Date 8 May 2023 Planning

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Urban Des

# Waste Mai

## Waste Management Plan

## 158-162a High Street, Belmont



#### Project 158-162a High Street, Belmont

Prepared for Coles Property Group

Our reference 19490W REP01F01

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Version	Date	Issue	Prepared by	Checked by
REP01D01	14/04/2023	Town Planning - Draft	M Fairlie	M Fairlie
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#### **Acknowledgement of Country**

We acknowledge the Traditional Owners of the land we work, live and travel on, and appreciate the rich cultures of the Aboriginal and Torres Strait Islander Peoples and their enduring connection to country.



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Appendix A - Waste Collection Vehicle Swept Path Assessment

Appendix B - Stationary Auger Compactor Specifications

### 1. Introduction

#### 1.1. Introduction

It is proposed to redevelop the land located at 158-162a High Street in Belmont for the construction of a new full-line Coles Supermarket, Liquorland, Click and Collect, and associated on-grade and basement car parking.

Ratio Consultants was commissioned by the Applicant to prepare a Waste Management Plan to accompany the Town Planning Application for the proposed development.

Refer to the Architectural Plans submitted with the application for a copy of the floor plans reviewed as part of this assessment.

#### 1.2. Site Location

The subject site is located on the northwest side of High Street and southeast side of Church Street in Belmont.

An aerial view of the subject site is provided in Figure 1.1 below.

Figure 1.1: Aerial View of Site



Source: www.nearmap.com.au

#### 1.3. Development Summary

The proposed development summary is outlined in Table 1.1 below.

**Table 1.1: Development Summary** 

Waste Source	Floor Area (m²)
Coles Supermarket (Ground Floor)	3,480
Coles Supermarket (Mezzanine)	155
Liquorland	206
Total	3,841

#### 1.4. Waste Management Plan Limitations

Waste management arrangements during the construction and fit-out stages of the development, and on-going operation and monitoring of the waste management arrangements for the development following the occupation of the development are outside the scope of this Waste Management Plan.

#### 1.5. Relevant Policies and Guidelines

Relevant policies and guidelines considered as part of the preparation of this Waste Management Plan include:

- Australian Government National Waste Policy: Less Waste, More Resources (2018).
- Victorian Government Recycling Victoria: A New Economy (2020).
- Sustainability Victoria Better Practice Guide for Waste Management and Recycling in Multi-Unit Developments (2018).
- EPA Victoria Noise Control Guidelines (2021).

## 2. Waste Volume Assessment Details

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#### 2.1. Waste Volume Assessment

The following waste generation rates have been identified based on waste volumes observed at similar Coles Supermarkets in Victoria:

- General Waste: 400 L/100m2/week
- Organics: 200 L/100m2/week
- Cardboard: 600 L/100m2/week
- Soft Plastics: 15 kg/100m2/week

Applying the above waste generation rates, the waste generation estimates for the supermarket are outlined in Tables 2.1, 2.2, 2.3, and 2.4 below.

**Table 2.1: General Waste Volume Assessment** 

Waste Source	Floor Area (m²)	General Waste Generation Rate	General Waste Volume
Coles Supermarket + Liquorland	3,841	400 L/100m <sup>2</sup> /week	15,364 L/week

#### **Table 2.2: Organics Volume Assessment**

Waste Source	Floor Area (m²)	Organics Generation Rate	Organics Volume
Coles Supermarket + Liquorland	3,841	200 L/100m²/week	7,682 L/week

#### Table 2.3: Cardboard Volume Assessment

Waste Source	Floor Area (m²)	Cardboard Generation Rate	Cardboard Volume
Coles Supermarket + Liquorland	3,841	600 L/100m²/week	23,046 L/week

Table 2.4: Soft Plastics Volume Assessment

Waste Source Floor Area (m²)		Soft Plastics Generation Rate	Soft Plastics Volume
Coles Supermarket + Liquorland	3,841	15 kg/100m²/week	576 kg/week

## Waste System and Storage Details

#### 3.1. Proposed Waste System

The proposed waste system for the development is summarised as follows:

- Staff and back of house areas shall be furnished with receptacles for the temporary storage
  of each waste stream.
- A dedicated waste storage area shall be provided at the loading dock containing collection bins for general waste and organics.
- A stationary auger compactor with associated bin shall be provided at the loading dock for cardboard.
- A white recycle plastic bags cage shall be provided at the loading dock for pallet wrap (chute-fed).
- A red recycle plastic bags cage shall be provided adjacent to the white recycling plastics bags cage for post-consumer soft plastics recycling (chute-fed).
- The REDcycle program shall be available in-store for post-consumer soft plastics recycling.
- Unsold, edible food from the supermarket shall be donated to SecondBite, farmers and animal sanctuary organisations.
- Appointed personnel shall be responsible for emptying full general waste and organics into the collection bins provided within the waste storage area, as required.
- Appointed personnel shall be responsible for placing cardboard into the stationary auger compactor.
- Appointed personnel shall be responsible for placing soft plastics into the baler for baling.

#### 3.2. Waste Storage Requirements

The waste storage requirements for the development are outlined in Table 3.1 below.

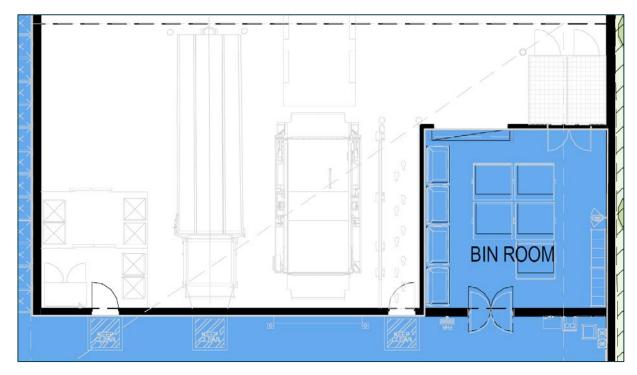
**Table 3.1: Waste Storage Requirements** 

Storage Location	ltem	Quantity	Footprint Required (m²)
	1100L Rear-Lift General Waste Bin	5	6.65
	660L Rear-Lift Organics Bin	4	3.92
Loading Dock	Stationary Auger Compactor with 38.0m <sup>3</sup> Hook-Lift Bin	1	29.12
	Plastic Bags Cage	2	6.48
Total Footp	Total Footprint Required <u>Excluding</u> Circulation (m <sup>2</sup> ): 46.17		

#### 3.3. Proposed Waste Storage Layout

The proposed waste storage layout for the waste storage area is shown in Figure 3.1 below.

Figure 3.1: Proposed Waste Storage Layout



### 4. Waste Collection Details

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#### 4.1. Waste Collection Requirements

The waste collection requirements for the development are outlined in Table 4.1 below.

**Table 4.1: Waste Collection Requirements** 

Waste Stream	Volume	ltem	Quantity	Collection Frequency	Capacity
General Waste	15,364 L/week	1100L Rear-Lift General Waste Bin	5	Up to three collections per week	Up to 16,500 L/week
Organics	7,682 L/week	660L Rear-Lift Organics Bin	4	Up to three collections per week	Up to 7,920 L/week
Cardboard	23,046 L/week	38.0m³ Hook- Lift Bin	1	Up to three collections per week	Up to 114,000 L/week
Soft Plastics	576 kg/week	5kg White and Red Recycle Plastic Bags	As required	Up to three collections per week	As required

<u>Note:</u> should the above weekly capacities be insufficient to accommodate the actual waste volumes generated by the development once operational, the collection frequencies may be increased or more bins may be provided.

#### 4.2. Waste Collection Methodology

The waste collection activities for the development are proposed to occur from the loading dock located at the northern corner of the site.

It is anticipated that waste collection activities are to be undertaken utilising a combination of 9.8-metre-long hook-loading vehicles (for the hook-lift bin) and 10.2-metre-long rear-loading vehicles (for the rear-lift bins). No headroom clearance issues have been identified at the proposed waste collection point.

The loading dock has been designed to accommodate vehicles of a size up to and including 12.5-metre-long Heavy Rigid Vehicle (HRV). A swept path assessment has been completed which confirms that a HRV can adequately undertake the following waste collection procedure via the loading dock:

- Enter the loading dock in a forward direction via Church Street.
- Undertake waste collection.
- Exit the site in a forward direction using the turntable provided.

The swept path assessment also demonstrates that a truck can reverse into position in front of the hook-lift bin and then exit the site in a forward direction. Refer to Appendix A for the results of the swept path assessment.

The waste collection contractor shall be responsible for transferring the collection bins between the waste storage area / stationary compactor and the collection vehicle and returning the collection bins to their original positions immediately after collections are complete. Bins shall not be stored outside of the property boundary at any time.

#### 4.3. Waste Collection Time

Waste collection shall be undertaken during the following time-period, in accordance with EPA Victoria's 'Noise Control Guidelines':

- Between 7:00am and 8:00pm Monday to Saturday; and
- Between 9:00am and 8:00pm Sunday and public holidays.

<u>Note:</u> compaction should be carried out while the vehicle is moving, bottles should not be broken up at point site, and noisy verbal communication between operators should be avoided where possible.

## 5. Waste Management Responsibilities

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#### 5.1. Waste Sorting Responsibilities

All waste system users shall be responsible for adhering to the following waste sorting practices:

- General waste shall be placed within tied bags prior to being placed into the general waste collection bin located within the waste storage area.
- Organics shall be placed loosely into the organics collection bin located within the waste storage area. Bagged organics is not permitted unless the bags are made from an approved compostable material.
- Recyclable containers (glass, aluminium, steel, and plastic recycles) shall be uncapped and rinsed prior to being placed loosely into the recycling collection bins located within the waste storage area. Bagged recycling is not permitted.
- Cardboard shall be placed loosely into the cardboard stationary auger compactor located at the loading dock. Bagged cardboard is not permitted.

#### 5.2. Operator Responsibilities

The Operator shall be responsible for the following:

- Ongoing management of the waste system including the maintenance of the waste storage area and associated equipment and components, to the satisfaction of all waste system users and the relevant authority, and in accordance with the manufacturer's specifications.
- Engaging and managing the private waste collection contractor.
- Ensuring the waste collection contractor has access to the waste storage area during the scheduled waste collection time.
- Ensuring only trained personnel operate the stationary auger cardboard compactor.
- Publishing and distributing information to ensure that all waste system users are familiar about the waste system.
- Informing all waste system users that bagged recycling is not permitted.
- Developing and implementing adequate safe operating procedures (including the preparation of Safe Work Method Statements).
- Labelling/numbering the bins according to the property address to protect them from theft and vandalism.
- Servicing all public areas through sweeping and removal of litter on a regular basis.
- Preventing overfilled bins by keeping lids closed.
- Ensuring that bins are not removed from the site.



 Ensuring that the waste storage area and associated equipment and components are provided as per the design requirements outlined in Section 6.

#### 5.3. Waste System Education

The Operator shall ensure that all waste systems users are informed about the development's waste system, including where and how to correctly dispose of each waste stream. It is recommended that this Waste Management Plan is electronically provided to all relevant personnel.

The Operator shall provide educational material to inform all waste system users about the development's waste system and advise all waste system users how to correctly separate and dispose of each waste stream with care, to minimise waste sent to landfill and reduce the contamination of recyclables.

#### 5.4. Waste Management Plan Revisions

From time to time, due to changes in legislative requirements, changes in the development's needs and/or waste patterns (such as waste composition, volume, or distribution), or to address unforeseen operational issues, the Operator shall be responsible for co-ordinating the necessary Waste Management Plan revisions, including (on an as-required basis):

- A waste audit and new waste management strategy.
- Revision of the waste system (bin size / quantity / waste streams / collection frequency / update of equipment).
- Re-education of users.
- Any necessary statutory / regulatory requirements / approvals.

## 6. Design Requirements

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#### 6.1. Waste Storage Area Design Requirements

All waste storage areas shall be designed to meet the following requirements:

- Designed to comply with Building Code of Australia (BCA) and all relevant Australian Standards.
- Secure and screened from public view.
- Allow storage of all collection bins on site at all times.
- Allow easy access to bins for all waste system users.
- Allow direct and convenient transfer of bins to/from the collection point.
- Bins and equipment labelled as per the property address.
- Appropriately screened to prevent unsightly impacts on amenity.
- Provided with artificial light to enable waste storage area users to dispose of waste safely and appropriately.
- Sized to accommodate all waste arising on the premises together with any associated waste management equipment.
- Concrete (or similar) floor finished to a smooth, even surface, covered at the intersection of walls and plinths.
- Ventilated in accordance with the requirements of the Building Code of Australia and AS1668.2.
- Ventilation openings protected against flies and vermin.
- Provided with tight-fitting doors.
- Provided with adequate bin washing facilities (wall-mounted hot and cold mixing tap with floor graded to wastewater drain connected to litter trap) in accordance with the relevant authority requirements.

#### 6.2. Stationary Auger Compactor Requirements

The Stationary Auger Compactor shall be provided in accordance with the manufacturer's specifications. Refer to Appendix B for specifications of the proposed stationary auger compactor.



#### 6.3. Bin Colour and Signage Requirements

#### **Bin Colour Requirements**

All bins shall be provided by a private supplier. The below bin colours are specified by Australian Standard AS4123.7 2006, however due to the private nature of the collection, these are only recommendations and are not mandatory:

- General waste bins with a dark green or black body and red lid.
- Organics bins with a dark green or black body and lime green lid.
- Recycling bins with a dark green or black body and yellow lid.
- Cardboard recycling bins with a dark green or black body and blue lid.

#### Signage Requirements

All waste storage areas shall be provided with Sustainability Victoria or equivalent signage (visit: <a href="https://www.sustainability.vic.gov.au/recycling-and-reducing-waste/waste-systems-in-residential-commercial-and-industrial-buildings/waste-signage">https://www.sustainability.vic.gov.au/recycling-and-reducing-waste/waste-systems-in-residential-commercial-and-industrial-buildings/waste-signage</a>).

### 7. Contact Details

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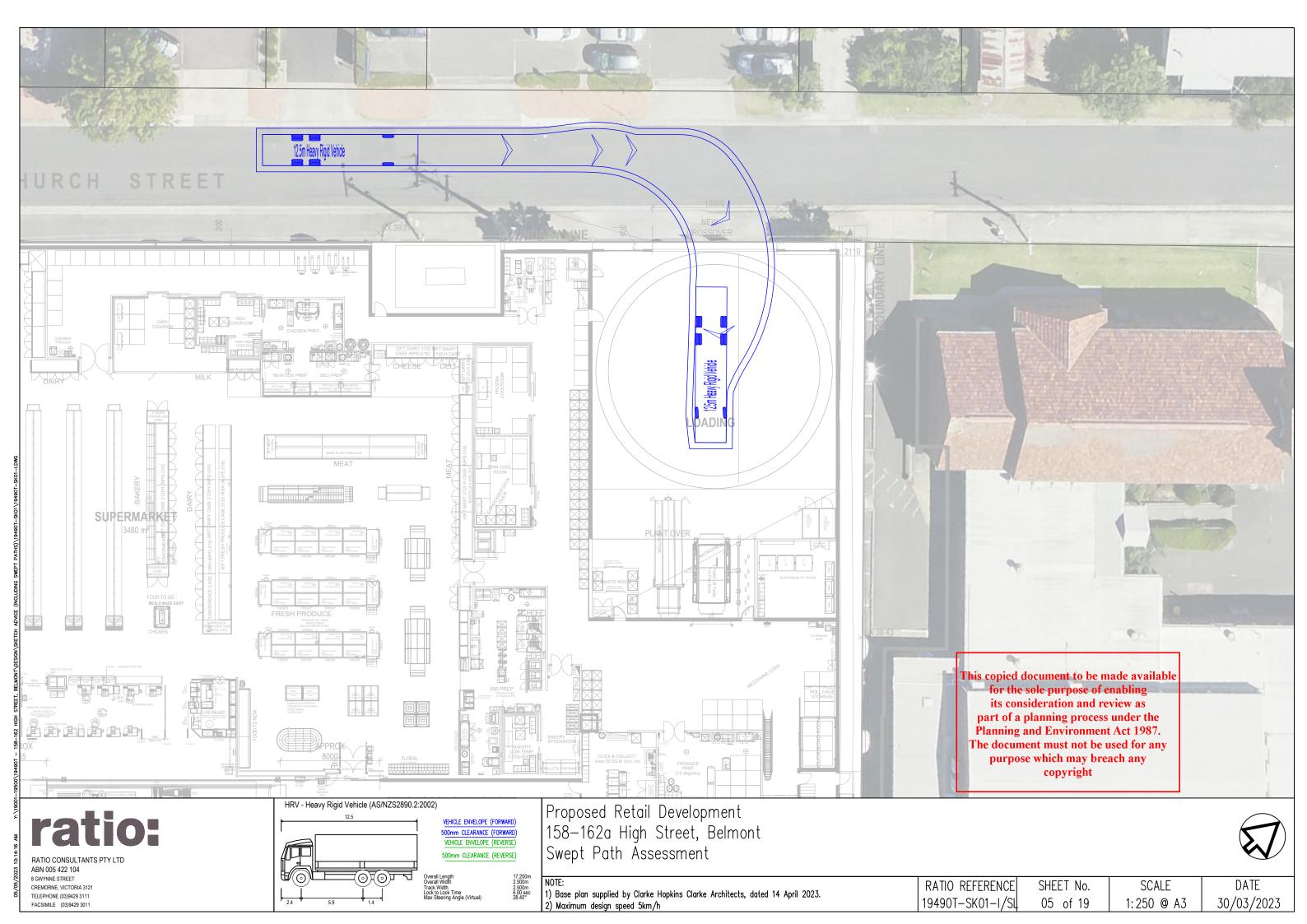
#### 7.1. Contractor and Supplier Details

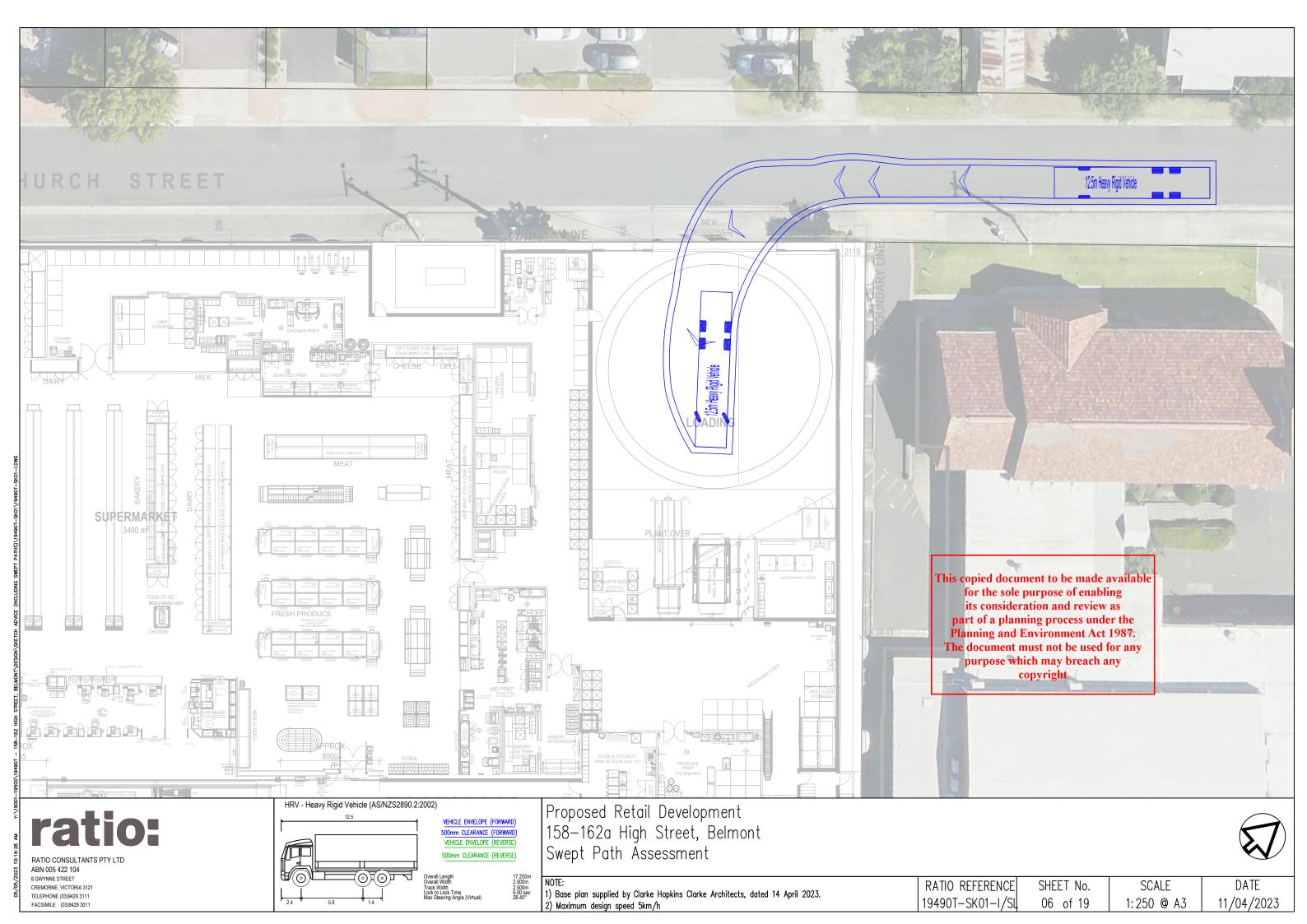
Table 7.1 below includes a complimentary listing of contractors and suppliers. The Project Principal shall not be obligated to procure goods / services from these companies. Ratio Consultants does not warrant or make representations for the goods / services provided by these contractors and suppliers.

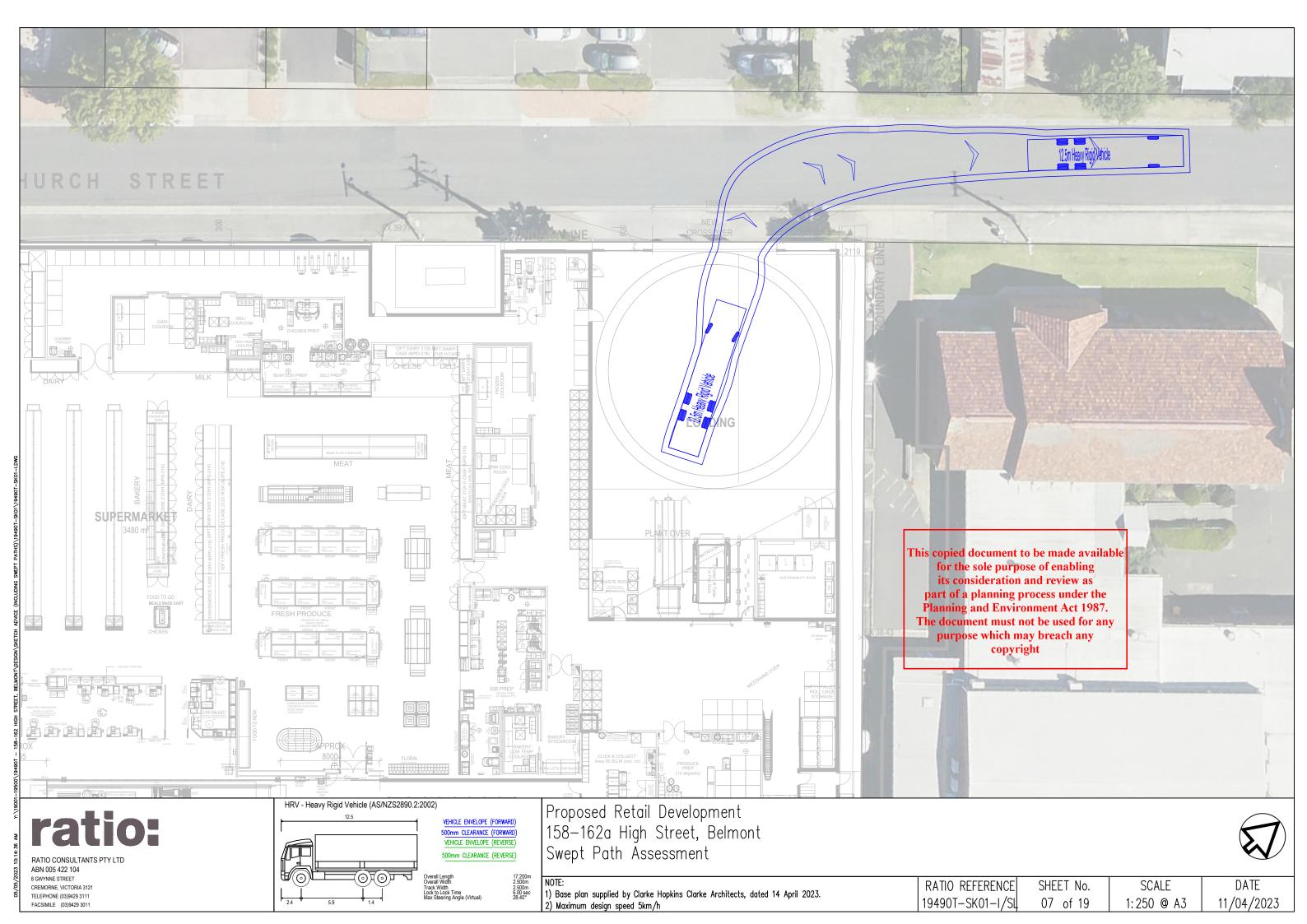
Table 7.1: Contractor and Supplier Details

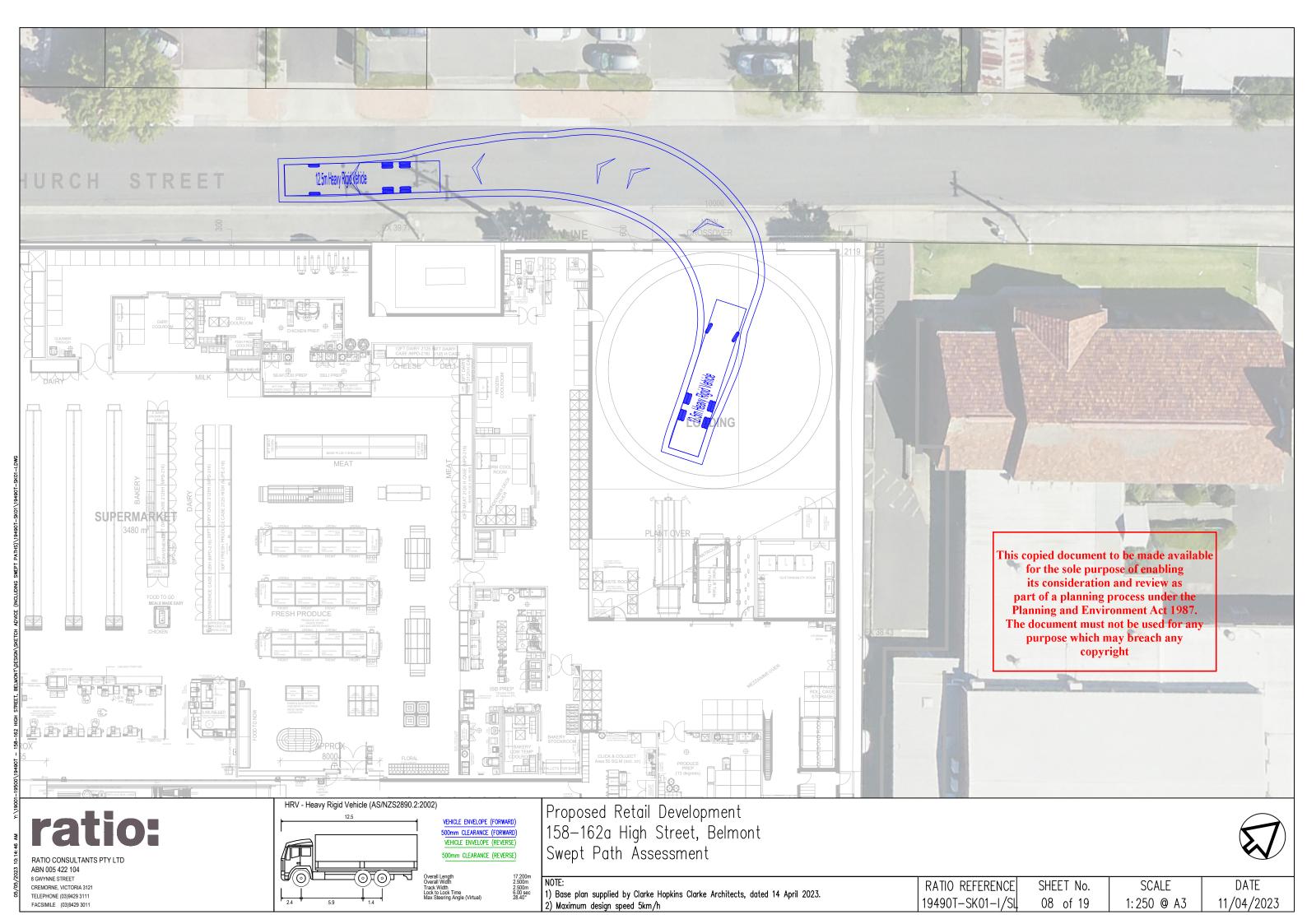
Service	Service Provider / Supplier	Phone	Website
Private Waste Collection Service	Cleanaway	13 13 39	www.cleanaway.com.au
Provider	JJ Richards	03 9794 5722	www.jjrichards.com.au
	Veolia	132 955	www.veolia.com.au
Stationary Auger Compactor Supplier	Wastech	1800 465 465	www.wastech.com.au
	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
Pin Clasning	Calcorp Services	1800 225 267	www.calcorpservices.com.au
Bin Cleaning Service Provider	Kerbside Clean-A-Bin	03 9830 7381	www.kerbsidecleanabin-srp.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au

## Appendix A - Waste Collection Vehicle Swept Path Assessment





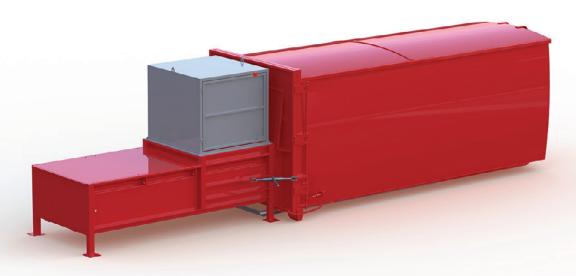




# Appendix B - Stationary Auger Compactor Specifications

## S1500 BLADE COMPACTOR





#### MEDIUM TO LARGE VOLUMES

The S1500 Stationary Compactor provides compaction and containment of medium to large volumes of general waste, paper, cardboard and other recyclables.

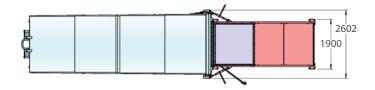
#### SUPERIOR COMPACTION FORCES

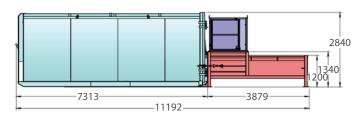
The S1500 can be designed for hand, bin lifter, tippler bin and chute loading. When full, the body or container is easily removed for emptying. The superior compaction forces provide high payloads to reduce your carbon footprint and your transport costs.

TECHNICAL SPECIFICATIONS	
Chamber Volume	1.8 m³
Swept Volume	1.4 m <sup>3</sup>
Machine Capacity	110 m³/hr
Clear Top Opening (W x L)	1500 x 1340 mm
Hydraulic Cylinder Stroke	1700 mm
Hydraulic Cylinder Size	130 Bore, 90 Rod (mm)
Container Penetration	350 mm
Pack Black Face Size (W x H)	1500 x 560 mm
Discharge Opening	1500 x 760 mm
Electric Motor Size	7.5 kW
Cycle Time (unloaded)	47 s
Hydraulic Pump Flow	27 L/min
Maximum Compaction Force	225 kN
Power Required	415V 20A



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Standard 31m<sup>3</sup> bin layout.