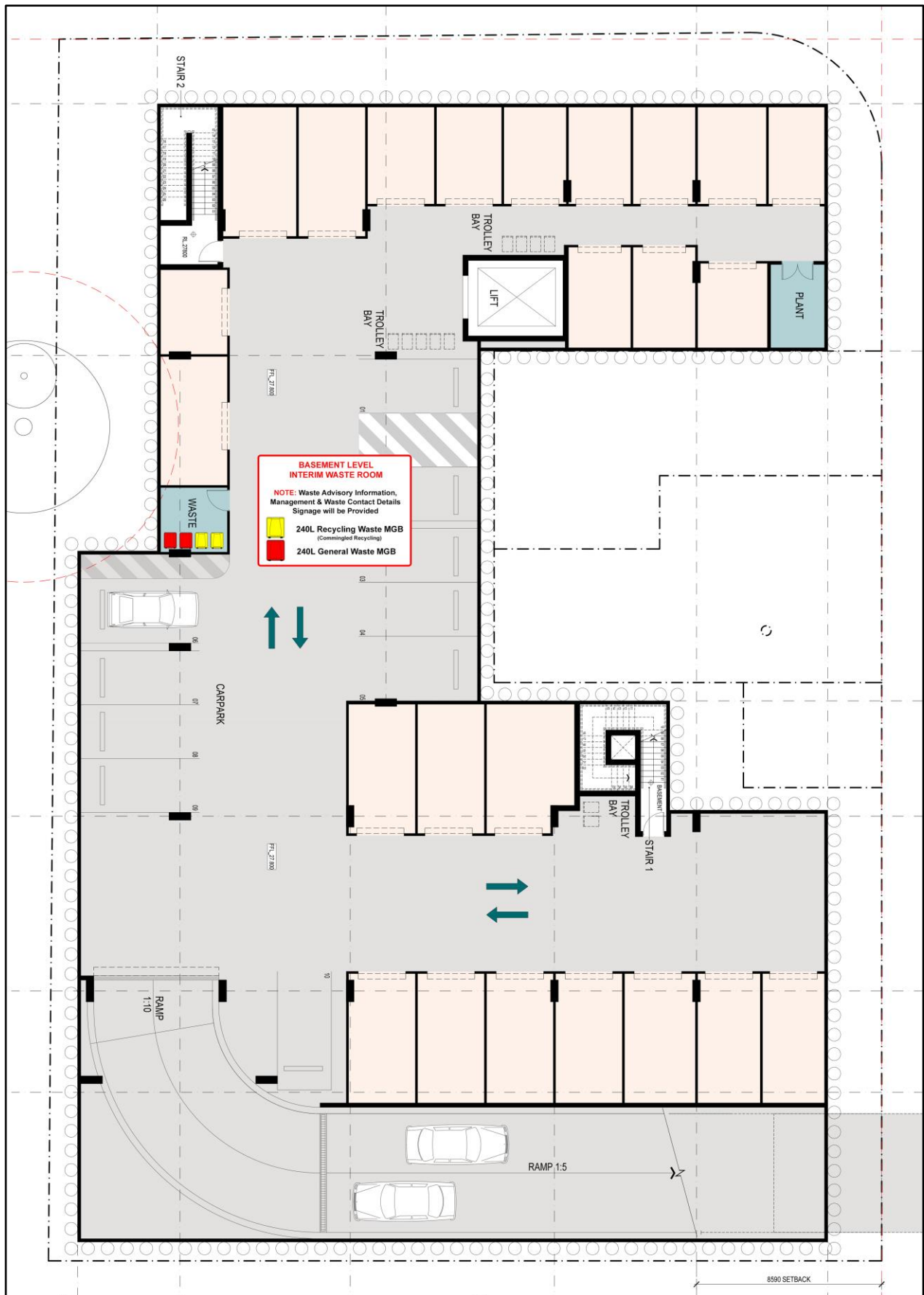


Figure 6: Scaled Diagram of the Basement Level Waste Storage Room

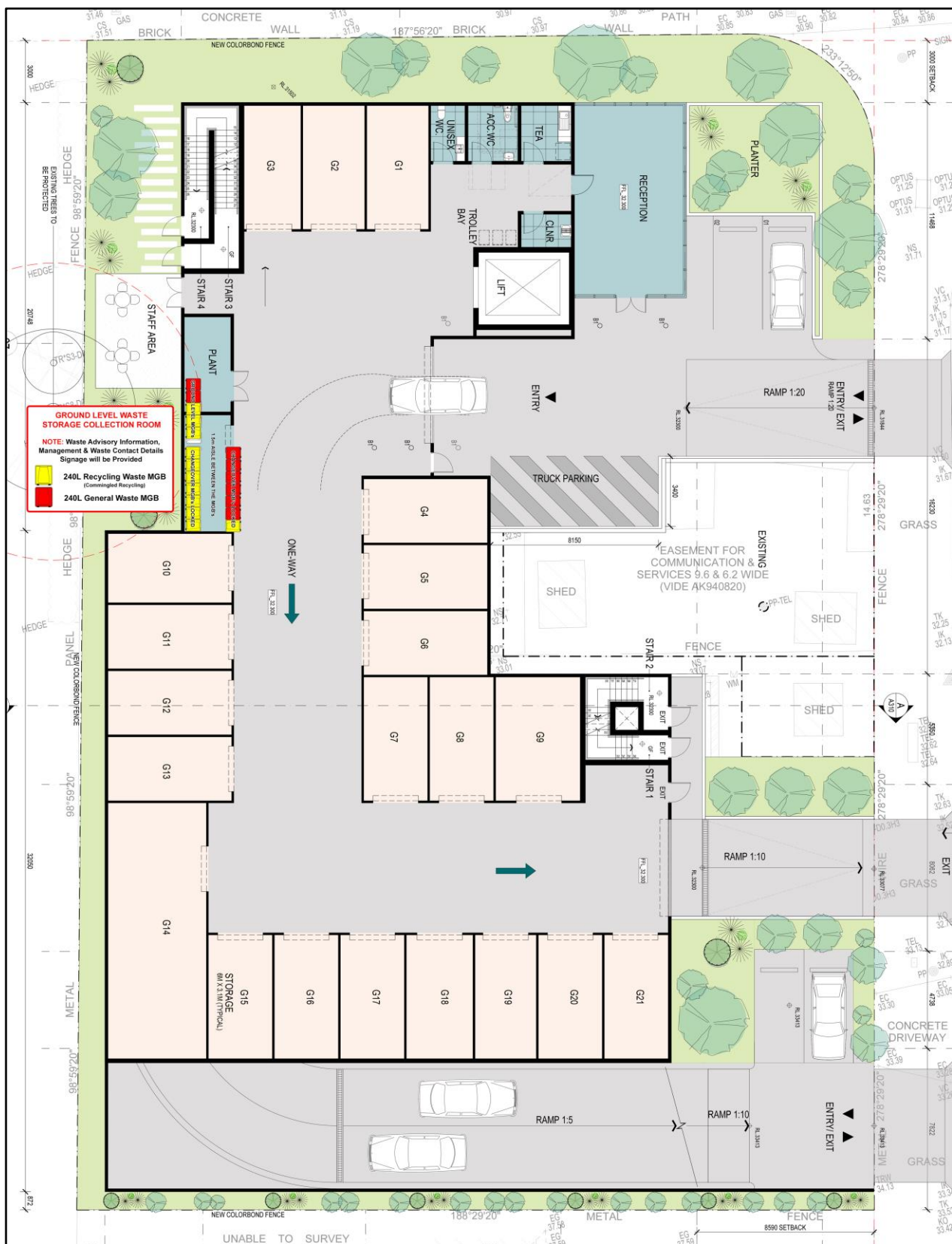




Figure 8: Scaled Diagram of Level 1 Waste Storage Room



Figure 9: Scaled Diagram of Level 2 Waste Storage Room

WASTE COLLECTION (OPERATIONAL WASTE)

Waste collection should 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:

- Using the lift the building manager will changeover the spare MGB's with the ground level waste storage/collection room with the interim waste rooms on the basement, level 1 & level 2 floors weekly on the day of collection.
- Ensure the MGB's 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 Lawford Street, pull up near the ground level waste storage collection room and ferry the waste bins to/from the waste storage collection room and waste vehicle emptying the MGB's. Once all the MGB's have been emptied and returned to the waste storage collection room, the vehicle will leave in a forward motion.

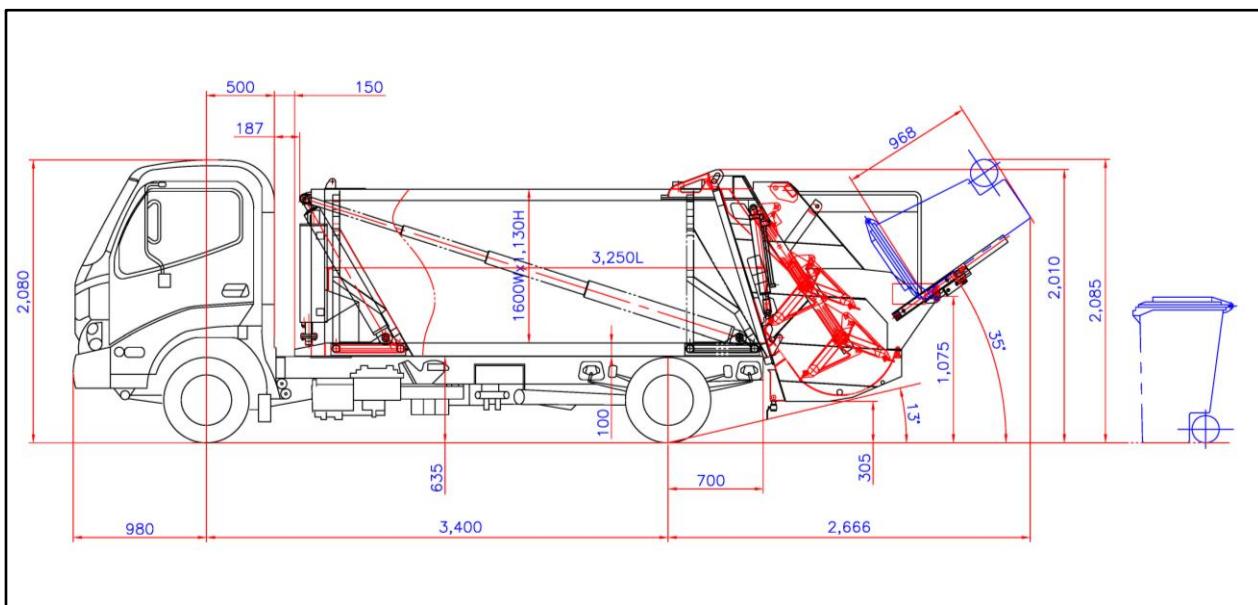


Figure 10: Diagram of a Typical SRV Waste Collection Vehicle

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 rooms should be ventilated.

Security & Communication Strategy

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

Management, Staff and clients will receive detailed documentation detailing all necessary requirements for safe waste management and handling including all relevant contact information.

NOTE: It is recommended that all bins and areas 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.

NOTE: The waste area should be enclosed and consist of; **(1)** Impervious solid impervious material walls and 75mm thick smooth even ground surface, ensuring the ground is graded to a Sydney approved drainage fitting. **(2)** Ceilings must be finished with a smooth faced, non-absorbent material capable of being cleaned. **(3)** Walls, ceilings and floors must be finished in a light colour. **(4)** Hot and cold water tap mixed through a centralised mixing valve with hose cock for use of cleaning the MGB's and waste area. **(5)** Doors must be at least 2m wide and be close fitting and self-closing and able to be opened from within the room. **(6)** Constructed to prevent the entry of vermin and birds with adequate light and ventilation. **(7)** Lighting must be controlled using switches located both inside and outside the room **(8)** Waste educational signage with building management contact details.

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. Please refer to Composting Facilities above.

Bulky Waste Storage

Clients 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 – DEMOLITION & SITE PLANS

