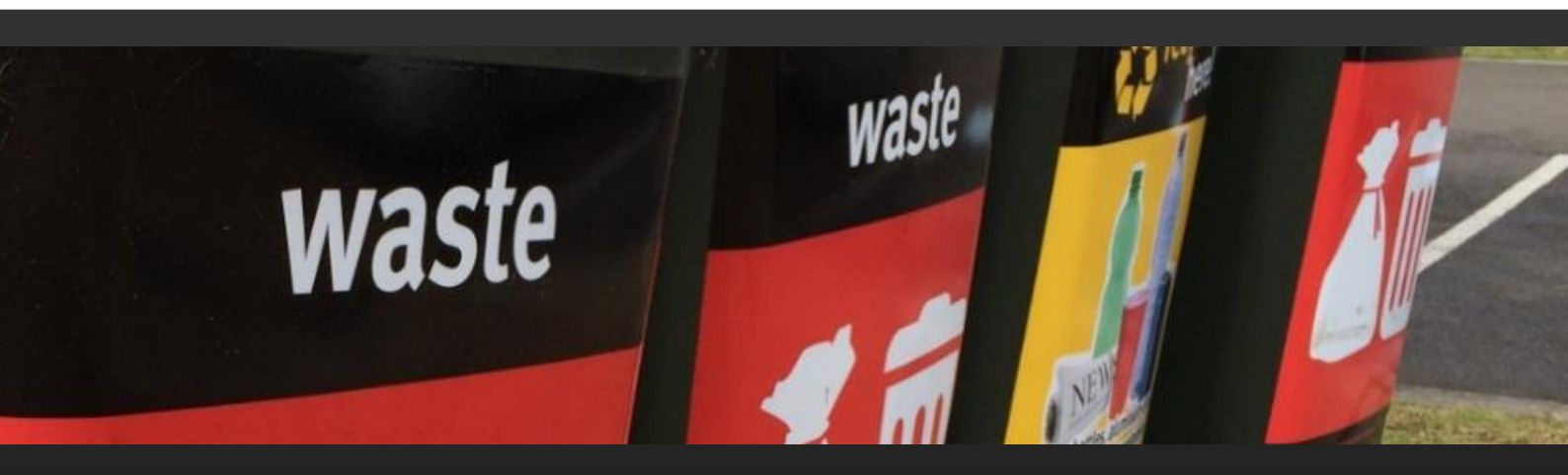


139-149 Boundary Road, North Melbourne

Waste Management Plan



190608WMP001F-F.docx

9 May 2023

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Prepared by	AWG	Reviewed by	JD

onemilegrid operates from Wurundjeri Woiworing Country of the Kulin nation. We acknowledge and extend our appreciation to the Wurundjeri People, the Traditional Owners of the land. We pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture, and the hopes of all Wurundjeri Peoples.

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1 INTRODUCTION

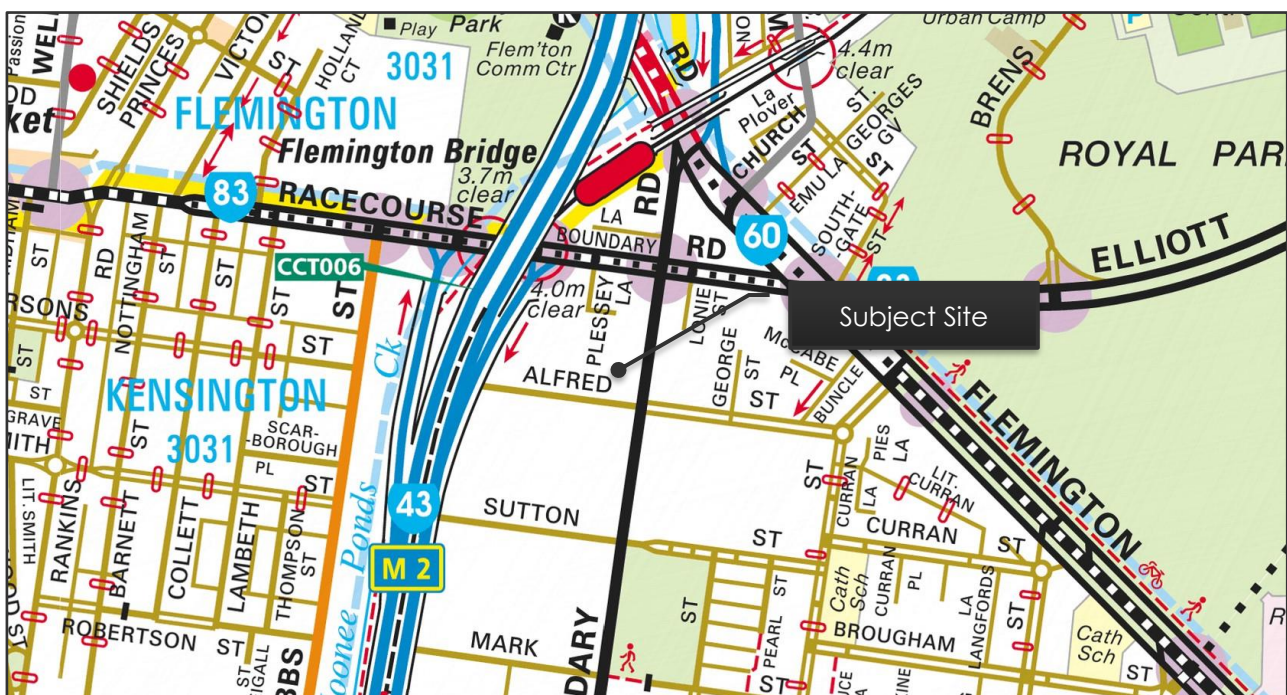
onemilegrid has been requested by BEG Developments Pty Ltd to prepare a Waste Management Plan for the proposed mixed-use development at 139-149 Boundary Road, North Melbourne.

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 Council guidelines.

2 EXISTING SITE CONDITIONS

The subject site is located at 139-149 Boundary Road, North Melbourne, as shown in Figure 1.

Figure 1 Site Location



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The site is generally rectangular in shape with a frontage of 56 metres and an average site depth of 80 metres. The south western corner of the site protrudes to the south, and is approximately 25 metres long and 11 metres wide resulting in a frontage to Alfred Street of 11 metres.

The site is currently vacant, though was most recently occupied by a HomyPed retail shopfront and warehouse at the rear. Access was historically provided from both Boundary Road and Alfred Street.

Land use in the immediate vicinity is mixed, including a range of residential and commercial uses. Additionally, the site is located within the strategically defined Arden-Macaulay Urban Renewal Precinct which guides the future use and development of the area.

3 DEVELOPMENT PROPOSAL

3.1 General

It is proposed to develop the site for the purposes of a mixed-use development, comprising apartments, townhouses, communal amenities and two retail tenancies at the Boundary Road frontage.

The development schedule for the proposed mixed-use development is shown below in Table 1.

Table 1 Proposed Development

<i>Use</i>	<i>Component</i>	<i>No./Area</i>
Dwellings	1-Bedroom Apartment	102
	2-Bedroom Apartment	169
	3-Bedroom Townhouse	5
	Total	276
Shop	Retail Tenancy 1	68m ²
	Retail Tenancy 2	67m ²
	Total	135m²
Café	Café Tenancy 1	99m ²
	Total	99m²

Communal amenities proposed include a gymnasium, wellness centre, private dining room, arcade games room and various communal open space areas. These will be accessible only to residents of the development, and are ancillary to the primary use.

3.2 Waste Management

It is proposed to utilise a private contractor to manage the collection and disposal of all waste streams associated with all components of the development including the residential, retail and café uses. It is acknowledged that it is preferred for residential waste collection to be undertaken by Council in the City of Melbourne, however the ramp has been redesigned with an apex to satisfy Melbourne Water requirements, which has reduced the available ramp length to provide sufficient clearance for a service vehicle.

All waste for the development is proposed to be disposed of via a dual chute system, separating general waste and recycling on each residential level at the time of disposal.

Two waste chutes will be provided adjacent to each of the stair cores leading to separate bin rooms in the basement car park. Empty bins will be rotated beneath the chutes by the building manager to ensure that they do not overflow.

It is proposed to facilitate bin collection within the loading area at the western end of the basement carpark. The building manager will be responsible for the transfer of bins from each of the bin rooms to the temporary storage location adjacent the loading area and returning them to the bin room immediately after collection.

The loading area can accommodate waste vehicles up to a 6.4 m rear-lift waste collection vehicle (mini-loader) with a maximum clear height of 2.5 m. Swept path diagrams demonstrating waste vehicle access are attached in Appendix A.

The expected transfer route for each of the bin rooms to the temporary storage location area is shown in Figure 2 and Figure 3 below.

Figure 2 Bin Storage and Transfer Routes – Basement 1

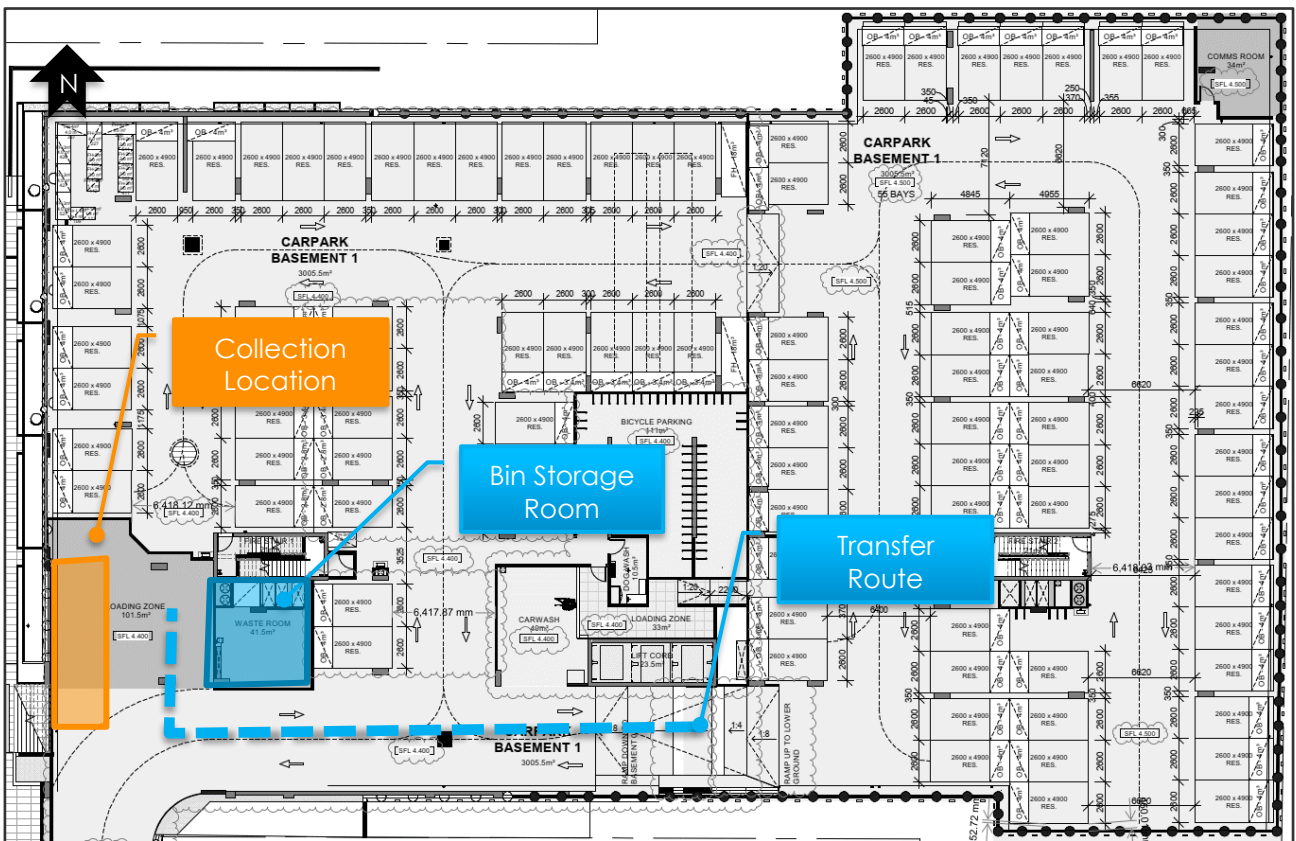
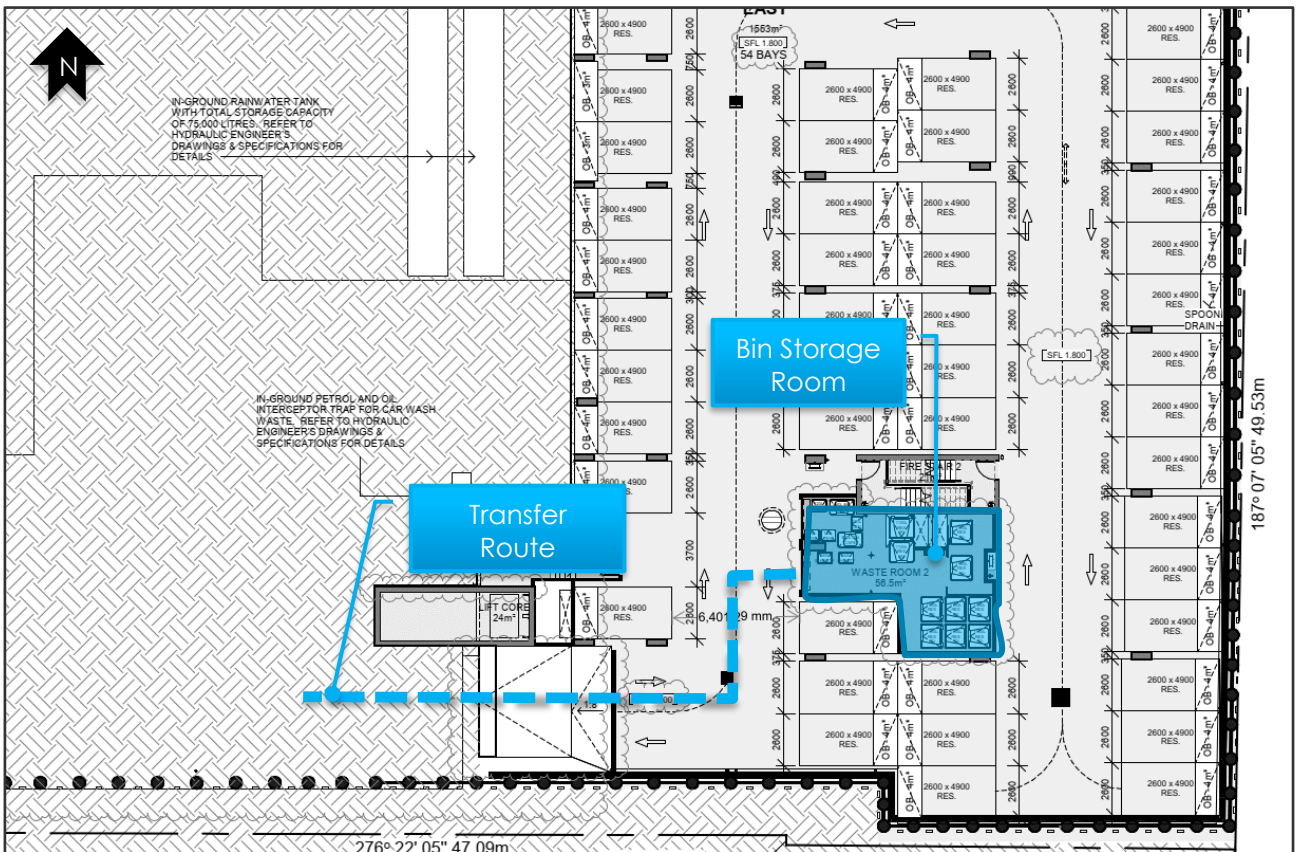


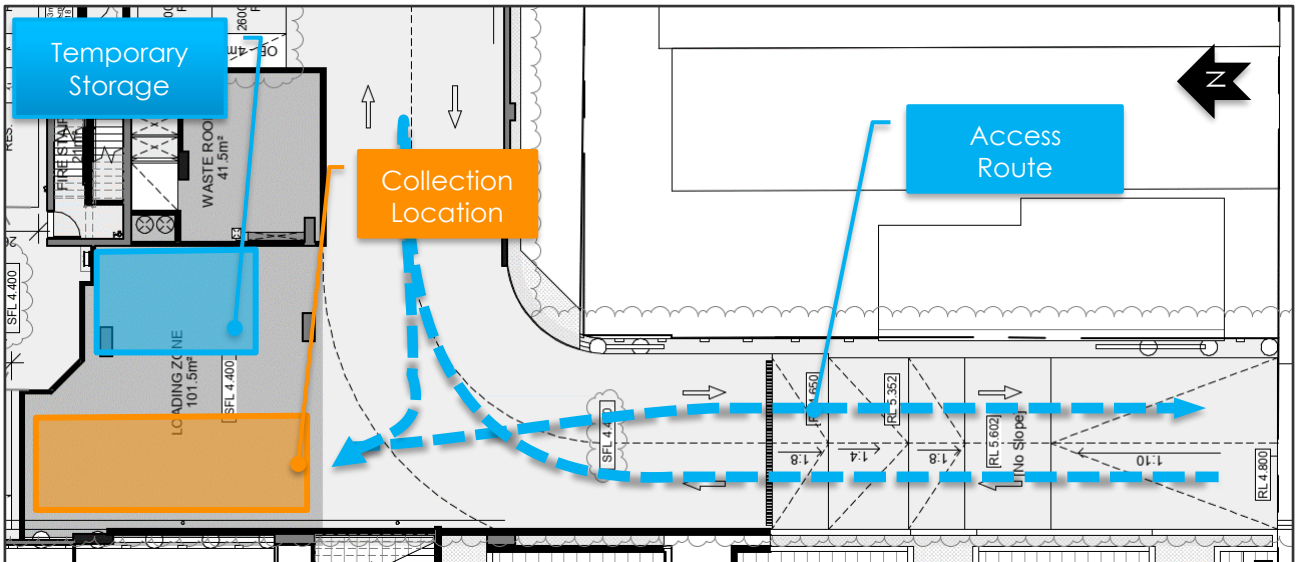
Figure 3 Bin Storage and Transfer Routes – Basement 2



For collection, the waste vehicle will enter the site via the Alfred Street basement ramp, turn right at the base of the ramp and then reverse into the waste collection area. The waste contractor will then empty each of the bins and return them to the temporary storage area. The waste vehicle will then exit the site in a forward direction using the same ramp it used to enter.

The travel path of the waste collection vehicle and collection location are shown in Figure 4 below.

Figure 4 Waste Vehicle Access Route and Collection Details



The proposed dwellings will include a dual bin system within each dwelling, to ensure garbage and recyclables are sorted at the time of disposal.

Residents will be responsible for disposing of recyclables or bagged garbage into the appropriate waste chutes located on each floor of the development. Bulky items will need to be disposed of directly into the bins.

Retail bins will be stored within the eastern bin room, physically separated by a partition wall or chain link fence. Bins will be transferred by staff to and from the loading bay for collection by a private contractor.

4 WASTE GENERATION

4.1 Adopted Council Rates

Garbage and recycling data have been sourced from the Guidelines for Preparing a Waste Management Plan prepared by Melbourne City Council. This document, developed to assist in the preparation of Waste Management Plans, outlines waste entitlements for residential developments within the municipality. The entitlements for each dwelling type within the development are detailed in Table 2.

Table 2 City of Melbourne Recommended Rates – Residential

Dwelling Size	Garbage	Recycling and Paper
Individual Dwelling	120L	120L or 240L
3-bedroom apartment or greater	120L	120L
2-bedroom apartment	100L	100L
1 bedroom or studio apartment	80L	80L

Furthermore, the guidelines recommend adoption of the following rates for non-residential uses.

Table 3 City of Melbourne Recommended Rates – Commercial (L/100m²/Day)

Use	Garbage Rate	Recycling Rate
Retail (non-food)	50L	50L
Café	300L	200L

4.2 Expected Waste Generation

4.2.1 Garbage and Recycling

It is proposed to provide garbage and recycling bins in accordance with Melbourne City Councils “Guidelines for Preparing a Waste Management Plan 2017” document.

Based on Council’s adopted waste generation rates, the weekly waste generation shown in Table 4, is expected for the residential component of the development.

Table 4 Expected Waste Generation – Residential

Stream	Component	No of Dwellings	Rate/Dwelling	Total Waste/Week
Garbage	1-Bedroom Apartment	102	80 litres	8,160 litres
	2-Bedroom Apartment	169	100 litres	16,900 litres
	3-Bedroom Townhouse	5	120 litres	600 litres
	Total			25,660 litres
Recycling	1-Bedroom Apartment	102	80 litres	8,160 litres
	2-Bedroom Apartment	169	100 litres	16,900 litres
	3-Bedroom Townhouse	5	120 litres	600 litres
	Total			25,660 litres

Based on the waste generation rates identified by Melbourne City Council, as indicated in Table 3 the following waste generation is expected by the commercial tenancies.

Table 5 Expected Waste Generation – Tenancy 1

Component – Stream	Floor Area	Rate/100 m²/Week	Total Waste/Week
Garbage	68m ²	350 litres	238 litres
Recycling	68m ²	350 litres	238 litres

Table 6 Expected Waste Generation – Tenancy 2

Component – Stream	Floor Area	Rate/100m²/Week	Total Waste/Week
Garbage	70m ²	350 litres	235 litres
Recycling	70m ²	350 litres	235 litres

Table 7 Expected Waste Generation – Café Tenancies

Component – Stream	Floor Area	Rate/100m²/Week	Total Waste/Week
Café – Garbage	99m ²	2,100 litres	2,079 litres
Café – Recycling	99m ²	1,400 litres	1,386 litres

4.2.2 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 for individual dwellings, and therefore a green waste collection service is not expected to be required.

However, the site features a number of common property areas and it is expected that any maintenance and gardening undertaken in these areas will be managed by a contractor appointed by the Owner's Corporation. The appointed contractor will be responsible for the disposal of any green waste accumulated during the course of their duties.

4.2.3 Hard Waste

Melbourne City Council offers hard waste collection for all residents. Hard waste from multi-unit developments is not permitted to be placed kerbside for collection and on-site storage must be provided in accordance with Council guidelines.

The Melbourne City Council Waste Guidelines specifies that developments with between 250 and 500 apartments may book up to two collections of 4 m³ per month. Bookings can be made directly with Melbourne City Council and it is recommended that the hard waste collection is managed by the building manager.

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

Each retail tenancy will be responsible for disposal of their own hard waste as Council does not provide collection services to commercial uses. Hard waste may be collected by a third party contractor or taken to Council's Recycling Centre/Transfer Station.

4.2.4 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. From the 1st July 2019, the disposal of E-waste to landfill has been banned by the Victorian Government.

City of Melbourne will provide buildings of 20 apartments or more an E-waste bin at no cost, to conveniently recycle electronic and electrical items, household batteries and power cords. Bins are available in 240 L and 660 L and come equipped with a sticker that shows the acceptable materials.

The service needs to be arranged by an authorised building representative (building manager, owners corporation manager or similar) and the bin needs to be kept undercover in a secure location.

The e-waste service is flexible and allows buildings to arrange a temporary bin as required or arrange a direct replacement bin when the original bin is full. Collection is to be organised by the building manager on an as needs basis.

Provision has been made for e-waste bins within each bin room.

4.2.5 Charity Bins

For a development of this size it is deemed practical to provide charity donation bins within the development. These bins allow residents to dispose of clothing that is no longer wanted but is otherwise in good condition.

A number of charities will provide a bin for donations and organise regular collection free of charge.

It is proposed to provide a 240-litre charity bin within each of the waste storage rooms for use by residents.

5 BIN REQUIREMENTS

5.1 Bin Provision and Specifications

5.1.1 Overall Development

It is proposed to utilise a private contractor to collect all waste streams (general waste, recycling, e-waste and hard waste) for the uses on-site. Based on the above expected waste generation, the following bins will be required for the proposed development.

Table 8 Bin Provision

<i>Stream</i>	<i>Waste/Week</i>	<i>Bin Size</i>	<i>Collection Frequency</i>	<i>Bins Required</i>
Garbage – Residential	25,660 litres	1,100 litres	3 x Weekly	8
Recycling – Residential	25,660 litres	1,100 litres	3 x Weekly	8
E-waste	-	240 litres	As required	2
Charity	-	240 litres	As required	2
Garbage – Retail Tenancy 1	238 litres	240 litres	Weekly	1
Recycling – Retail Tenancy 1	238 litres	240 litres	Weekly	1
Garbage – Retail Tenancy 2	235 litres	240 litres	Weekly	1
Recycling – Retail Tenancy 2	235 litres	240 litres	Weekly	1
Garbage – Café	2,079 litres	1,100 litres	2 x Weekly	1
Recycling - Cafe	1,386 litres	1,100 litres	2 x Weekly	1

Table 9 Bin Specifications

<i>Capacity</i>	<i>Width</i>	<i>Depth</i>	<i>Height</i>	<i>Area</i>
240 litres	0.60m	0.75m	1.10m	0.45m ²
1,100 litres	1.25m	1.10m	1.35m	1.38m ²

5.1.2 Residential Tower

Each above ground level of the building will accommodate two waste chutes, located adjacent to the stairs at the eastern and western ends of the building, emptying into bins within the basement level 1 storage room.

Based on the plans provided it is expected that approximately 60% of the residential waste will be generated to the eastern bin room and the remaining 40% to the western bin room. Based on this split the bins required for each bin room are detailed in Table 10.

Table 10 Waste Room Bin Provision

<i>Stream</i>	<i>Bins Size</i>	<i>Western Bin Room</i>	<i>Eastern Bin Room</i>
Garbage	1,100 litres	4 bins	5 bins
Recycling	1,100 litres	4 bins	5 bins
E-waste	240 litres	1 bin	1 bin
Charity Bin	240 litres	1 bin	1 bin
Total		10 bins	12 bins

The western bin room is also provided with 6m² designated for the storage of hard waste between Council collections.

5.1.3 Retail Tenancies

The retail tenancies and café will store their bins within the eastern bin storage room, separated from the residential bins by a partition wall or chain link fence.

Each tenancy is responsible for transferring their bins to the loading area for collection and returning them to the bin storage area.

5.2 Bin Storage

As indicated in Section 3.2, it is proposed to provide a bin storage room at the base of each stair core and a bin storage area at the base of the entrance ramp for the temporary storage of bins for collection.

The bins proposed to be stored within the eastern bin room have an area of approximately 19m². The eastern storage area has an area of approximately 57m² and is therefore appropriately sized to accommodate the required bins.

The hard waste storage and the bins proposed to be stored within the western bin room require an area of approximately 18m². The western storage area has an area of approximately 42m² and is therefore appropriately sized to accommodate the required bins.

An additional area of approximately 20m² has been provided adjacent the loading area for the temporary storage of bins from the eastern storage area awaiting collection.

Furthermore, the bin storage rooms are located appropriately for access by residents and tenants, and are secured from the common areas.

The bin storage rooms should be vermin proof, and have appropriate ventilation, lighting and drainage.

The bin storage rooms shall be ventilated, and shall be cleaned regularly by the operator or third party, to minimise odour.

5.3 Bin Collection

The waste collection vehicle will enter the basement via the Alfred Street ramp and reverse into the bin storage area.

Appropriate clearances have been provided to allow the waste truck to enter the basement. Once the waste truck has loaded/emptied the bins it will exit the site in a forward direction via the Alfred Street ramp.

5.4 Bin Cleaning

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

A bin cleaning area should be provided within each bin storage area, with a drain connected to sewer.

Commercial tenants are responsible for the maintenance and cleaning of their own bins.

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.

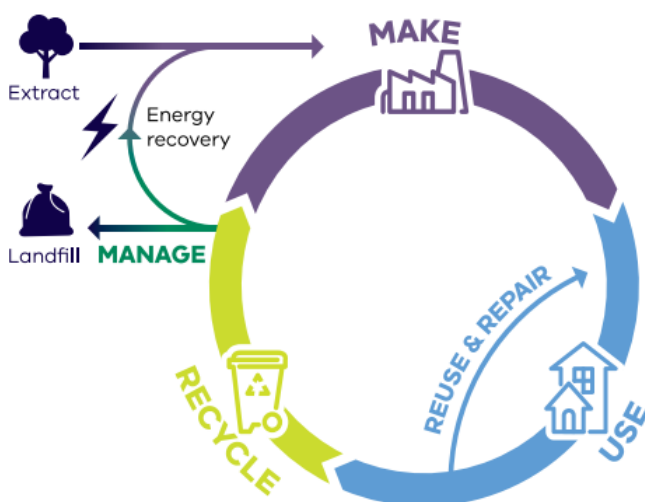
The benefits of reducing waste generation are far reaching and have been identified as significantly important by Council and the Victorian Government.

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 and staff 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 staff; 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, a dual bin system will be provided within each dwelling, providing separate bins for garbage and recycling.

6.2 Bin Usage

Residents will bag and dispose of garbage in the appropriate waste chute, located on each level of the development.

Residents will transport and dispose of recyclables (non-bagged) in the appropriate waste chute, located on each level of the development. Cardboard boxes should be flattened, and containers rinsed and cleaned prior to disposal in the provided bins.

Commercial tenants will dispose of recyclables and bagged garbage in their individual bins, stored within each tenancy. Cardboard boxes should be flattened, and containers rinsed and cleaned prior to disposal in the provided bins. Each tenancy is responsible for the transfer of their own bins to the collection area.

6.3 Common Property Litter and Waste Removal

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

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.

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 and waste chute doors) to reinforce the appropriate materials to be deposited in each bin. Example signage available from [Sustainability Victoria](#) is shown below.

Figure 6 Example Waste Signage



6.5 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 commercial 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.

6.6 Resident and Tenant Information

To ensure all residents and tenants are aware of their responsibilities with regard to waste and bin management, an information package should be provided 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; and
- Resident and tenant responsibilities with regard to bin usage, storage, and collection.

6.7 Municipal Charges

It is noted that every rateable tenement within the proposed development is liable for municipal waste charges, irrespective of the services provided by Council.

7 PLANNING SCHEME REQUIREMENTS

Clause 55.07-11 of the Melbourne Planning Scheme identifies the waste and recycling objectives for Apartment Developments, including:

- To ensure dwellings are designed to encourage waste recycling.
- To ensure that waste and recycling facilities are accessible, adequate and attractive.
- To ensure that waste and recycling facilities are designed and managed to minimise impacts on residential amenity, health and the public realm.

In particular, Standard B45 indicates that developments should include dedicated areas for:

- Waste and recycling enclosures which are:
 - ✦ Adequate in size, durable, waterproof and blend in with the development.
 - ✦ Adequately ventilated.
 - ✦ Located and designed for convenient access by residents and made easily accessible to people with limited mobility.
- Adequate facilities for bin washing. These areas should be adequately ventilated.
- Collection, separation and storage of waste and recyclables, including where appropriate opportunities for on-site management of food waste through composting or other waste recovery as appropriate.
- Collection, storage and reuse of garden waste, including opportunities for on-site treatment, where appropriate, or off-site removal for reprocessing.
- Adequate circulation to allow waste and recycling collection vehicles to enter and leave the site without reversing.
- Adequate internal storage space within each dwelling to enable the separation of waste, recyclables and food waste where appropriate.

Waste and recycling management facilities should be design and managed in accordance with a Waste Management Plan approved by the responsible authority and:

- Be designed to meet the best practice waste and recycling management guidelines for residential development adopted by Sustainability Victoria.
- Protect public health and amenity of residents and adjoining premises from the impacts of odour, noise and hazards associated with waste collection vehicle movements.

In relation to the above, the proposed development provides a centrally located garbage and recycling waste chute on each level of the development in addition to accessible bin storage rooms for the disposal of hard waste, E-waste and charity donations.

Each waste storage area is appropriately sized to accommodate the required waste bins, additional storage for hard waste and provision of bin washing facilities with a drain to sewer.

Furthermore, to maximise recycling at the time of disposal, a dual bin system will be installed within each townhouse and apartment, providing separate bins for garbage and recycling.

The development is considered to satisfy the objectives of Clause 55.07-11 of the Melbourne Planning Scheme.

8 OCCUPATIONAL HEALTH & SAFETY RESPONSIBILITIES

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

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

9 CONTACT INFORMATION

9.1 Council

Melbourne City Council

Phone: (03) 9658 9658 (Customer Service)

Web: www.melbourne.vic.gov.au

9.2 Contractors

WM Waste Management

Services: Private contractor

Phone: (03) 9721 1900

Web: www.wmwaste.com.au/

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

9.3 Equipment

ASI JD MacDonald

Services: Waste collection and management equipment
Phone: 1800 023 441
Web: www.jdmacdonald.com.au/
Email: enquiry@asjidmacdonald.com.au

Eco-Safe Technologies (odour control equipment)

Phone: 0411 335 753
Web: www.eco-safe.com.au
Email: info@eco-safe.com.au

Electrodrive (bin tug systems)

Phone: 1800 333 002
Web: www.electrodrive.com.au
Email: vic@electrodrive.com.au

Wastech (chute systems)

Phone: 1800 465 465
Web: www.wastech.com.au
Email: info@wastech.com.au

9.4 Others

Sustainability Victoria

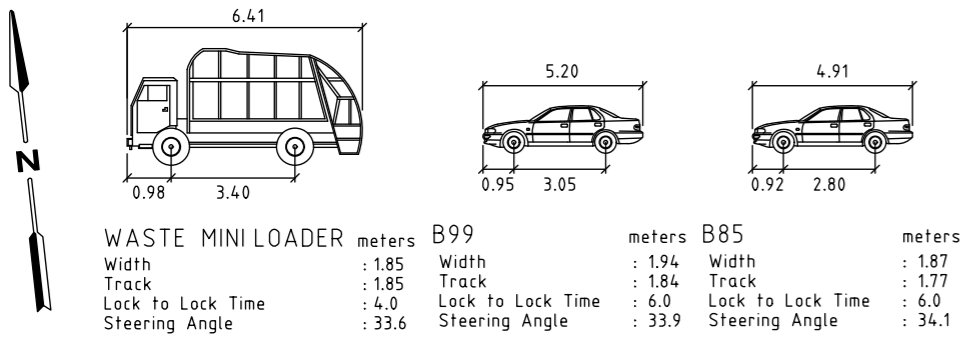
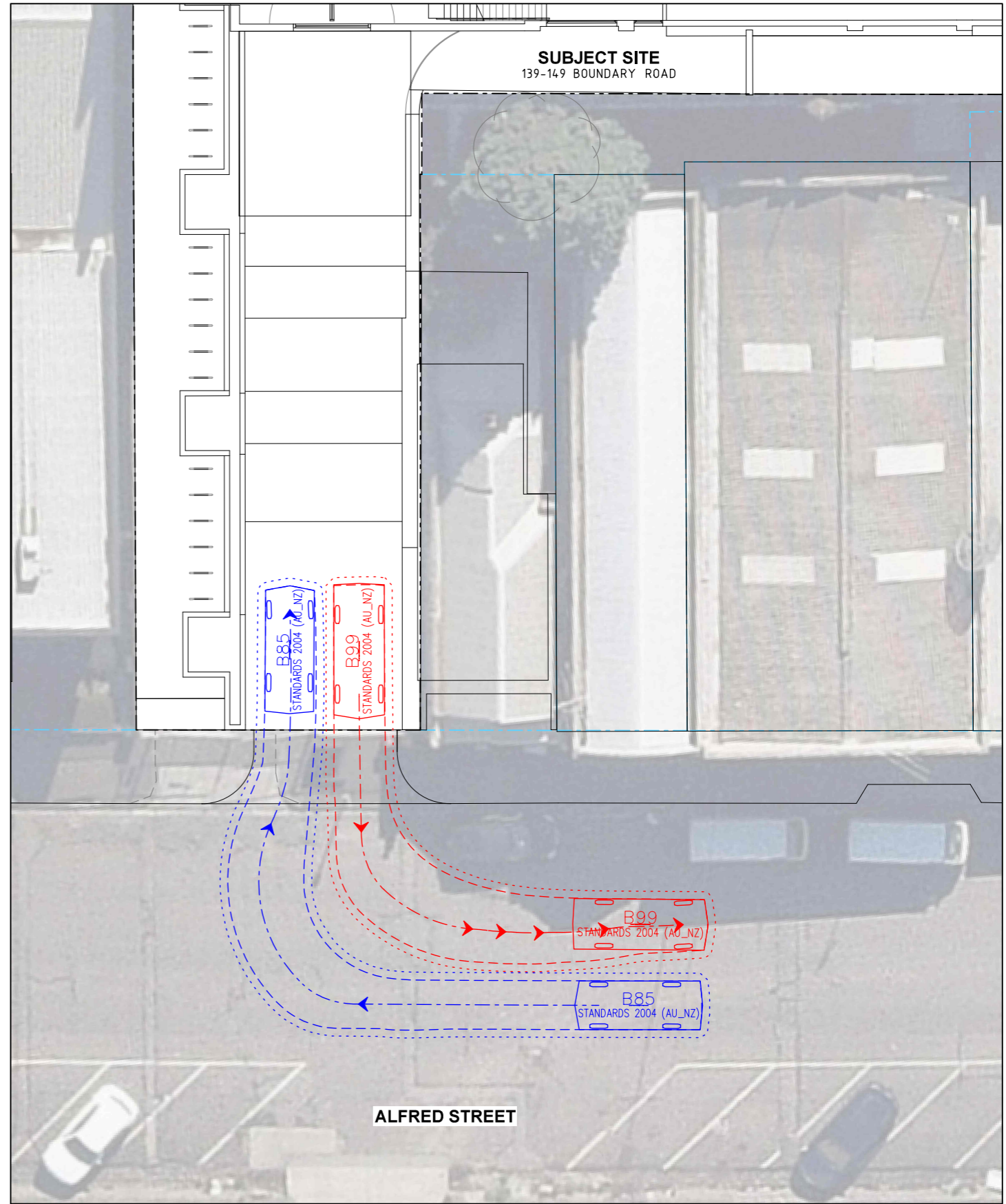
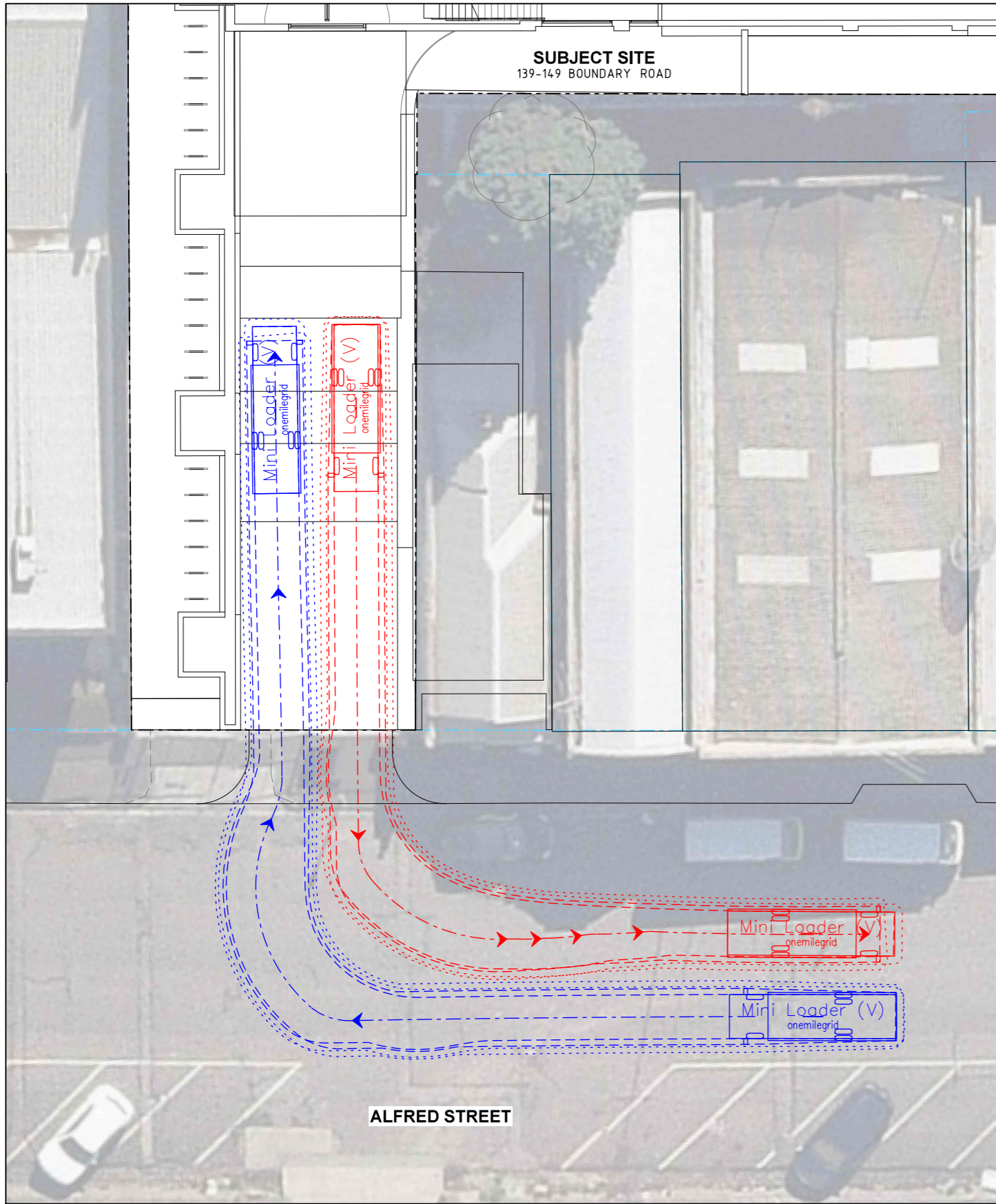
Services: Sustainable Waste Management initiatives and information
Phone: 1300 363 744 (Energy, Waste and Recycling)
Web: www.sustainability.vic.gov.au
Email: info@sustainability.vic.gov.au

Appendix A Swept Path Diagrams



CAD File: N:\Projects\2019\190608\Drawings\190608SPA100.dgn

Date Plotted: 09-05-2023 14:52:59



SWEPT PATH LEGEND
 - - - - - DESIGN VEHICLE SWEEP PATHS SHOWN DASHED
 ······ 300mm CLEARANCE ENVELOPE SHOWN DOTTED

Wurundjeri Woiwurog Country
 56 Down Street, Collingwood, VIC 3066
 Email: info@onemilegrid.com.au Web: www.onemilegrid.com.au
 Phone: (03) 9939 8250

Scale: 1:200 @ A3

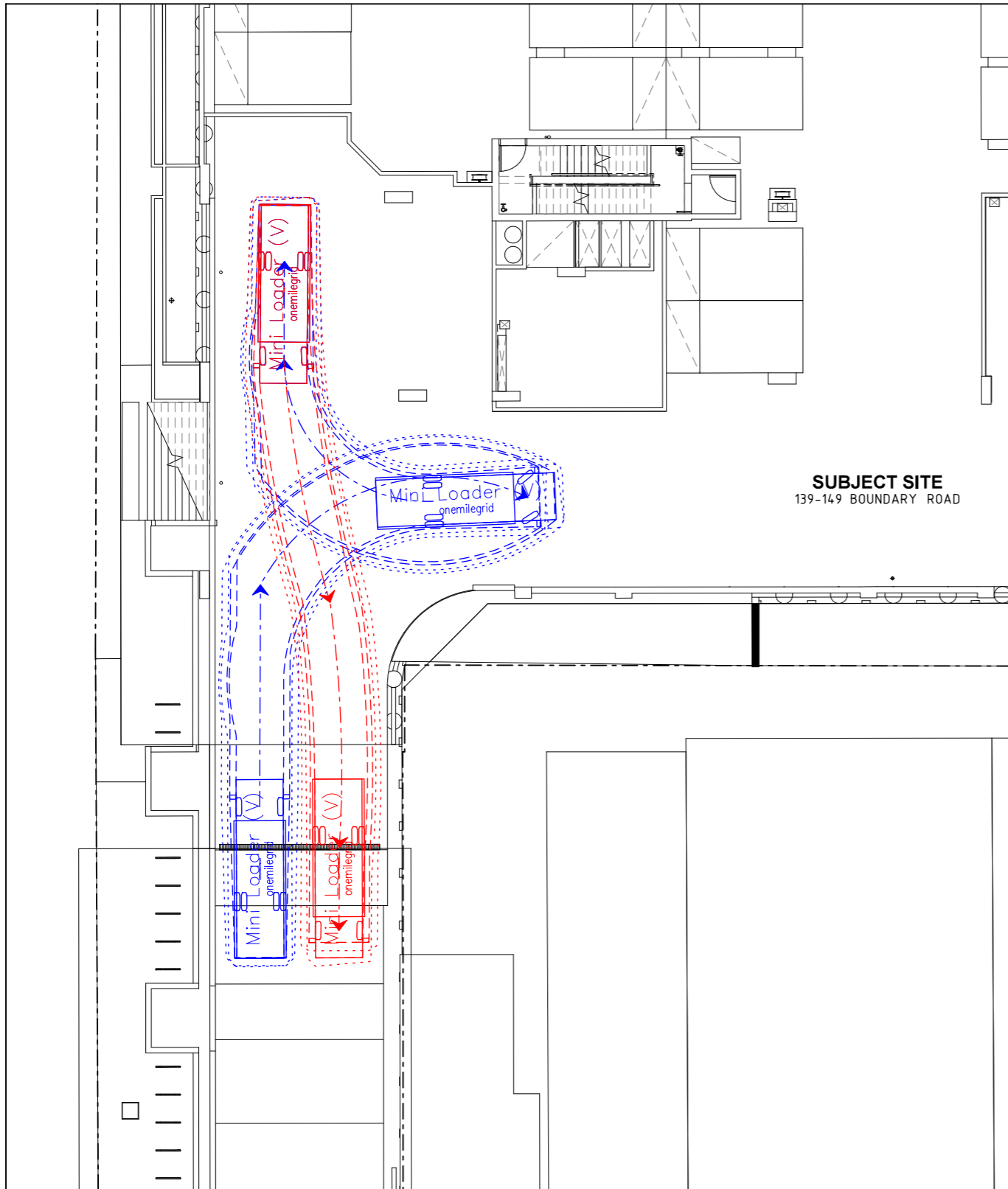
Drawing Title 139-149 BOUNDARY RD, NORTH MELBOURNE GROUND LEVEL - VEHICLE SITE ACCESS SWEPT PATH ANALYSIS		
Designed RG	Approved JD	Metway Ref 43 B11
Project Number 190608	Drawing Number SPA100	Revision F

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 We acknowledge and extend our appreciation to the Wurundjeri People, the Traditional Owners of the land.
 We pay our respects to leaders and Elders past, present and emerging for they hold the memories,
 the traditions, the culture, and the hopes of all Wurundjeri Peoples.

CAD File: N:\Projects\2019\190608\Drawings\190608SPA101.dgn

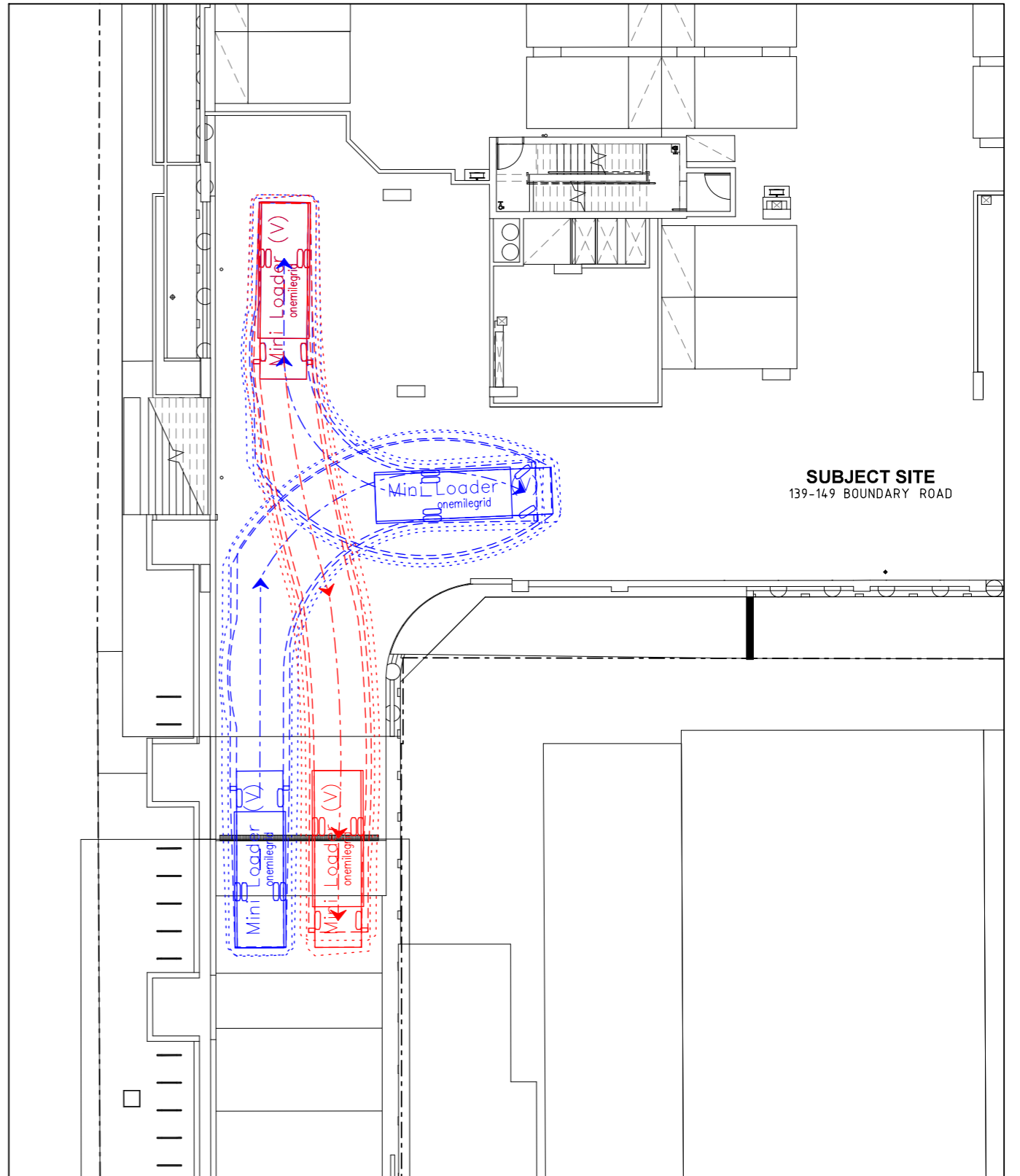
Date Plotted: 09-05-2023 14:53:40



SUBJECT SITE
139-149 BOUNDARY ROAD

ENTRY MANOEUVRES

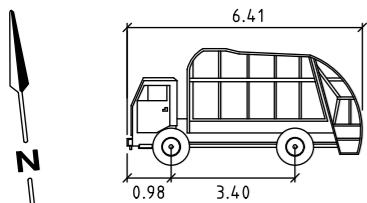
----- DESIGN VEHICLE SWEEP PATHS SHOWN DASHED
..... 300mm CLEARANCE ENVELOPE SHOWN DOTTED



SUBJECT SITE
139-149 BOUNDARY ROAD

EXIT MANOEUVRES

----- DESIGN VEHICLE SWEEP PATHS SHOWN DASHED
..... 300mm CLEARANCE ENVELOPE SHOWN DOTTED



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

Drawing Title		
139-149 BOUNDARY RD, NORTH MELBOURNE WASTE VEHICLE BASEMENT ACCESS SWEEP PATH ANALYSIS		
Designed	Approved	Metway Ref
RG	JD	43 B11
Project Number	Drawing Number	Revision
190608	SPA101	F