



Waste Management Report

Proposed apartments at 149 Hansworth Street, Mulgrave

Revision A

15/10/2021

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Company Profile – The Urban Leaf Pty Ltd

Mission Statement

We are a team of professionals, dedicated to encouraging sustainable design within the building industry and its related businesses.

We provide clients with reports that comprehensively outline, describe and recommend ecological solutions for different stages of the construction process.

Our team's professional and personal growth is fostered within a positive working environment. Our innovative, original thinking works diligently towards ensuring the social, economic and environmental needs of our community are met and enjoyed by future generations.

Company Philosophy

Our philosophy and motivation is simple. We believe everyone has a responsibility to protect the Earth's eco-systems.

By preserving natural resources, we can guarantee that communities will continue to benefit from an uncompromised quality of life.

In addition, conserving natural resources within our lifetime ensures the legacy we leave for future generations is one that advocates respect for our environment as well as for each other.

Our role in assessing and encouraging sustainable design within the building industry is an important one because it supports ecologically-sound practises.

Our work enables us to promote more efficient use of ecological resources and reduce unnecessary environmental impact.

Services

All of our services are connected to our company's philosophy and contribute to supporting a sustainable environment. We pride ourselves on delivering professional, independent, objective appraisals and reports. Any recommendations we make are underpinned by legislative and regulatory compliance.

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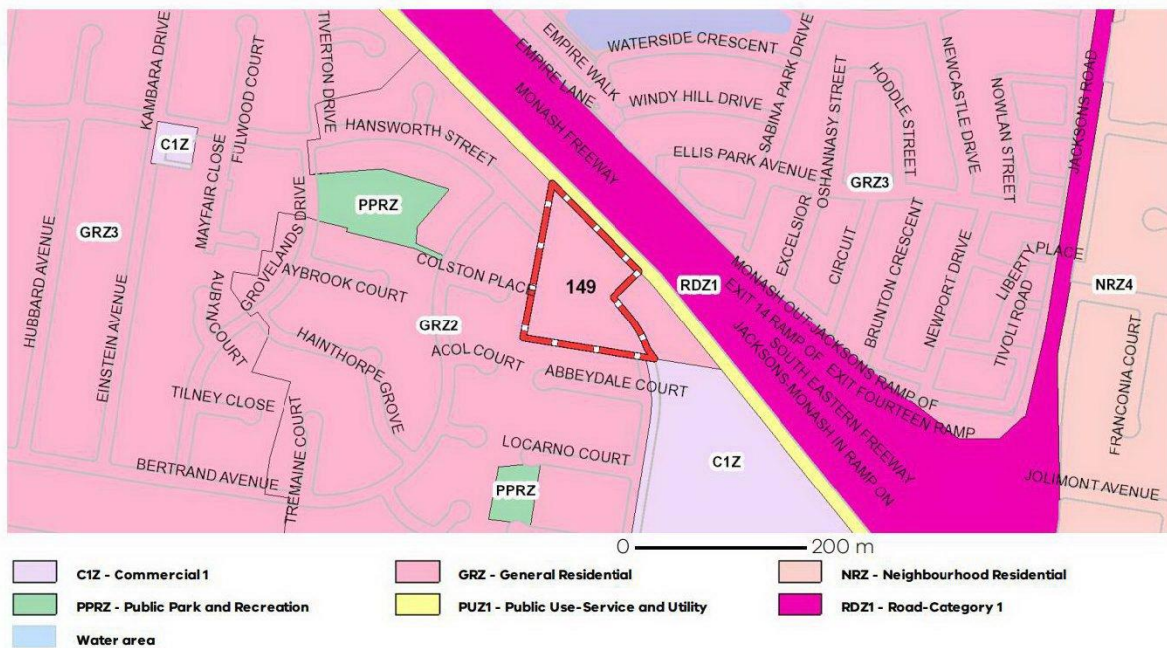
1. Project Information

The Urban Leaf Pty Ltd has been engaged by **Hansworth Development Pty Ltd** to prepare a Waste Management Plan for the proposed multi-unit development.

Site Address: 149 Hansworth Street, Mulgrave
Municipality: City of Monash
Planning Zone: Generation Residential Zone – GRZ2
Total Site Area: 4,475 m²
TUL Reference Number: C67
Assessment Completed by: Febria Margaretha

All results generated by this report are based on:

- Town planning drawings prepared by **Cera Stribley Architecture**, dated **22.09.2021**, and
- Swept path diagrams prepared by **Traffix Group**, dated 13.10.2021.



Note: labels for zones may appear outside the actual zone - please compare the labels with the legend.

Figure 1: Zoning Map (source: planning.vic.gov.au)

2. Description & Use of Proposed Development

The proposed apartments represent **Stage 3** of the multi-unit development at 149 Hansworth Street, Mulgrave. Located within a General Residential Zone (GRZ2) in the City of Monash and approximately 30km south-east of Melbourne CBD, the proposal will consist of the following:

- **4 four-bedroom apartments**
- **6 three-bedroom apartments,**
- **86 two-bedroom apartments** and
- **27 one-bedroom apartments**
- (Total of **123 proposed apartments**)

The development will span over 10 storeys, which include three levels of car parking.

Please note: This Waste Management Report is only applicable to the operational phase of the development. It is not relevant to any demolition or construction works to be undertaken on site.

3. Estimated Garbage & Recycling Generation

Please note:

- *Calculation below has adopted typical waste generation rates from the 'Multi-Unit and Commercial Developments Waste Management Plan Guide for Applicants' (2020) by the City of Monash.*

Tower 1

WASTE SOURCE	NO. of UNITS	WEEKLY TOTAL GARBAGE (litres)	WEEKLY TOTAL RECYCLING (litres)
Apartment (4 bedrooms)	4	120L x 4 = 480L	120L x 4 = 480L
Apartment (3 bedrooms)	5	120L x 5 = 600L	120L x 5 = 600L
Apartments (2 bedrooms)	35	100L x 35 = 3,500L	100L x 35 = 3,500L
Apartments (1 bedroom)	18	60L x 18 = 1,080L	60L x 18 = 1,080L
Total (Weekly)	62	5,660L	5,660L
Total (Half Weekly)	62	2,830L	2,830L

Tower 2

WASTE SOURCE	NO. of UNITS	WEEKLY TOTAL GARBAGE (litres)	WEEKLY TOTAL RECYCLING (litres)
Apartments (3- bedroom)	1	120L x 1 = 120L	120L x 1 = 120L
Apartments (2-bedroom)	51	100L x 51 = 5,100L	100L x 51 = 5,100L
Apartments (1-bedroom)	9	60L x 9 = 540L	60L x 9 = 540L
Total (Weekly)	61	5,760L	5,760L
Total (Half Weekly)	61	2,880L	2,880L

Total

	TOTAL WASTE GENERATED WEEKLY	TOTAL WASTE GENERATED HALF WEEKLY
Garbage	11,420L	5,710L
Recyclable	11,420L	5,710L
Food Waste	2,240L	1,120L

4. System and Size

- The waste management system and facilities are as specified below:
 - Storage space to be allocated inside each apartment for a minimum of two days garbage and recycling.
 - Two bins (minimum 35L) within the kitchen area to store garbage and recycling. Residents are recommended to also have an additional bin to store food waste.
 - Main collection bins kept within the Bin Stores.
 - A Bin Store is located on the Lower Ground Floor Level to serve the lower units. Refer to **Figure 3**.
 - Additionally, three Bin Stores are located on the Upper Ground Floor Level to serve the remainder of the apartments.
 - The Bin Store next to the main Car Park Entry will act as the Main Bin Store while the remaining two smaller bin stores will accommodate the chutes directly serving Tower 1 and Tower 2. Refer to **Figure 4**.
- The various collection waste-streams are summarised below:
 - **Garbage:** Household rubbish and other items that cannot be reused, recycled or composted. For collection purposes, garbage shall be stored within collection bins.

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- **Recycling:** This may include items such as paper, cardboard, cartons, aerosol cans, polyethylene terephthalate (PET), glass, aluminium, steel, and HDPE containers. All recyclables shall be commingled within the respective collection bins.
- **Garden Waste:** Organic waste produced by garden sources. Examples include, grass, leaves, weeds, and tree pruning. Based on minor landscaping, very minimal garden waste generation is anticipated.
- **Voluntary Food Organics:** Any food item that is discarded or lost uneaten, such as fruit and vegetable scraps. Residents are encouraged to reduce their food waste footprint and also to dispose them in a more sustainable manner (avoid the landfill).
 - o **Compost:** At this development, there would be minimal onsite demand for compost. However, if residents choose to install such system in the future, the appropriate space must be located with consideration of potential odour generation, connection of any run-off to drainage system, positioning of dwellings, caretaker necessity and increasing awareness through visibility and accessibility.
- **Hard Waste:** Bulky household item that would not be collected in typical waste collection service, such as furniture and whitegoods.
- **E-waste:** This may include discarded electrical or electronic equipment with a power cord or battery and its corresponding parts. Examples include computers, mobile phones, kitchen appliances and white goods. The Victorian Government has banned e-waste from Victoria's landfill. The disposal of items classified under this category shall be organised with the assistance of the Owners Corporation and an approved e-waste service provider.
 - o Alternatively, e-waste can be directly dropped at the **Monash Waste Transfer Station**, located on 380 Ferntree Gully Road, Notting Hill, or any other approved stations.
 - o No electronic waste is to be stored in the general waste bins.
- **Other Waste Streams:** This may include hard, liquid wastes and home detox (paint/chemicals). If required, the disposal of items classified under this category shall be organised with the assistance of the Owners Corporation and the chosen contractor. Alternatively, such items can also be dropped off at specific collection and recovery points around the municipality. Refer to the City of Monash's website for further details.

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LOCATION	WASTE STREAMS	BIN SIZE (litres)	BIN AREA (m ²)	QUANTITY	TOTAL AREA for specific bin type (m ²)
Lower Ground Bin Store	Garbage	360L	0.53 m ²	1	0.53 m ²
	Recycling	360L	0.53 m ²	1	0.53 m ²
	Voluntary Food Organics	240L	0.43 m ²	1	0.43 m ²
Upper Ground Bin Store (Main)	Garbage	660L	1 m ²	2	2 m ²
	Recycling	660L	1 m ²	2	2 m ²
	Voluntary Food Organics	660L	1 m ²	2	2 m ²
	Hard Waste	-	3 m ²	1	3 m ²
	Charity	-	1 m ²	1	1 m ²
Upper Ground Bin Store Tower 1	Garbage	660L	1 m ²	3	3 m ²
	Recycling	660L	1 m ²	3	3 m ²
Upper Ground Bin Store Tower 2	Garbage	660L	1 m ²	4	4 m ²
	Recycling	660L	1 m ²	4	4 m ²

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RESOURCE TYPE	LID COLOUR	BODY COLOUR	EXAMPLE
WASTE TO LANDFILL	Red	Dark Green or Black	
DRY COMMINGLED RECYCLABLES	Yellow	Dark Green or Black	
GREEN ORGANICS FOR COMPOSTING	Lime Green	Dark Green or Black	
PAPER/CARDBOARD	Blue	Dark Green or Black	

Figure 2: Bin colour to be consistent with AS 4123.7-2008
 (source: Better Practice Guide for Waste Management and Recycling in MUDs)

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Figure 3: Locations of the Lower Ground Floor Bin Store (source: Cera Stribley)

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Figure 4: The Upper Ground Floor contains three Bin Stores. (1) Main Bin Store (2) Tower 2 Bin Store (3) Tower 1 Bin Store. Vehicular access into the area is on the south-eastern portion of the development. (source: Cera Stribley)

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5. Recommended Collection Service

Garbage and Recycling

- Municipal kerbside bins would affect the streetscape and require a substantial onsite storage facility.
- **Therefore, it is recommended that a private contractor is engaged to collect garbage and recycling waste. This must be organised by the Owners Corporation.**

Please note: Every rateable tenement is liable to pay for municipal charges regardless of the level of collection services provided by council.

Hard Waste

- The Owners Corporation shall organise collection and appoint a private contractor to collect hard waste as required.
- Alternatively, items classified under this category can also be directly taken by residents to the **Monash Waste Transfer and Recycling Station**, located on 380 Ferntree Gully Road, Notting Hill.

Green Waste

- The Owners Corporation shall appoint a private maintenance contractor to remove green waste from all common areas and possibly private spaces.

Voluntary Food Organics

- The Owners Corporation shall appoint a private contractor to collect food organics.

6. Access to Waste Facilities

- Access to bin rooms, chutes, drop-off areas, hard waste areas, and charity services will be via the proposed vehicle entrance and exit on the Upper Ground Floor. Refer to **Figure 4** for further details.
- **All residents shall be granted access to the Upper Ground Level where the Main Bin Store is located to dispose of their food organics, hard waste, and charity waste.**

Garbage and Recycling

- The residents of the following units have direct bin store access and shall manually place their garbage and recyclables into the appropriate collection bins located within the respective Bin Store:
 - **LG01-LG07** : Lower Ground Bin Store
 - **G01-G05** : Tower 1's Bin Store
 - **G06-G07** : Tower 2's Bin Store
 - Refer to **Figures 3 - 6, and Appendix 2** for further details.
- All other residents living on the upper levels shall dispose of their garbage and recyclables into chutes with a direct route to the collection bins located within the Bin Store.
- The proposed development will incorporate a dual chute system as indicated on the relevant floor plans. A chute room has been allocated on each upper apartment level. Each respective chute is to transfer general waste and recyclable waste from every upper residential level.
- Each chute door on each floor shall have proper labels to indicate the specific type of waste stream.
- The appointed building caretaker will have access to the Bin Store and **must regularly rotate the bins**, ensuring that all disposed wastes are able to reach the empty bins.

Voluntary Food Organics

- Provision for two exclusive food waste bins within the Main Bin Store. Refer to **Figure 4** and **Appendix 2** for further details.
- Residents are *encouraged* to manually place their food waste into the respective collection bins located within the Bin Stores.

Hard Waste and Charity

- Residents will manually place their hard waste or charity goods at the collection point within the proposed Bin Stores.
- A hard waste area of 3m² and a charity-goods area of 1m² have been allocated within the Main Bin Store. Refer to **Figure 4** and **Appendix 2** for further details.

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Figure 5: Residents' access to Lower Ground Floor Bin Store (source: Cera Stribley)



Figure 6: Residents' access to the allocated Bin Stores on Upper Ground Level (source: Cera Stribley)

7. Collection Frequency

- Below indicated the proposed waste collection frequency for the proposed development:

WASTE	COLLECTION FREQUENCY
Garbage	Twice Weekly
Recycling	Twice Weekly
Food Organics	Twice Weekly

8. Total Designated Bin Store Area & Number of Bins

Lower Ground Floor Bin Store

TOTAL NUMBER OF BINS TO BE STORED	REQUIRED BIN UNIT/S AREA/S (M2)	AVAILABLE BIN STORE AREA/S (M2)
<i>3 bins</i>	<i>1.49 m²</i>	<i>8 m²</i>

Main Bin Store

TOTAL NUMBER OF BINS TO BE STORED	REQUIRED BIN UNIT/S AREA/S (M2)	AVAILABLE BIN STORE AREA/S (M2)
<i>6 x 660L bins 3 m² hard waste collection area 1m² charity goods collection area</i>	<i>10 m²</i>	<i>26m²</i>

Tower 1 Bin Store

TOTAL NUMBER OF BINS TO BE STORED	REQUIRED BIN UNIT/S AREA/S (M2)	AVAILABLE BIN STORE AREA/S (M2)
<i>6 x 660L bins</i>	<i>6 m²</i>	<i>12 m²</i>

Tower 2 Bin Store

TOTAL NUMBER OF BINS TO BE STORED	REQUIRED BIN UNIT/S AREA/S (M2)	AVAILABLE BIN STORE AREA/S (M2)
<i>8 x 660L bins</i>	<i>8 m²</i>	<i>20 m²</i>

9. Collection Arrangements

- The waste collection vehicle will enter the project site and subsequently the apartments' carpark area to complete all collection services. The Owners Corporation is to ensure all engaged contractors be given the appropriate site access.
- Collection must be performed next to the respective bin stores within the Upper Ground Level area. **Direct truck access to bin areas is essential.** Adequate entrance design onto the area has been provided.
- The collection vehicle is to be parked next to each proposed Bin Area where the engaged contractors will disembark from the vehicle to transfer the bins or hard waste from the respective bin store onto the collection vehicle and back again.
- The vehicle must enter and exit the carpark area in a safe, forward manner.
- Given clearance limitations, it is recommended that a mini rear loader with an overall height of 2.08 metres and a total length of 6.40 metres be used to perform collection the bins. Refer to **Appendix 3**.
- If necessary, additional support equipment (ie. mechanical bin mover or manual bin tug) shall be used.
- Should the proposed system fail to cope, the Owners Corporation must make the necessary operation adjustments. The appointed building caretaker may be tasked to assist by preparing and presenting the bins during the agreed collection time for the arriving contractors. The efficiency of the collection process must be maximised.
- The principles, duties and rights within The Occupational Health and Safety Act (2004) and the Occupational Health and Safety Regulation (2007) will be adhered to by relevant parties in relation to bin movement to and from the collection area
- For increased safety, collections will be performed during off- peak traffic hours. Collection hours must be consistent with Monash Council's Community Local Law No. 3 Clause 162, which states hours are limited to 7AM to 8PM Monday to Saturday, and 9AM to 9PM Sundays.

10. Assessment of Town Planning Drawings

The inspected plans illustrate that **sufficient** space has been provided for onsite bin storage, as required by the above schedule and waste systems.

Collection frequency will also be sufficient.

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However, should the proposed waste system fail to cope, the Owners Corporation must make the necessary operational adjustments.

11. Noise Minimisation

Glass being emptied from collection bins and subsequently into the collection vehicle, and alarms from a reversing collection vehicle are identified as major sources of noise during the regular domestic waste collection.

- The following methods are recommended to be applied to minimise noise during collection hours:
 - Careful consideration of the proximity of the Bin Store and collection points to the future dwellings/residents. Increasing the distance will minimise the noise impacts
 - Design and planning interventions within the proposed scheme to minimise the need for the engaged collection vehicle to reverse.
 - Collection bins shall consist of a plastic lid and body, with rubber castors for quiet rolling during transfer periods.
 - Appropriate surface covers should be considered to minimise noise during bins transfer.
 - Insulation the chosen chute system.
 - All operations in public areas and roads shall adhere to local regulations.
 - In the case of a private service, collection hours must in adherence to Council's regulations. Additionally, Section 5 of the Victorian EPA Noise Control Guideline TG302/92 must be observed to minimise noise disturbance and preserve the acoustic amenity of the development and surroundings.
 - Private contractors will be required to negotiate their collection services with the relevant council so that their services for this address coincide with council's normal residential collection.

The operator shall ensure that the private collection contractor complies with the guidelines to minimise the acoustic impact of waste collection activities.

Victorian EPA Noise Control Guidelines, Publication 1254, October 2008 (excerpt)

Section 5. Domestic Refuse Collection

The main annoyance produced by domestic refuse collections occurs in the early morning (in other words, before 7 am).

Therefore, if possible, routes should be selected to provide the least impact on residential areas during that time.

Collection of refuse should follow the following criteria:

- Collections occurring once a week should be restricted to the hours 6 am — 6 pm Monday to Saturday
- Collections occurring more than once a week should be restricted to the hours 7 am — 6 pm Monday to Saturday
- Compaction should only be carried out while on the move.
- Bottles should not be broken up at the point of collection.
- Routes that service entirely residential areas should be altered regularly to reduce early morning disturbance.
- Noisy verbal communication between operators should be avoided where possible.

12. Litter & Pollution Reduction

Fulfilling the obligations below will minimise the dispersion of site litter and prevent stormwater pollution, thus avoiding negative impact to the local amenity and environment.

- Avoid irresponsible waste dumping by ensuring proper waste disposal into the appropriate collection bins.
- Preventing overfilled collection bins. Lids must be closed at all times, leak-free.
- Securing the Bin Area access solely to residents and relevant authorities, hence restricting any illegal dumping by non-authorized users.
- Taking action to prevent dumping and/or unauthorised use of waste areas
- All collection vehicles should fully secure and contain their loads. Should any spillage occur during collection time, the Owners Corporation must immediately arrange for clean-up.
- Performing frequent walk-throughs and random bin inspections around the development.

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13. Hygiene

- The Bin Store will be ventilated in accordance with Australian Standard AS1668. To minimise odour, air flowing from the Bin Store should not be discharged close to the units.
- The Bin Store will feature tightly fitted doors. All other openings shall have vermin-proof mesh or similar.
- The floor will be porous, smooth, slip-resistant, and have appropriate drainage.
- Store doors must be kept closed when unattended.
- The Bin Store must be easy to clean. It shall include a graded bin wash area with bibcock, hose, and floor-waste with silt trap, connected in accordance with the relevant authority requirements.
- The bin and wash areas may overlap, as stored bins can be moved-out so that a bin can be washed.
- The Owners Corporation is required to regularly clean the communal waste areas (including the bins, floors and walls) and any relevant waste equipment. It must also keep bin lids closed.

14. Design, Safety & Aesthetics

- Bin infrastructure shall be stored securely on the property, with all waste being placed within the respective bins and stored in the designated onsite areas (preferably screened or hidden from external view).
- Following waste collection activities, bins will be returned to the storage areas as soon as practicable.
- Waste facilities will be constructed from durable materials and finishes and maintained to ensure that the aesthetics of the development are not compromised. These facilities and associated passages shall be suitably illuminated. This provides comfort, safety, and security to users, staff, and contractors.
- The design and construction of waste facilities and equipment shall conform to the National Construction Code (NCC), Australian Standards, and local laws.
- Childproofing and public safety will be assessed and ensured.

15. Waste Sorting & Collection Responsibilities

- **Garbage:** Garbage to be placed inside tied plastic bags prior to transferring into the collection bins.
- **Recycling:** Items to be emptied of any food or liquid waste prior to disposal into the respective collection bin. Bagged recycling is not permitted.
 - Cardboard to be flattened prior to disposal into the respective collection bin.
- The Owners Corporation is responsible to ensure residents follow the Council's waste and recycling requirements.

16. Facility Management

- The Owners Corporation are responsible to maintain all waste areas and components (including signage), to the satisfaction all relevant parties.
- The Owners Corporation will ensure that proper maintenance and upgrades are carried-out on the facility and components of the waste system. This includes engaging an appropriate contractor to conduct the tasks.
- It is recommended that a building caretaker be responsible for managing the site's waste management procedures. Responsibilities may include: bins transfer, facility washing and maintenance, prompt removal of dumped rubbish, and educating residents about the various systems.

17. Protection of Waste Equipment

It will be the responsibility of the Owners Corporation to protect the equipment from theft and vandalism. This may include the following initiatives:

- Applying the necessary security measures to secure the Bin Store.
- Owners Corporation will ensure that only waste emanating from the development's residents is to be placed in the bins.
- Recycling facilities should be as convenient and accessible as their garbage counterparts. They should never stand alone, must be in proximity of the garbage bins.
- The private collection contractor shall transfer bins from the store to the truck and back (bins shall not be placed on the access ways).

18. Labelling, Education & Communication

- It is critical to provide future residents with appropriate **directional signage** towards the nearest bin storage area, as well as **instructional signage** containing what material to be placed in each bin. Signage is available at the following internet address:
 - <https://www.melbourne.vic.gov.au/residents/waste-recycling/apartment-buildings/Pages/waste-signage-for-apartments.aspx>
 - <https://www.sustainability.vic.gov.au/Government/Signage-and-resources/Public-place-waste-signage>
- When bins are allocated to service individual units or a pair of units, it is encouraged to number the bins with their corresponding property address.
- **The Owners Corporation shall publish and distribute “house rules” and educational material to:**
 - Inform residents about the waste management system and the use/location of the associated equipment.
 - Improve facility management results (lessen equipment damage, reduce littering, and achieve cleanliness)
 - Advise users to sort and recycle waste with care to reduce contamination of recyclables.
 - Encourage residents to reduce and recycle their food waste.

19. Sustainability Obligations & Initiatives

Disposed waste in landfills produces unwanted greenhouse gasses which contributes to the climate change. While breaking down, the materials will produce many by-products, including methane gas, which is “at least 21 times more potent than carbon dioxide”. Hence it is essential to reduce the amount of materials sent to landfills through efficient resource recovery services (of food waste and organics). As the State’s population is rapidly growing, it is essential to minimise waste generation and provide more efficient and accessible waste infrastructure within Victoria. Landfills should be regarded as the worst-case scenario, and more emphasis should be placed to **avoid, reuse, recycle** and **recover** waste.

Getting Full Value – the Victorian Waste and Resource Recovery Policy and Statewide Waste and Resource Recovery Infrastructure Plan (SWRRIP) have also recently been put in place to promote a more effective and integrated waste management system within Victoria. The two frameworks aim to be more responsible in addressing the environmental and public health risks of waste. Furthermore, *Getting Full Value* targets to “facilitate a Victorian waste and resource recovery system that maximises the economic value of waste.”

The Owners Corporation will observe the guidelines of the state’s initiatives and will encourage residents to participate in minimising the impact of waste on the environment.

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For a more responsible and sustainable waste management system, all relevant parties shall consider the following:

- Peruse the Sustainability Victoria Website: www.sustainability.vic.gov.au;
- Participate in council, community, and in-house programs for waste minimisation
- Establish waste reduction and recycling targets
- Promote on-site food management systems, such as compost bins, bokashi bins or worm farms.
- Conduct periodic waste audits, keep records, and monitor the amount of recyclables found in landfill-bound bins (sharing results with users/staff)

20. Current Programs

In hope to further minimise the amount of waste going to landfills, the following programs are available to educate and encourage residents/tenants towards a more efficient recovery system. Please check with the City of Monash for availability and eligibility.

- Detox your Home
- Love Food, Hate Waste
- Share Waste
- Scrap Food Waste in Monash campaign
- Discounted compost bin, bokashi bin, or worm farm

21. Strategy for the Future

The development's future waste requirements may be affected by future legal revisions in requirements (revised best practice standards, new/updated legislation, by-laws, etc) or changes to the development's own waste patterns (waste composition, volume, or distribution). Hence the Owners Corporation will be responsible for future-proofing the development's waste systems and making the necessary adjustments to the waste management system, including:

- Performing a waste audit on residents and defining new waste strategies to respond to the audit results;
- Revise the current waste system, which may include upgrading current bin size and quantity or adding new bins to respond to new waste streams. It is important to avoid installing any potential obstacles that would make it difficult to modify existing bin sizes.
- Re-educating residents about the appropriate use of the various waste management systems implemented.
- Updating the scope of services provided by the appointed collection contractor.

22. Policy, Legislation and Guidelines

The relevant policy, legislation and guidelines have been and should be considered when developing and administering a Waste Management Plan, including but not limited to:

- Environmental Protection Authority Act 2017
- Better Practice Guide for Waste Management and Recycling in Multi-unit Developments (*Sustainability Victoria*, 2018)
- Environment and Planning Act 1987
- Getting Full Value – the Victorian Waste and Resource Recovery Policy
- Work Safe Victoria's OHS Guidelines for the Collection, Transport and Un-Loading of Non-Hazardous Waste and Recyclable Materials
- AS 4123.1-7: Mobile Waste Containers, AS 1668.2: Odour, AS 2890.2: Parking Facilities, AS/NZS 5377:2013: E-waste, AS 4736-2006, AS 58110-2010: Biodegradable plastics, AS 4564-2012: Composts, AS 1319: Safety signs

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23. Summary of Waste Management Plan

1. The inspected plans indicate sufficient space has been allocated to meet the specifications as outlined in this report.
2. Collection arrangements and frequency will be sufficient.
3. Adequate access to all relevant parties is available.
4. Noise Minimisation as per Victorian EPA Noise Guidelines will be possible.
5. Litter, Pollution and Hygiene minimisation will be possible.
6. Safety, Design and Aesthetics of Bin Store is suitable.
7. Waste Management and Equipment Protection will be the owner's/Owners Corporation's responsibility.
8. Owners Corporation will be responsible for adjusting waste management strategies.
9. Obligations and initiatives regarding achieving Victoria's sustainability policies are being adhered to.

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24. Contact Information

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Waste Wise Environmental (private waste collector) ph 03 9359 1555

Cleanaway (private waste collector) ph 131339

KS Environmental (private waste collector) ph 03 9551 7833

Eco-Safe Technologies (odour control equipment supplier) ph 03 9706 4149

Solution for Workplace Health and Safety (OH&S consultant) ph 0425 802 669

Electrodrive Pty Ltd (tug & trailer supplier – for bin transfers) ph 03 9357 7699

Sabco Commercial (supplier of cleaner’s trolleys) ph 03 8698 2851

Sulo MGB Australia (bin supplier) ph 03 9357 7320

One Stop Garbage Shop (bin supplier) ph 03 9338 1411

Note: The above is a complimentary listing of collection contractors and equipment suppliers. The stakeholders are not obligated to procure goods/services from these companies. The Urban Leaf does not warrant (or make representations for) the goods/services provided by these suppliers.

25. Limitations

- The purpose of this report is to document a Waste Management Plan, as part of a Town Planning Application.
- This report is based on the following conditions:
 - Operational use of the development (excludes demolition/construction stages).
 - Drawings and information supplied by the project architect.
 - The figures presented in this report are estimates only. The actual amount of waste will depend on the development’s occupancy rate and waste generation intensity, the operator’s disposition toward waste and recycling, and the operator’s approach to waste management. The operator shall make adjustments, as required, based on actual waste volumes (if the actual waste volume is greater than estimated, then the number of bins and/or the number of collections per week shall be increased).

This report shall not be used to determine/forecast operational costs, or to prepare feasibility studies, or to document operational/safety procedures.

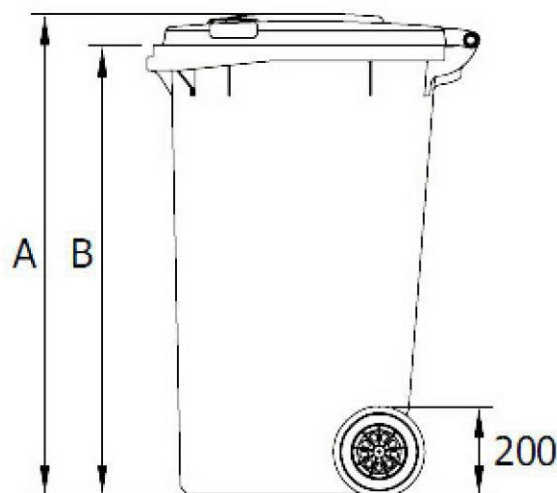
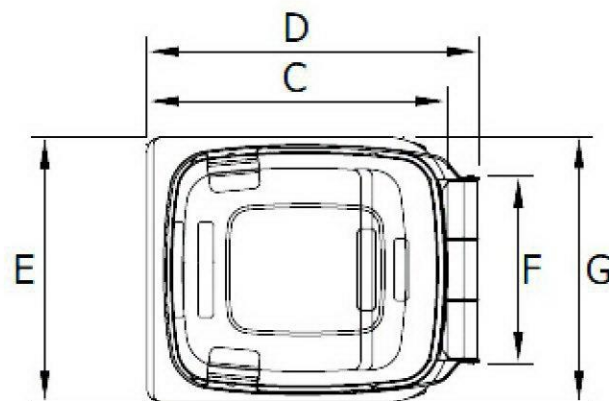
Appendix 1 – Bin Capacities & Dimensions

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

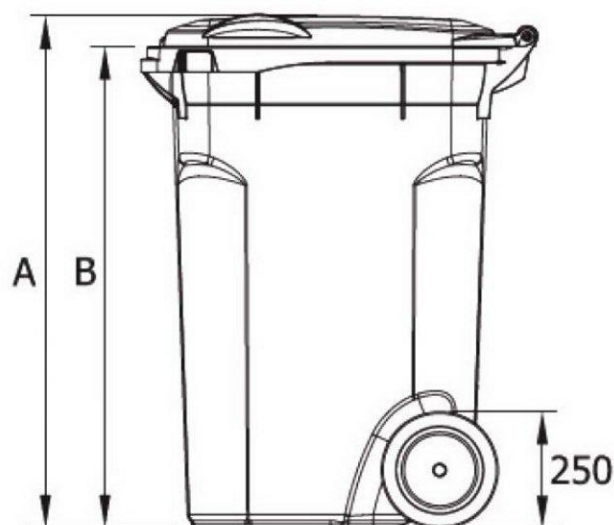
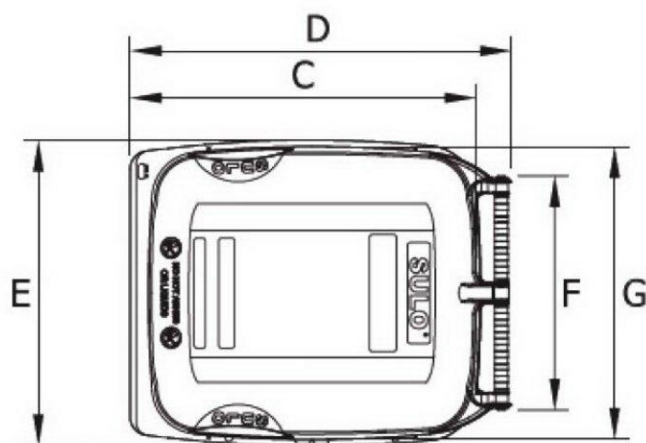


Dimensions – Weight – Standards

■ Nominal volume:	360 litres
■ Net weight:	approx 17 kg
■ Max load:	144 kg
■ Permitted total weight:	159 kg

■ A	1100 mm	■ D	848 mm	■ G	650 mm
■ B	1028 mm	■ E	680 mm		
■ C	770 mm	■ F	520 mm		

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

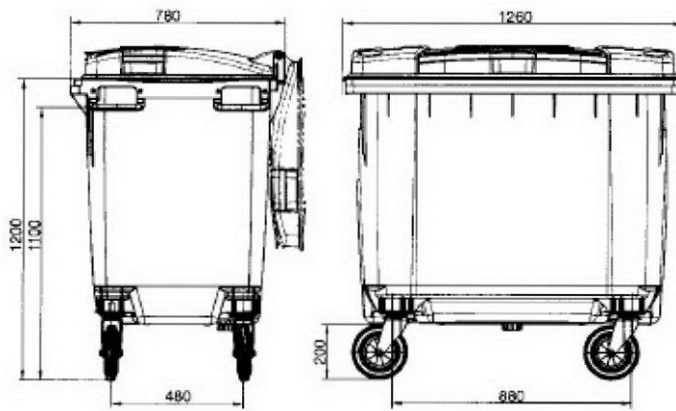


A L3, 433-435 South Road, Bentleigh VIC 3204
T 03 9553 7230
F 03 9555 4576
E energy@tul.net.au

Dimensions - Weights - Standards

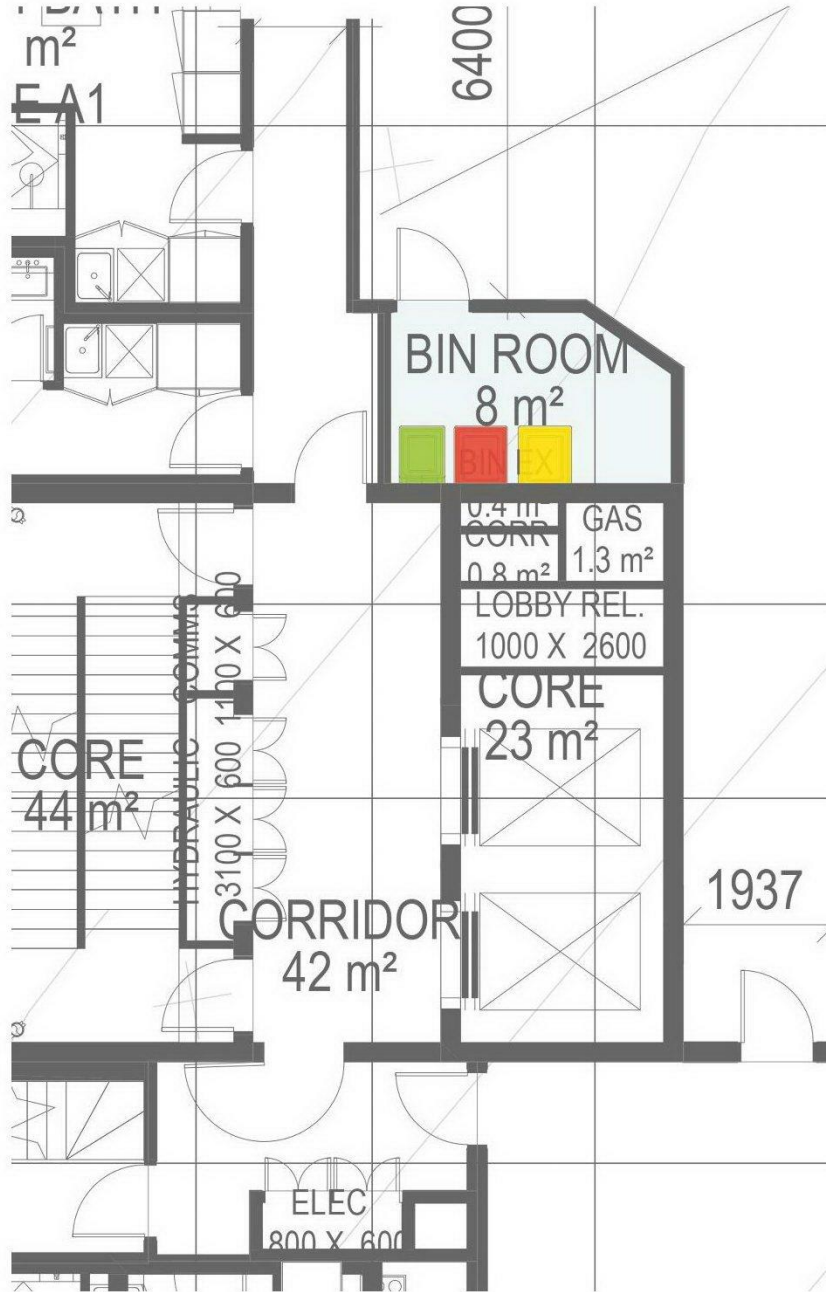
■ Nominal volume:	660 litres
■ Net weight:	43 kg
■ Max. load:	265 kg
■ Permitted total weight:	310 kg

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



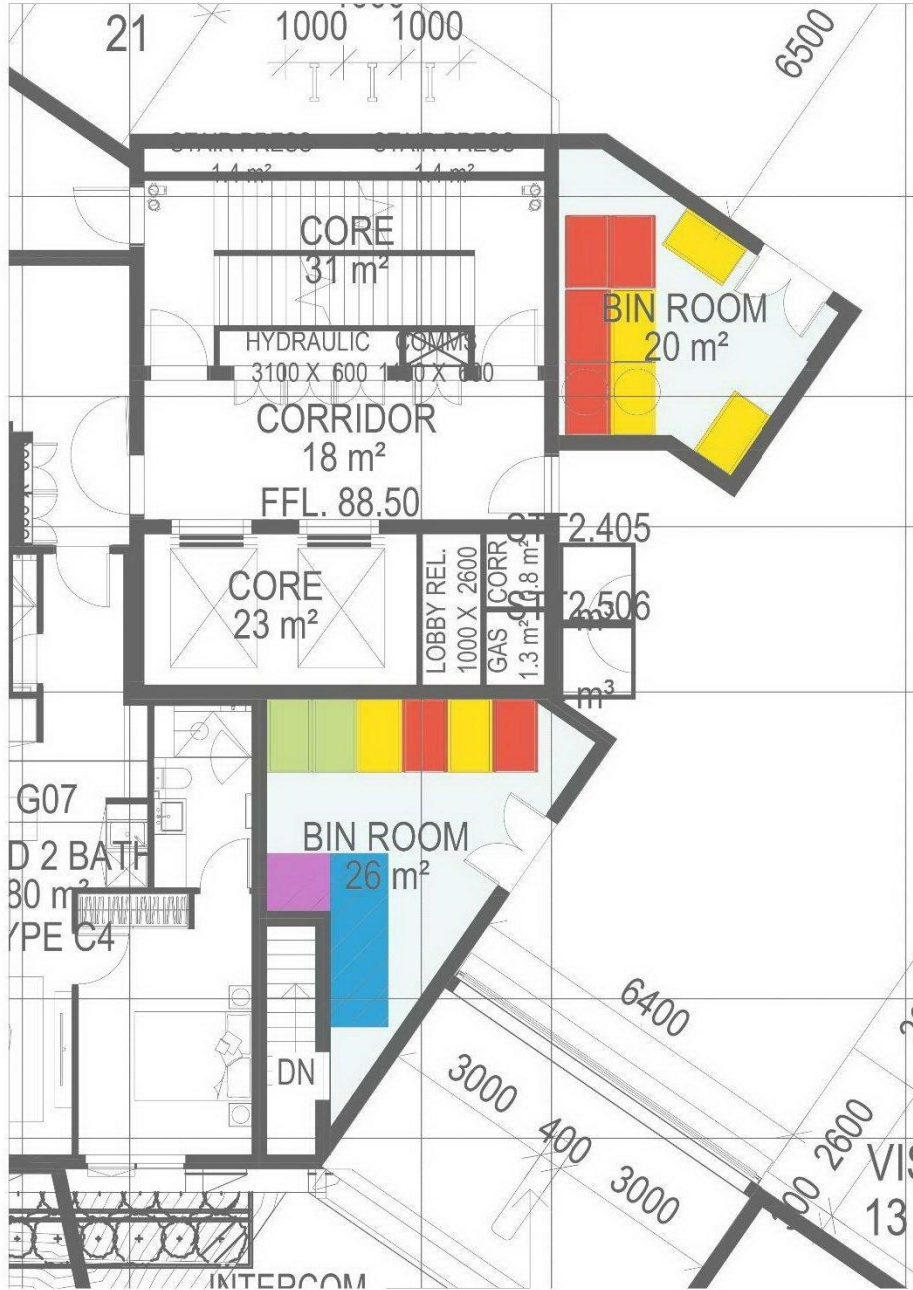
Appendix 2 – Shared Bin Layout

Lower Ground Floor Bin Store



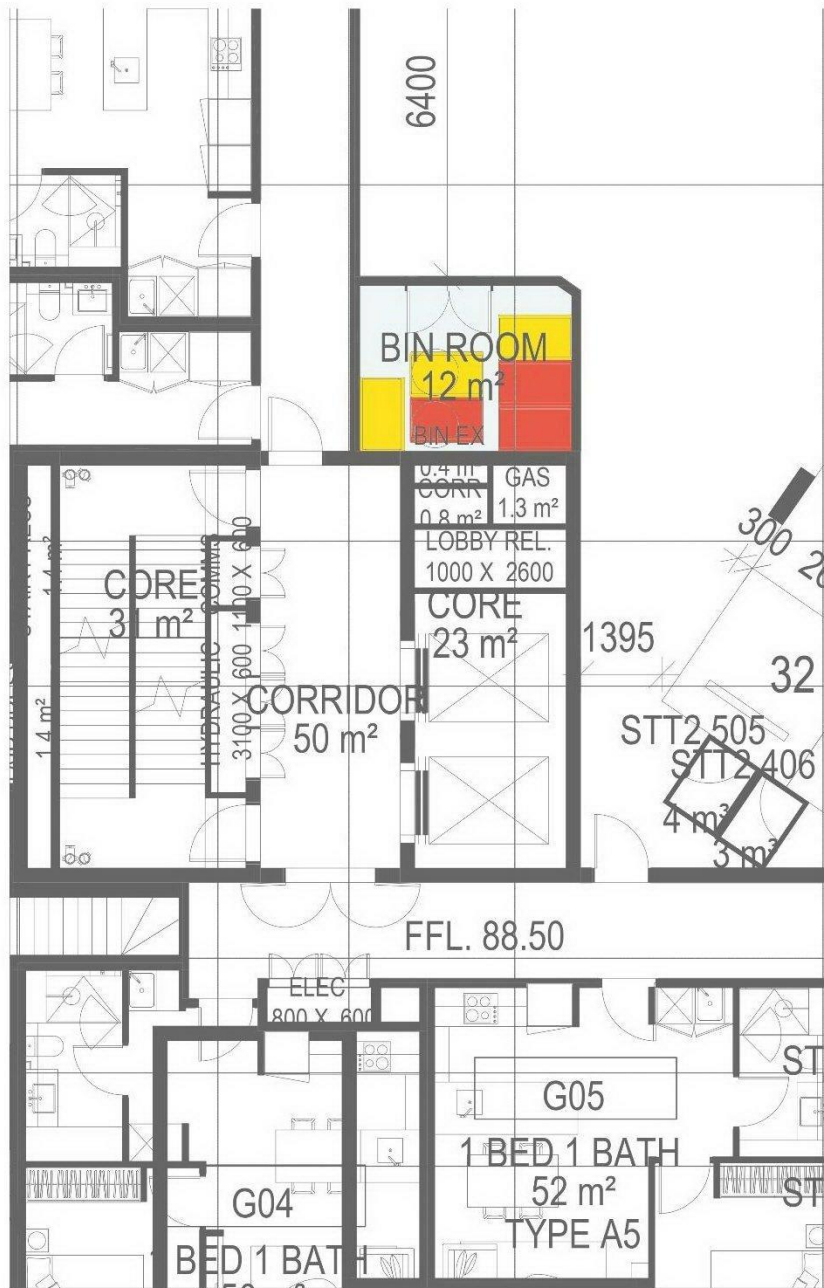
- A** L3, 433-435 South Road, Bentleigh VIC 3204
- T** 03 9553 7230
- F** 03 9555 4576
- E** energy@tul.net.au

Tower 2's Bin Store and Main Bin Store



- A** L3, 433-435 South Road, Bentleigh VIC 3204
- T** 03 9553 7230
- F** 03 9555 4576
- E** energy@tul.net.au

Tower 1's Bin Store

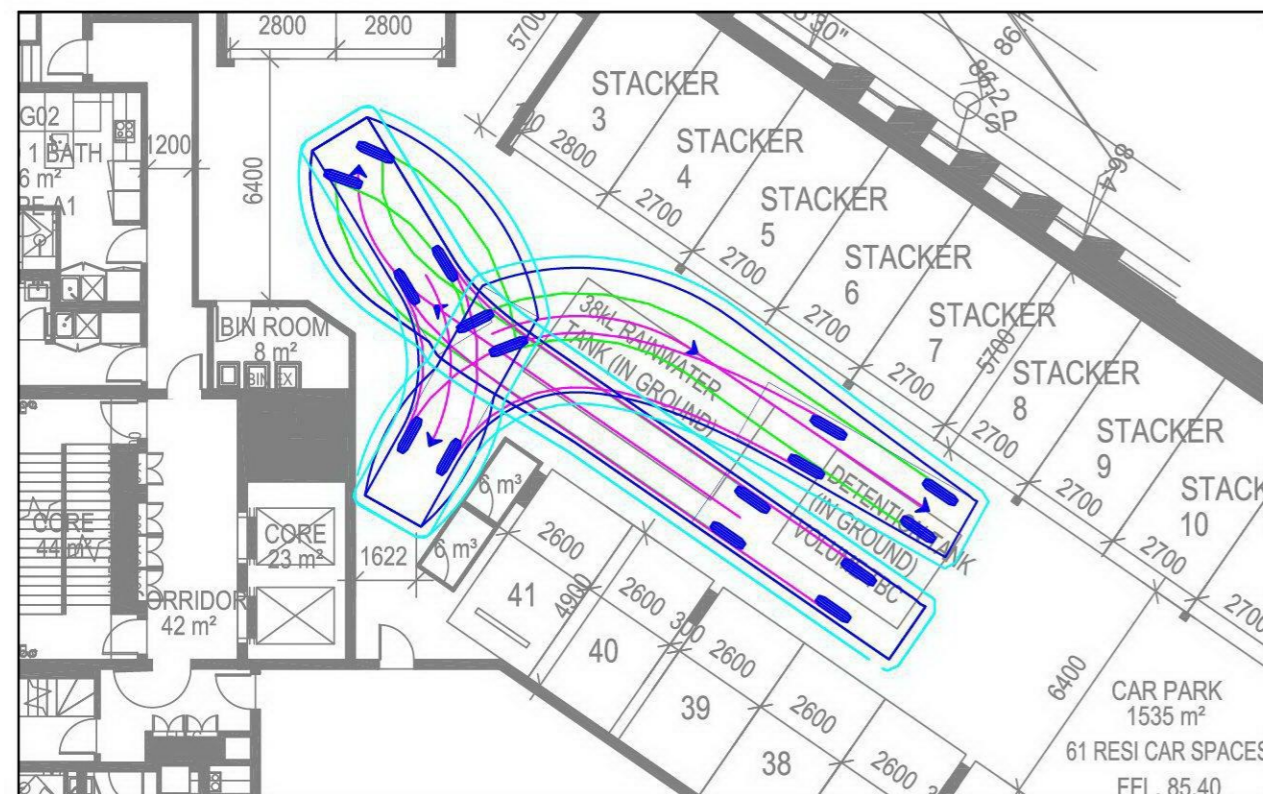


- | | |
|--|---|
| Garbage | Charity |
| Recycling | Hard Waste |
| Food Waste | |

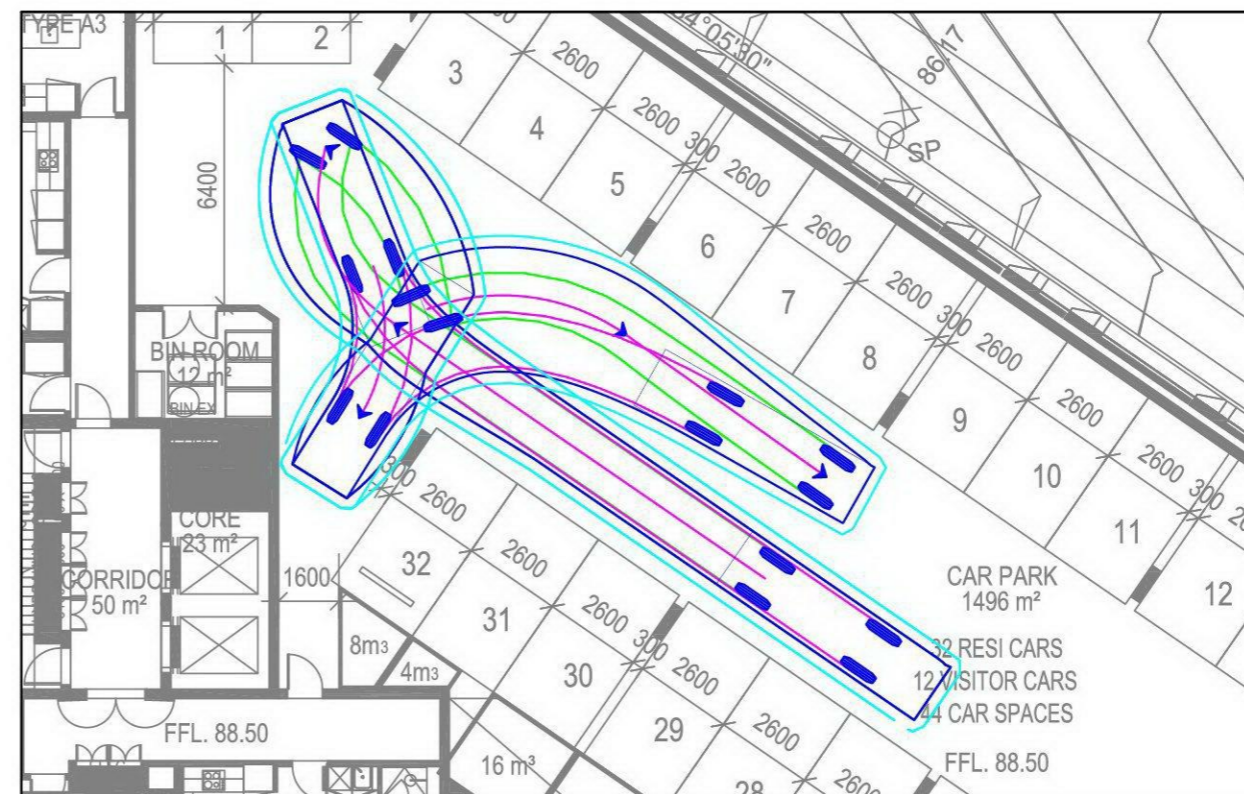
A L3, 433-435 South Road, Bentleigh VIC 3204
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F 03 9555 4576
E energy@tul.net.au

Appendix 4 – Swept Path Diagrams

WASTE TRUCK - UPPER GROUND BIN AREA



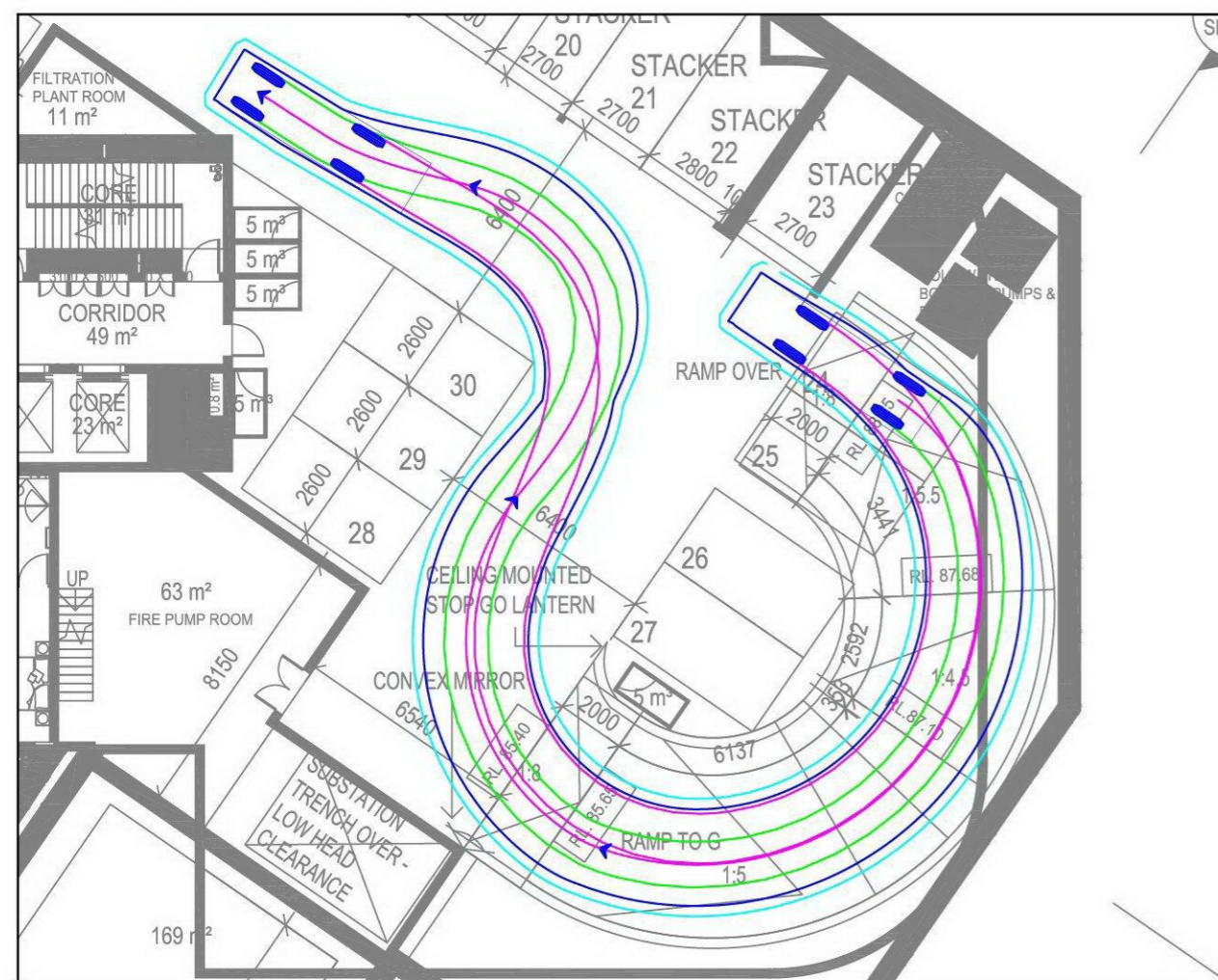
WASTE TRUCK - LOWER GROUND BIN AREA ACCESS



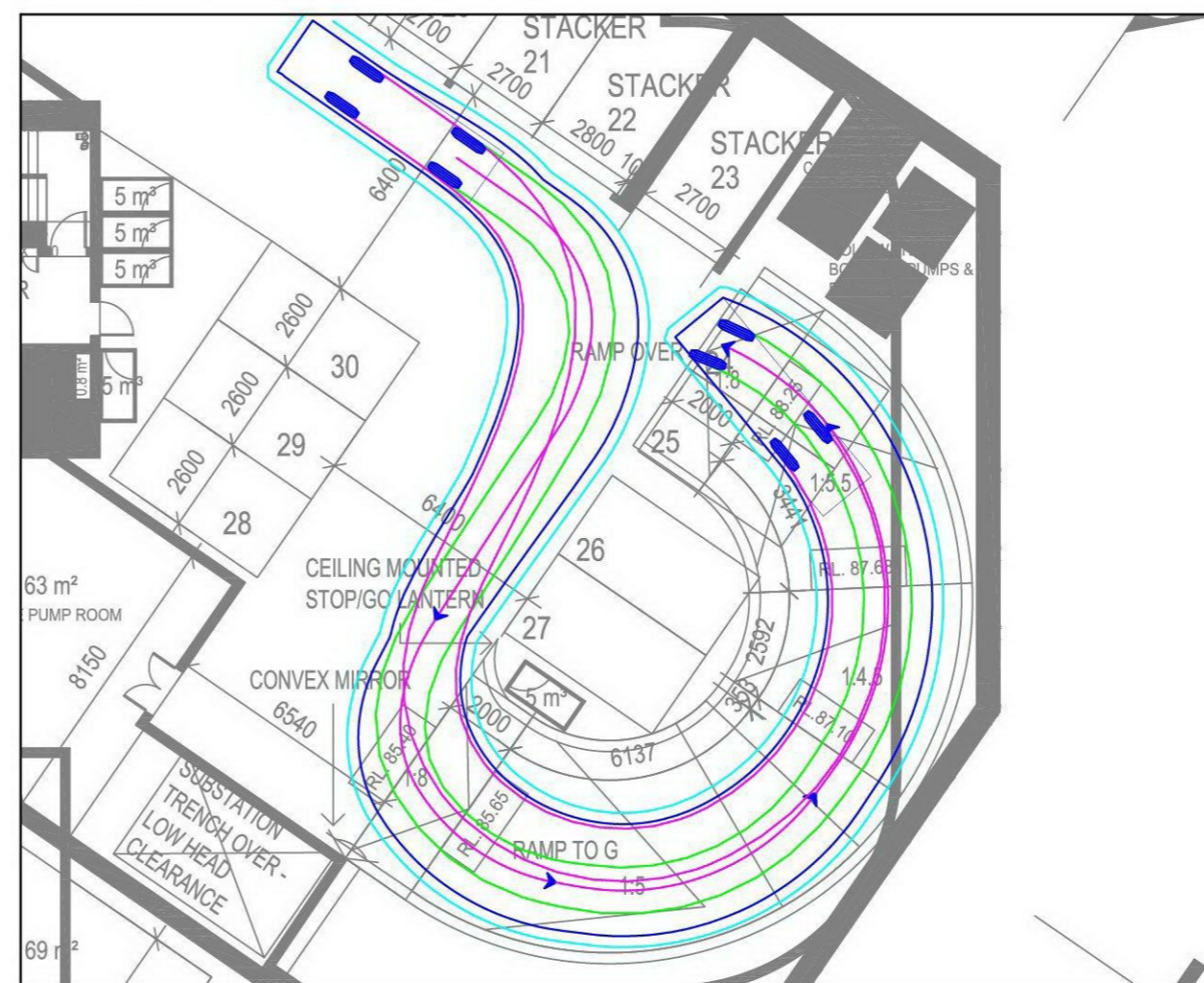
VEHICLE PROFILE



WASTE TRUCK - LOWER GROUND INGRESS



WASTE TRUCK - LOWER GROUND EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	13/10/2021	Apartment Amendment	F. BANH	M. WOOLLARD

149 HANSWORTH STREET, MULGRAVE
PROPOSED RESIDENTIAL DEVELOPMENT

GENERAL NOTES:
BASE INFORMATION FROM: SK-1001
AND SK-1002.dwg
PREPARED BY Cera Stribley -
received - 12-10-2021

FILE NAME: G27971-02
SHEET NO.: 01



SCALE: 1:200 (A3)

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