139-141 Hawthorn Rd, Caulfield North

Waste Management Plan

220906WMP001D-F.docx

29 August 2023

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DOCUMENT INFORMATION

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1 INTRODUCTION

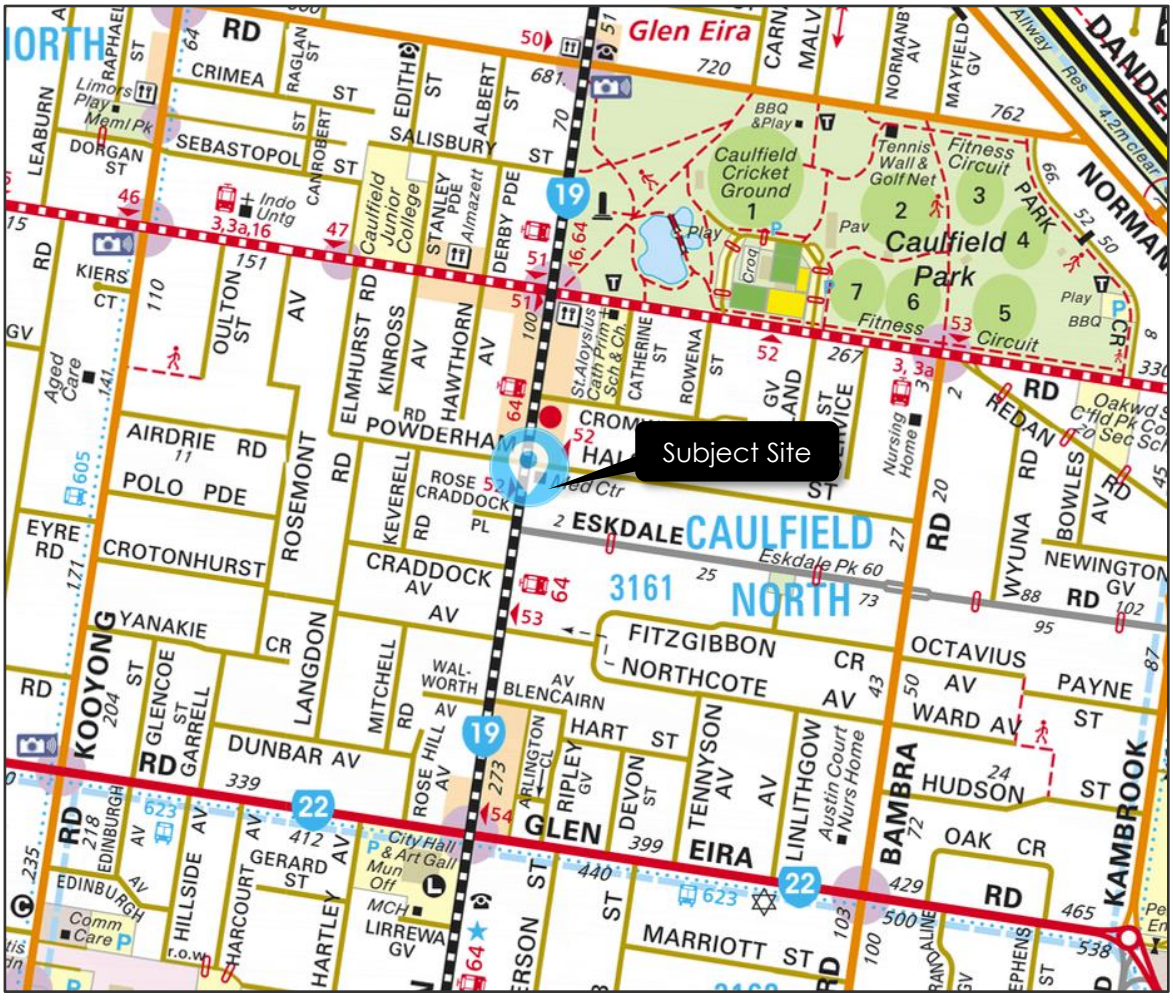
onemile**grid** has been requested by DO Architects to prepare a Waste Management Plan for the proposed residential development at 139-141 Hawthorn Rd, Caulfield North.

The preparation of this management plan has been undertaken with due consideration of the Sustainability Victoria Better Practice Guide for Waste Management and Recycling in Multi-unit Developments and relevant Council documentation.

2 EXISTING SITE CONDITIONS

The subject site is located on the east side of Hawthorn Road, approximately 260 metres south of Balaclava Road and is addressed as 139-141 Hawthorn Rd, Caulfield North, as shown in Figure 1.

Figure 1 Site Location



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The site has a frontage of approximately 29m to Hawthorn Road, and an abuttal of approximately 44m to Halstead Street. The site is currently occupied by Caulfield Park Clinic at 139 Hawthorn Road, and a hair salon at 141 Hawthorn Road.

3 DEVELOPMENT PROPOSAL

3.1 General

It is proposed to develop the site for the purposes of a four-storey residential development, to accommodate 26 apartments, as shown in Table 1. The existing two buildings on site are to be demolished to allow for construction of the apartment building.

The complex comprises one and two bedroom apartments across three levels, accompanied by designated courtyard and balcony spaces for each residence. Additionally, communal outdoor space at the Hawthorn Road frontage is proposed, along either side of the entry walkway to the building.

Vehicular access to the site is proposed via a single width crossover to Halstead Street, within the site's north-eastern corner to facilitate inbound and outbound movements. Car parking is to be provided within the basement level of the building, along with designated storage and service areas.

Table 1 Proposed Development

Component	*No/Area*
1-Bedroom Apartment	12
2-Bedroom Apartment	14
Total Apartments	**26**

3.2 Waste Management

It is proposed to utilise a private contractor to manage the collection and disposal of all waste streams associated with the development, with the exception of hard waste which will be collected by council from the kerbside. Waste bins will be stored within a dedicated bin storage area within the basement, with the bin room being shared between residents.

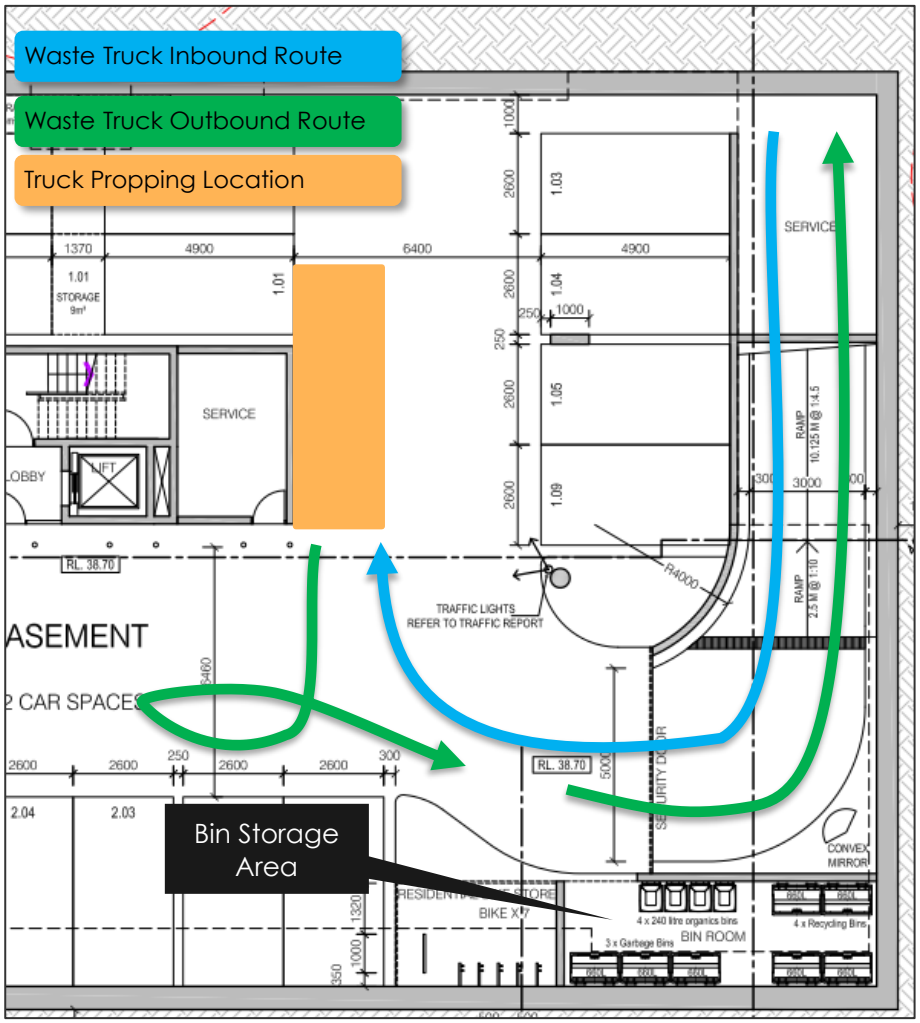
Bins will be collected by a private contractor from the basement level. On collection days the waste truck (6.4 m rear-lift waste collection vehicle (mini-loader)) will enter the basement via the ramp, and prop in the vicinity of the bin storage room. Bins will be transferred by the contractor from the storage room to the waiting waste collection vehicle and then emptied. Following collection, bins will immediately be collected and returned to the bin room and the truck will be able to exit the basement to Halstead Street in a forward direction.

Residents will be responsible for transferring each waste stream to the bins within the basement bin room. Each of the waste streams are deposited in the same manner which ensures that they are equally convenient, and residents are more likely to separate into the respective streams.

The collection location and expected vehicle route is shown in Figure 2.

Swept path diagrams showing the movements of the waste collection vehicle are attached in Appendix A.

Figure 2 Bin Storage Room and Collection Details



4 WASTE GENERATION

4.1 Sustainability Victoria Recommended Rates

Glen Eira City Council has identified and adopted Sustainability Victoria Recommended Waste Generation Rates for various dwelling types.

In relation to residential dwellings, Sustainability Victoria indicates that approximately 35% of garbage is made of food waste, therefore, the provision of organics waste collection can result in a reduction in garbage generation by 35%.

Based on the above, the following rates are suggested.

Table 2 Sustainability Victoria Recommended Rates – Residential

Dwelling Size	*Garbage*	*Recycling and Paper*	*Organics*
1 bedroom or studio apartment	52L	80L	28L
2-bedroom apartment	65L	100L	35L

4.2 Expected Waste Generation

4.2.1 Garbage, Organics and Recycling

Based on the Sustainability Victoria/Council's adopted waste generation rates, the following weekly generation is expected.

Table 3 Garbage Composition Percentages

Dwelling Size	*No. of Dwellings*	*Garbage Waste*	*Recycling Waste*	*Organics Waste*
1 bedroom or studio apartment	12	624 L	960 L	336 L
2-bedroom apartment	14	910 L	1400 L	490 L
Total	**26**	**1534 L**	**2360 L**	**826 L**

4.2.2 Glass Recycling

It is understood that Glen Eira City Council will transition to separate glass recycling by 2027, and at that time, it is recommended that this Waste Management Plan, and the private waste collection, be updated to include separate glass recycling.

To accommodate this, the bin area room has been appropriately sized to allow for the additional glass recycling bin that is set to be implemented by 2027.

4.2.3 Green Waste

Given the nature of the proposed development and dwellings (being multi-unit/multi-level), it is expected that green waste generation will be minimal or negligible, and therefore a green waste collection service is not expected to be required.

It is expected that any maintenance and gardening undertaken on common property will be managed by a contractor appointed by the Owner's Corporation/building manager. The appointed contractor will be responsible for the disposal of any green waste accumulated during the course of their duties.

4.2.4 Hard Waste

Glen Eira City Council provides three at-call hard waste collections and three at-call bundled branch collections per dwelling per year, with an allowance for 4 cubic m of hard waste per dwelling per collection.

The Halstead Street frontage provides a length of approximately 30 m for hard waste storage, which would generally allow for 7 or 8 dwellings to have hard waste collected on a single day, if each dwelling generated 4 cubic m per call-out.

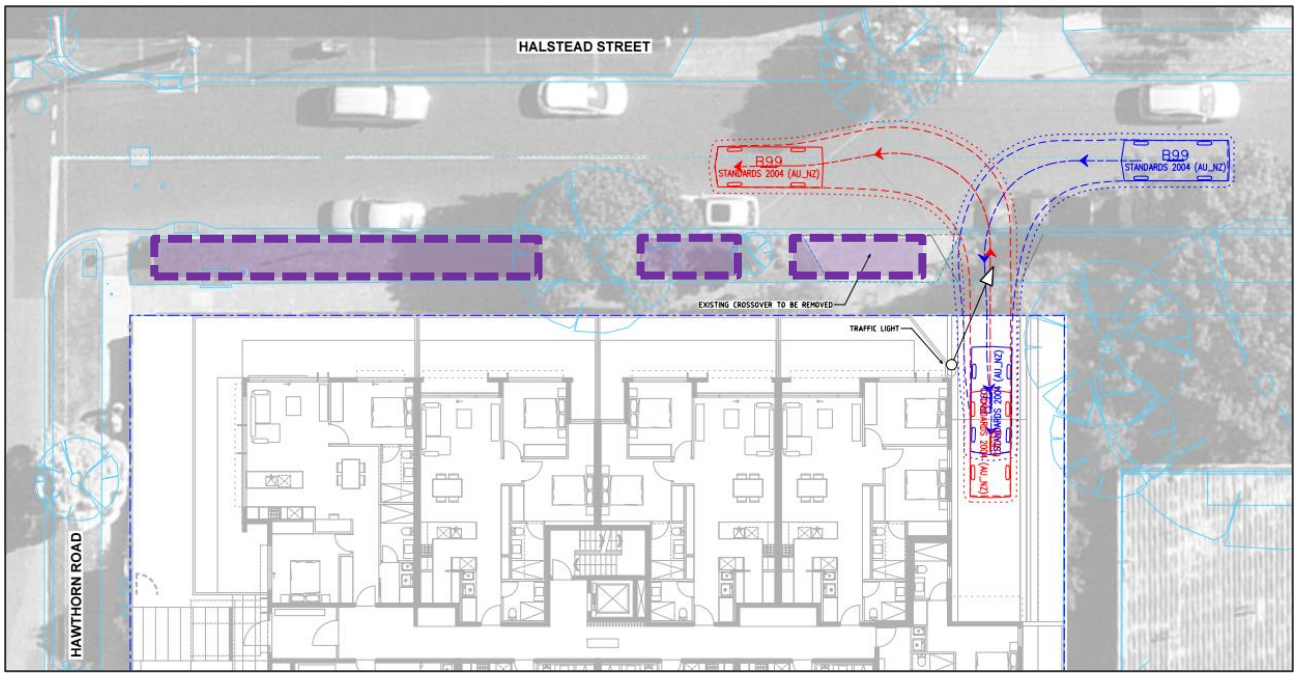
It is recommended that the hard waste collection is managed by the Owners Corporation, to minimise Council call-outs, and to ensure that hard waste storage on-site is not required.

Hard waste will not be moved to the kerbside collection location until the evening before the hard waste collection.

Additional to the above, hard waste may be disposed of independently by residents, at Council's Recycling Centre/Transfer Station.

The proposed on-street hard waste collection area is shown below in Figure 3.

Figure 3 Hard Waste Collection Area



4.2.5 Electronic Waste (E-Waste)

E-waste includes all manner of electronic waste, such as televisions, computers, cameras, phones, household electronic equipment, batteries and light bulbs. E-waste contains valuable materials that can be recovered and reused such as tin, nickel, zinc, aluminium, copper, silver and gold.

On 1st July 2019, the disposal of E-waste to landfill was banned by the Victorian Government.

A large number of e-waste collection points are available in Victoria and private contractors are equipped with the resources to undertake E-waste collections.

All E-waste generated by the residential development will be managed by the Owner's Corporation with coordinated collections of E-waste. E-waste collections will be communicated to tenants to ensure that all E-waste is collected as required. The owner's corporation will engage a private contractor for any E-waste collections; likely to be the same contractor providing general waste and recycling collection, though using a separate collection vehicle.

Council does not provide a residential kerbside pick-up service for E-waste, therefore E-waste must be taken by residents to the appropriate collection centre, as described below:

- Planet Ark operate a number of e-waste recycling drop-off locations throughout Victoria (https://recyclingnearyou.com.au/electrical);
- Officeworks stores accept small amounts of personal E-waste;
- Aldi stores accept batteries; and
- Some Bunnings stores accept batteries.

Additional recycling locations are provided at https://recyclingnearyou.com.au/

5 BIN REQUIREMENTS

5.1 Bin Provision and Specifications

It is proposed to utilise a private waste contractor for the garbage, recycling and organics waste streams.

Consequently, the following bins will be required for the proposed development.

Table 4 Bin Provision

Stream	*Total Waste/Week*	*Bin Size*	*Collection Frequency*	*Bins Required*
Garbage	1,534 L	660 L	Weekly	3 bin
Recycling	2,360 L	660 L	Weekly	4 bins
Organics	826 L	240 L	Weekly	4 bins
Total				**11 bins**

It noted that Glen Eira City Council has previously requested organic waste bins be provided over and above the normal garbage requirements. It is noted that the provision of 3 garbage bins can accommodate almost 2,000 litres of garbage, which is well in excess of the expected waste generation rate, and is therefore considered appropriate, even if usage of the organics bins is less than anticipated.

In relation to glass recycling, the use of separate recycling bins for glass will result in a reduction in commingled recycling waste generation, and therefore a future glass recycling stream can be accommodated by replacing one of the commingled recycling bins for a glass waste bin, with no change in the number of bins required.

Typical bin specifications are indicated below.

Table 5 Bin Specifications

Stream	*Capacity*	*Width*	*Depth*	*Height*	*Area*
Garbage	660 L	1.25m	0.80m	1.30m	1.00 m^2
Recycling	660 L	1.25m	0.80m	1.30m	1.00 m^2
Organics	240 L	0.60m	0.75m	1.10m	0.45 m^2

Bins are to be colour coded to the Australian Standard (AS4123), as below.

Table 6 Bin Colours

Stream	*Colour*
Garbage	Red lid and dark green or black body
Commingled Recycling	Yellow lid and dark green or black body
Organics	Light Green lid and dark green or black body

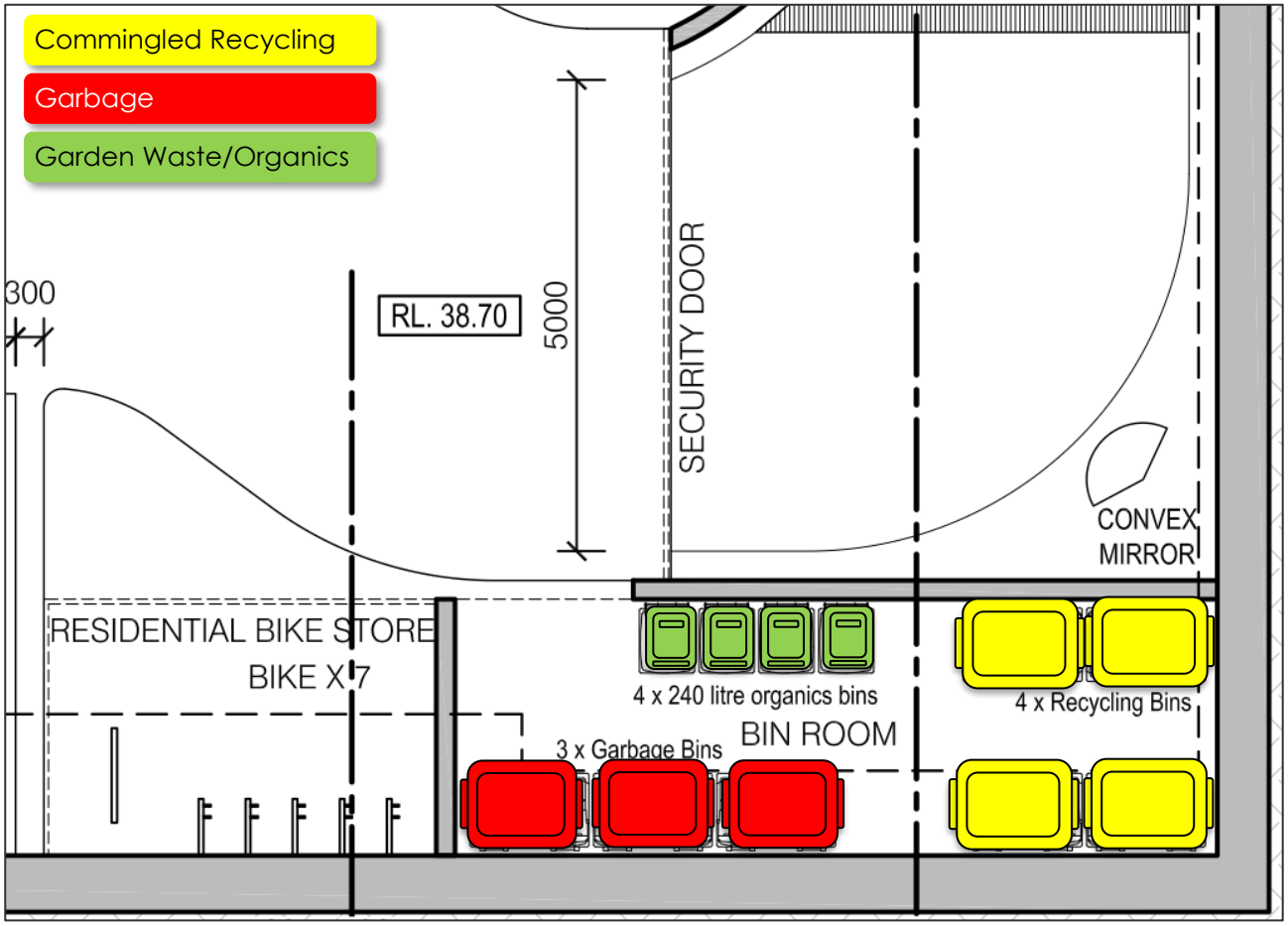
5.2 Bin Storage

As indicated in Figure 2, it is proposed to provide a bin storage area on the basement level of the proposed development. The layout of the bin storage area is shown in Figure 4, which demonstrates that the area is capable of accommodating the required bins, as calculated in Table 4.

Some additional area is also provided within the bin storage room to allow for the temporary storage of bulk items and packaging, under the control of the Owners Corporation/building manager. Furthermore, the bin storage room is located appropriately for access by residents, and is secured from the common areas.

The bin storage room shall be ventilated, and shall be cleaned regularly by the operator or waste collection contractor, to minimise odour.

Figure 4 Bin Storage Room Layout



5.3 Bin Collection

The waste collection vehicle, a 6.4 m rear-lift waste collection vehicle (mini-loader), will enter the basement and prop adjacent the bin store, from where the bins will be transferred directly to the waiting truck for emptying. The bins will be returned to the bin storage area immediately following collection.

Swept path diagrams showing the movements of the waste collection vehicle are attached in Appendix A.

5.4 Bin Cleaning

The Owners Corporation shall ensure that the shared residential bins are kept in a clean state, to minimise odours and to discourage vermin. This may include regular cleaning by a third party, cleaning by the waste contractor, bin swapping by the waste contractor, or maintenance by residents.

A bin cleaning area should be provided within the bin storage room.

6 WASTE MANAGEMENT

6.1 Best Practice Waste Management

Best Practice Waste Management is an initiative designed to reduce the amount of waste generated through encouraging a change of behaviour and action on waste management and moreover recycling.

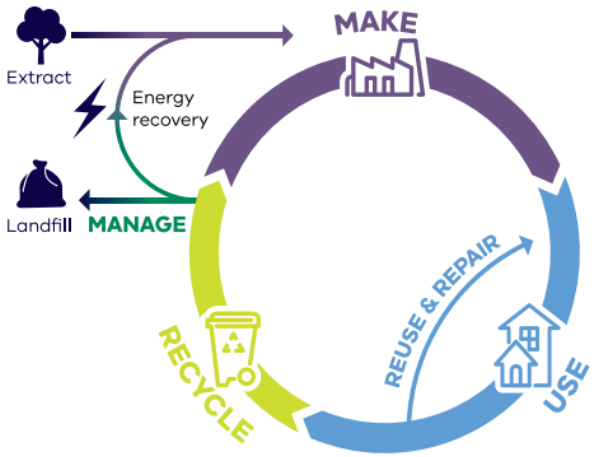
The benefits of reducing waste generation are far reaching and have been identified as significantly important by Council and the Victorian Government.

Recycling Victoria: A New Economy is a policy and 10-year action plan, prepared by the Victoria Government, to "deliver a cleaner, greener Victoria, with less waste and pollution, better recycling, more jobs and a stronger economy".

Four overarching goals have been identified in order to achieve a circular economy in relation to waste, as below:

1. MAKE – Design to last, repair and recycle;
2. USE – Use products to create more value;
3. RECYCLE – Recycle more resources;
4. MANAGE – Reduce harm from waste and pollution.

Figure 5 Resource Flows in a Circular Economy



In relation to the proposed development, recycling is of key importance, and in this regard, the Owners Corporation shall encourage residents to participate in minimising and reducing solid waste production by:

- Promoting the waste hierarchy, which in order of preference seeks to:
  - Avoid waste generation in the first place;

- Increase the reuse and recycling of waste when it is generated; and
- Recover, treat or contain waste preferentially to;
- Its disposal in Land Fill (which is least desirable).

- Providing information detailing recyclable materials to ensure that non-recyclable materials do not contaminate recycling collections;
- Providing information regarding safe chemical waste disposal methods and solutions, including correct battery and electronics disposal methods;
- Encouraging composting for residents; and
- Providing tips for recycling and reusing waste, including encouraging the disposal of reusable items in good condition via donations to Opportunity Shops and Charities.

Additionally, it is recommended that a three bin system is provided within each apartment, providing separate bins for garbage, recycling and organics.

6.2 Bin Usage

Residents will bag and dispose of garbage in the provided bins, located in the bin storage room.

Residents will transport and dispose of recyclables and organic waste (non-bagged) in the provided bins, located in the bin storage room. Cardboard boxes should be flattened, and containers rinsed and cleaned prior to disposal in the provided bins.

6.3 Common Property Litter and Waste Removal

The proposed development includes a number of common property areas, including foyers, hallways, the bin storage area and communal outdoor spaces.

The Owners Corporation shall ensure that all common areas are kept clear of litter, and that all waste is removed from common areas on a regular basis. This includes the bin storage area in particular, to discourage vermin.

Given the small number of dwellings, it is considered appropriate that the removal of litter and waste from common areas is undertaken by residents, under the management of the Owners Corporation.

6.4 Signage

To avoid contamination between garbage streams, bin lids will be colour coded generally in accordance with contractor standards, to ensure the bin type is easily distinguishable. Furthermore, bins should include typical signage (preferably on the bin lid) to reinforce the appropriate materials to be deposited in each bin. Example signage is shown below.

Figure 6 Example Waste Signage

6.5 Collection

On collection days, all bins will be transported by the private contractor from the bin storage room to the waste collection vehicle, parked within the basement level. Bins will be emptied into the vehicle, then immediately returned to the bin storage room.

6.6 Noise Control

It is noted that with the bin storage and collection area being situated within the basement car park, disturbance to residents during waste collection will be minimal. Regardless, to minimise the disturbance to residents during waste collection, the collection should follow the criteria specified by the EPA, as below:

- Collections occurring once a week should be restricted to the hours 6:00am to 6:00pm, Monday to Saturday;
- Collections occurring more than once a week should be restricted to the hours 7:00am to 6:00pm, 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; and
- Noisy verbal communication between operators should be avoided where possible.

6.7 Resident Information

To ensure all residents are aware of their responsibilities with regard to waste and bin management, an information package will be provided by the Owners Corporation to all residents, including the following information:

- A copy of this Waste Management Plan;
- Methods and techniques for waste reduction and minimisation;
- Information regarding bin collection days and requirements;
- Resident and tenant responsibilities with regard to bin usage, storage, and collection; and
- Resident and tenant responsibilities with regard to litter and waste removal from the common property.

7 OCCUPATIONAL HEALTH & SAFETY RESPONSIBILITIES

The Owners Corporation/site operator shall ensure compliance to all relevant OH&S regulations and legislation, including the following:

- Worksafe Victoria Guidelines for Non-Hazardous Waste and Recyclable Materials

8 CONTACT INFORMATION

8.1 Council

Glen Eira City Council

Phone: (03) 9524 3333 (Customer Service)

Web: www.gleneira.vic.gov.au

Email: mail@gleneira.vic.gov.au

8.2 Contractors

Urban Waste

Services: Private contractor

Phone: 0429 309 269

Web: www.urbanwaste.com.au

Email: info@urbanwaste.com.au

iDump

Services: Private contractor

Phone: 1300 443 867

Web: www.iDump.com.au

Email: info@idump.com.au

Cleanaway

Services: Private contractor

Phone: 131 339

Web: www.cleanaway.com.au/

Corio Waste Management

Services: Private contractor

Phone: 1300 267 4696

Web: www.coriowm.com.au

JJ Richards & Sons

Services: Private contractor including bin tugs

Phone: (03) 9703 5222

Web: www.jjrichards.com.au

Email: operations.melbourne@jjrichards.com.au

WasteWise

Services: Private contractor

Phone: 1300 550 408

Web: www.wastewise.com.au

BioPak (Organic Waste Compost Service)

Services: Private contractor

Phone: 1300 246 725

Web: www.biopak.com.au/compost-service

8.3 Equipment

Eco-Safe Technologies (odour control equipment)

Phone: 0411 335 753

Web: https://eco-safe.com.au/

Email: info@eco-safe.com.au

8.4 Others

Sustainability Victoria

Services: Sustainable Waste Management initiatives and information

Phone: 1300 363 744 (Energy, Waste and Recycling)

Web: www.sustainability.vic.gov.au

Email: info@sustainability.vic.gov.au

Appendix A Swept Path Diagram

HALSTEAD STREET

HAWTHORN ROAD

Mini Loader (V)
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Mini Loader (V)
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EXISTING CROSSOVER TO BE REMOVED

TRAFFIC LIGHT

N

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SWEPT PATH LEGEND

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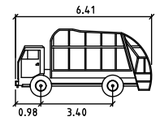

WASTE MINI LOADER meters

Width	: 1.85
Track	: 1.85
Lock to Lock Time	: 4.0
Steering Angle	: 33.6

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Phone (03) 9939 8250

Scale 1:200 @ A3 (0 1 2 4)

Drawing Title
139-141 HAWTHORN ROAD, CAULFIELD NORTH
VEHICLE SITE ACCESS - GROUND
SWEPT PATH ANALYSIS

Designed	Approved	Melway Ref
CM	JS	68 A1

Project Number	Drawing Number	Revision
220906	SPA100	B

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Aerial Photography
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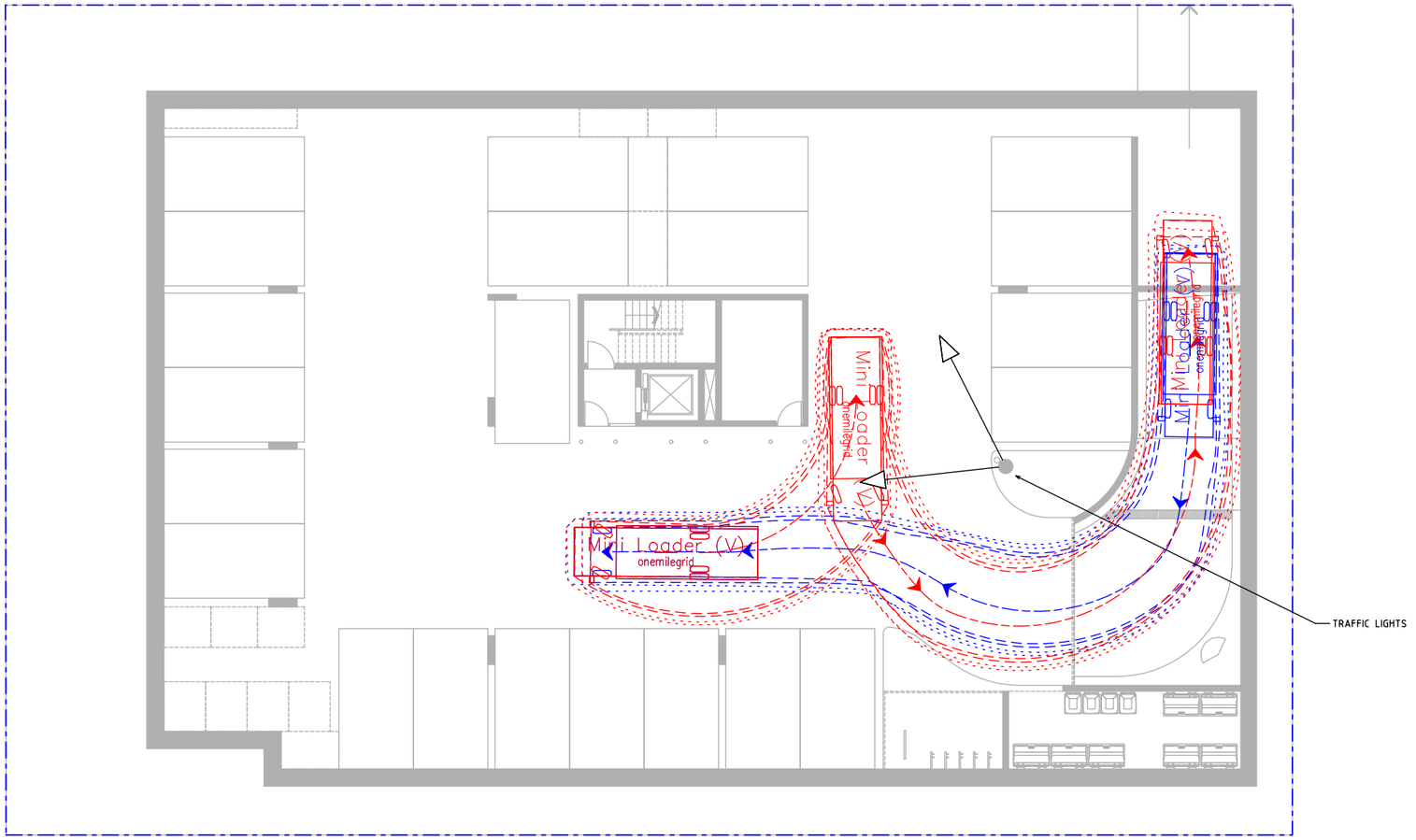

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SWEPT PATH LEGEND

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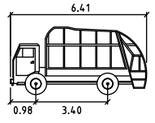

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Scale 1:200 @ A3 (0 1 2 4)

Drawing Title
139-141 HAWTHORN ROAD, CAULFIELD NORTH
VEHICLE SITE ACCESS - BASEMENT
SWEPT PATH ANALYSIS

Designed	Approved	Melway Ref
CM	JS	68 A1

Project Number	Drawing Number	Revision
220906	SPA200	B

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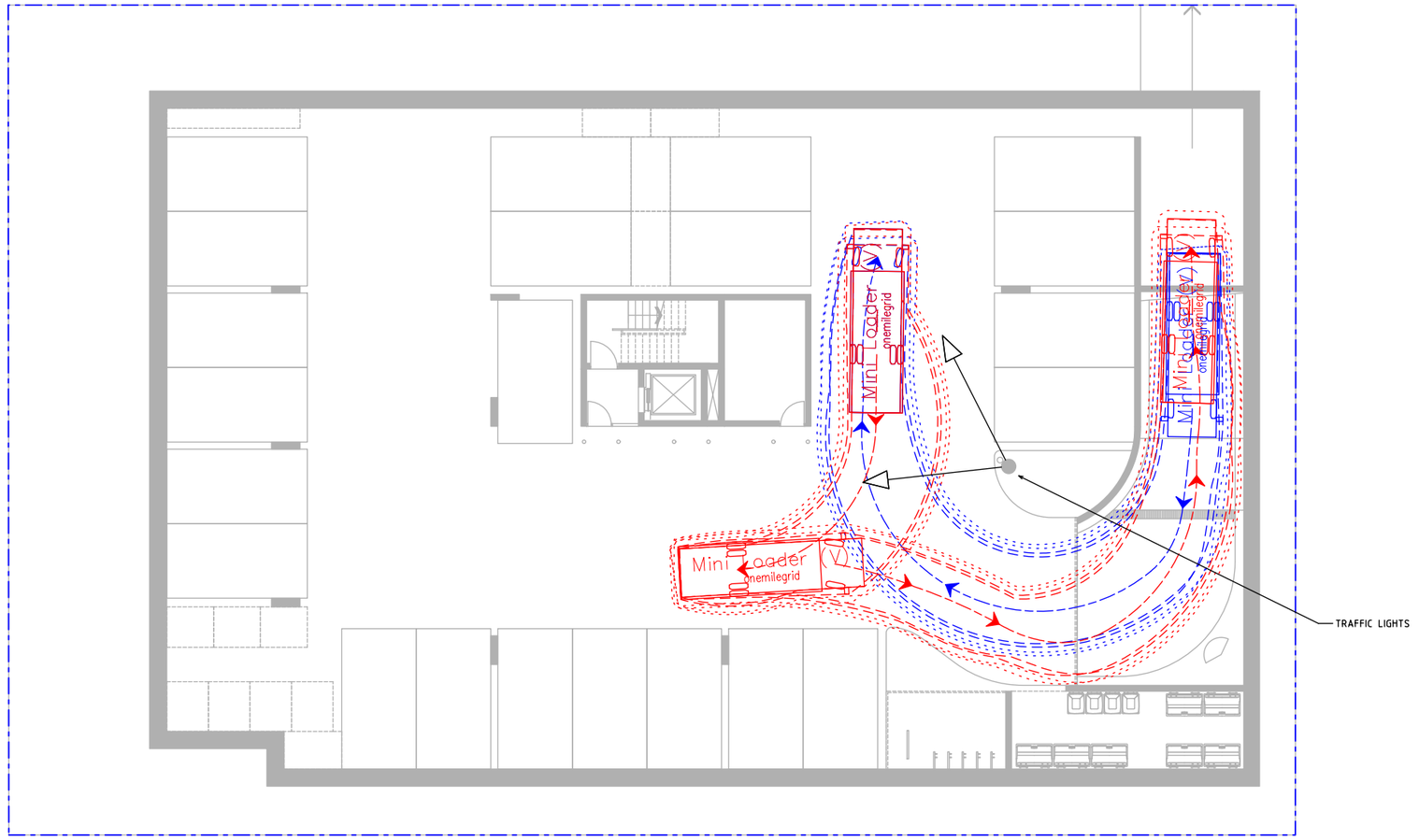

SWEPT PATH LEGEND

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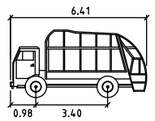
- - - - - - - - - 300mm CLEARANCE ENVELOPE SHOWN DOTTED



WASTE MINI LOADER meters

Width	: 1.85
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Lock to Lock Time	: 4.0
Steering Angle	: 33.6

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Drawing Title
139-141 HAWTHORN ROAD, CAULFIELD NORTH
VEHICLE SITE ACCESS - BASEMENT
SWEPT PATH ANALYSIS

Designed	Approved	Melway Ref
CM	JS	68 A1

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220906	SPA201	B

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