



# Leigh Design

waste management plans for all urban developments

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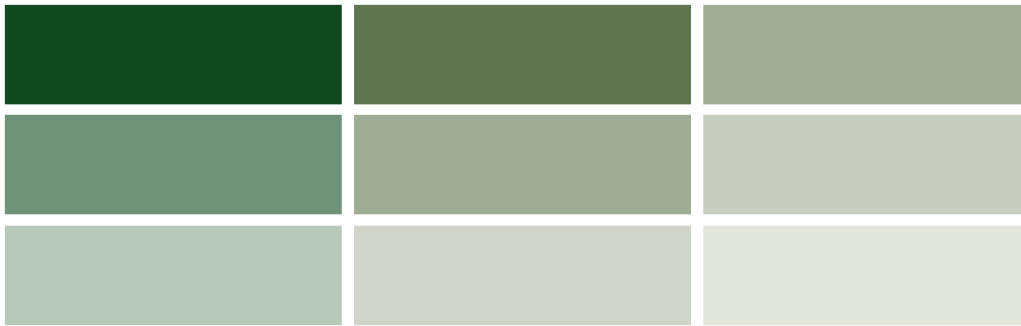
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# Waste Management Plan



## Proposed Development:

**17 Grosvenor Street & 1A-F Woodstock Street, Balaclava,  
Victoria**

## Prepared for:

**H2o Architects Pty Ltd**

## Document Control

Report Date: 08 February 2024 (supersedes all prior reports)

Prepared By: Andrew McIntosh, Associate

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### WASTE MANAGEMENT SUMMARY

- The Operator, as defined below, shall be responsible for managing the waste system, and for developing and implementing safe operating procedures.
- Waste shall be stored within the development (hidden from external view).
- Users shall place sorted waste into shared collection bins.
- Waste shall be collected on Grosvenor Street and Brunning Street. The collection contractor shall transfer bins between the waste areas and the truck.
- A private contractor shall provide waste collection services.

### GLOSSARY

**Operator:** refers to the Owners Corporation, who shall manage site operations (via staff and contractors, if required).

**User:** refers to residents, who shall utilise the waste system.

## **1 SPACE AND SYSTEM FOR WASTE MANAGEMENT**

### **1.1 Development Description and Use**

This 3-storey and Basement development shall consist of residential apartments (refer to Table 1).

### **1.2 Estimated Waste Generation**

The following table summarises the waste estimate (m<sup>3</sup>/week):

Table 1: Waste Estimate

<b>Waste Source</b>	<b>Base Qty (est.)</b>	<b>Garbage</b>	<b>Commingled Recycling</b>
Apartments (1 bed)	No. of units = 44	3.52	3.52
Apartments (2 bed)	No. of units = 21	2.10	2.10
Apartments (3 bed)	No. of units = 3	0.36	0.36
<b>TOTAL (m<sup>3</sup>/wk)</b>		<b>5.98</b>	<b>5.98</b>

Note: Waste figures are based on Council Guidelines.

### **1.3 Collection Services**

Based on the insufficient space for onsite storage of a large number of municipal bins, a private contractor shall be engaged to collect waste. The Operator shall choose a waste collection provider, negotiate a service agreement and pay for these services.

### **1.4 Location, Equipment and System for Managing Waste**

The waste management system is summarised as follows:

- Apartment receptacles for garbage, recycling, glass and organics (with option for the latter as a benchtop caddy).
- Bin Store located at Ground Level.
- Collection bins (kept within the Bin Store - refer to Table 2).

The various collection waste streams are summarised as follows:

Garbage: General waste shall be placed in tied plastic bags and stored within bins.

Recycling: Two types of bins shall be provided. One type of bin for glass, and a second type for all other recyclables (paper, cardboard, aluminium, steel and plastics).

Green Waste: Garden organics from communal areas shall be collected and disposed by the landscape maintenance contractor. For the disposal of green waste from private areas, residents shall deposit suitable materials into Organics Bins.

Food Waste: Users shall place suitable food waste into Organics bins.

Other Waste Streams: The disposal of hard/electronic/liquid and other wastes (polystyrene, batteries, paint, chemicals and detox items, etc) shall be organised with the assistance of the Operator. E-waste must not be disposed in landfill.

The following table summarises bin quantity/capacity, collection frequency and area requirements (based on Table 1):

Table 2: Bin Schedule and Collection Frequency

Waste Source	Waste Stream	Bin Qty	Bin Litres	Collections per Week	Net Area m <sup>2</sup>
Whole Development (shared private bins)	Garbage	2	1,100	2	3.2
	Organics	5	240	2	2.5
	Recycling	2	1,100	2	3.2
	Future Glass	4	240	2	2.0
	Hard/E-Waste	-	-	At Call	2.0
<b>Net Waste Storage Area (excludes circulation), m<sup>2</sup>:</b>					<b>12.9</b>

Notes:

- Private bins shall be sourced by the Operator (either purchased from a supplier or leased from the collection contractor).
- Subject to stakeholders' preference/capability (and as built constraints), bin sizes and quantities can be changed. Also, recyclables can be either commingled or split into bins for separate recycling streams.

### 1.5 Planning Drawings, Waste Areas and Management of the Waste System

The drawings illustrate sufficient space for onsite bin storage, as required by the above schedule.

Notwithstanding the above, collection days shall be staged appropriately and the Operator shall stipulate procedures for effective management of the available space.

### 1.6 Collection Bin Information

The following bins shall be utilised (see Sect. 4.4 for signage requirements):

Table 3: Bin Details

Capacity (litres)	Height (mm)	Width (across front, mm)	Depth (side on, mm)	Empty Weight (kg)	Average* Gross Weight (kg)
240	1060	585	730	13	45
1100	1330	1240	1070	65	210

Notes:

- \* = Average Gross Weight is based on domestic waste studies (which vary subject to locality and waste-type). Expect greater weight for wet or compacted waste.
- Use the above details as a guide only – variations will occur. The above is based on Sulo plastic flat-lid bins.

Table 4: AS 4123.7-2006 Plastic Bin Colour Coding

<b>Bin</b>	<b>Garbage</b>	<b>Recyclables</b>	<b>Green Waste</b>
Lid	Red	Yellow	Lime Green
Body	Dark Green / Black	Dark Green / Black	Dark Green / Black

Note: Victorian publications illustrate bins with lime-green lids for food/green waste and purple lids for glass bins. Private bins shall be labelled to identify the waste generator and site address. For Food Waste / Organics bins, AS 4123.7 bins have a Burgundy lid and a Dark Green or Black body.

## **2 ACCESS FOR USERS, COLLECTORS AND COLLECTION VEHICLES**

### **2.1 User Access to Waste Facilities**

Residents shall dispose sorted waste into designated collection bins located within the Bin Store (access via the lift/stairs).

Note: The Operator shall have access to the Bin Store to rotate the bins, ensuring that empty bins are available along the circulation area so that users are able to reach the bins.

### **2.2 Collection Arrangements and Access to Waste Facilities**

- A private contractor shall collect waste on Grosvenor Street and Brunning Street (from South facing Bin Store).
- Collection staff shall have access to the Bin Store, and transfer bins to the truck and back to the store.
- The waste collection shall be carried-out by rear-lift vehicles (nom. 8.8m long and 4m operational height).

Notes:

- For improved safety, waste collections and bin transfers shall be carried-out during off-peak traffic periods.
- The project's traffic engineer shall provide traffic management information.

### **3 AMENITY, LOCAL ENVIRONMENT AND FACILITY DESIGN**

#### **3.1 Noise Minimisation Initiatives**

- Collection bins shall feature rubber wheels for quiet rolling during transfers.
- The waste system and collections shall meet relevant acoustic requirements.
- Local laws shall be observed for all operations in public and private areas.
- Local laws shall be observed for all operations in public and private areas (in particular, Port Phillip's Local Law No. 1, which can be found at [www.portphillip.vic.gov.au](http://www.portphillip.vic.gov.au)).
- As specified in Council's Local Law No. 1, domestic waste must be collected between the following hours:
  - 6:30am to 8:00pm Monday to Saturday;
  - 9:00am to 8:00pm Sunday; and
  - 6:30am to 8:00pm on Public Holidays.
  - Note: Refer to local laws for detailed requirements.

#### **3.2 Litter Reduction and Prevention of Stormwater Pollution**

The Operator shall be responsible for:

- Promoting adequate waste disposal into the bins (to avoid waste-dumping).
- Securing the waste areas (whilst affording access to users/staff/contractors).
- Storing bins out of public view.
- Preventing overfilled bins, keeping lids closed and bungs leak-free.
- Abating any site litter, and taking action to prevent dumping and/or unauthorised use of waste areas.
- Requiring the collection contractor to clean-up any spillage that might occur when clearing bins.

The above will minimise the dispersion of site litter and prevent stormwater pollution (thus avoiding impact to the local amenity and environment).

### **3.3 Ventilation, Washing and Vermin-Prevention Arrangements**

Waste areas shall feature:

- Ventilation in accordance with Australian Standard AS1668.
- Adequate vermin-proofing and tight-fitting doors (all other openings shall have vermin-proof mesh or similar).
- Impervious flooring (also, smooth, slip-resistant, and appropriately drained).
- A graded bin wash area, hosecock, hose, and a suitable floor-waste connected in accordance with the relevant authority requirements (alternatively, Operator shall engage a suitable contractor to wash bins in a mobile bin-wash vehicle). The bin and wash areas may overlap, as stored bins can be moved so that a bin can be washed.

The Operator shall regularly clean waste areas/equipment. Also, access doors and bin-lids shall be kept closed.

### **3.4 Design and Aesthetics of Waste Storage Areas and Equipment**

Waste shall be placed within collection bins and stored in designated onsite areas (hidden from external view). Following waste collection activities, bins shall be returned to the storage areas as soon as practicable.

Waste facilities shall be constructed of 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). Access doors shall feature keyless opening from within.

The design and construction, of waste facilities and equipment, shall conform to the Building Code of Australia, Australian Standards and local laws.



## **4 MANAGEMENT AND SUSTAINABILITY**

### **4.1 Waste Sorting, Transfer and Collection Responsibilities**

Garbage shall be placed within tied plastic bags prior to transferring into the collection bins. Cardboard shall be flattened, and recycling containers un-capped, drained and rinsed prior to disposal into the appropriate bin. Bagged recycling is not permitted.

Refer to Section 1.4 for all other waste streams and details of the waste system. Also, Section 2 outlines waste transfer requirements and collection arrangements.

### **4.2 Facility Management Provisions Including Maintenance & Improvements**

The development's owner/applicant shall appoint an Operator whilst providing the planning permit, this report, and any other relevant documentation associated with the waste system.

The Operator shall be responsible for managing the waste system and for developing and implementing safe operating procedures (refer to the glossary in page 2).

It shall be the responsibility of the Operator, to maintain all waste areas and components, to the satisfaction of users, staff and the relevant authority (residents shall maintain their internal waste receptacles).

The Operator shall ensure that maintenance and upgrades are carried-out, on the facility and components of the waste system. When required, the Operator shall engage an appropriate contractor to conduct services, replacements or upgrades.

### **4.3 Arrangements for Protecting Waste Equipment from Theft and Vandalism**

It shall be the responsibility of the Operator to protect the equipment from theft and vandalism. This shall include the following initiatives:

- Secure the waste areas.
- Label the bins according to property address.
- The private collection contractor shall transfer bins between the site and the truck in the street (bins shall not be placed for collection outside the site boundary).

### **4.4 Communication Strategy - Arrangements for System Labelling and Ensuring Users and Staff are Aware of How to Use the System Correctly**

- The Operator shall provide appropriate signage for the bins. Signage is available at the following internet address: [www.sustainability.vic.gov.au](http://www.sustainability.vic.gov.au).
- The Operator shall publish/distribute "house rules" and educational material to:
  - Inform users/staff about the waste management system and the use/location of the associated equipment (provide the summary in page 2 of this report).
  - Improve facility management results (lessen equipment damage, reduce littering and achieve cleanliness).
  - Advise users/staff how to sort waste with care to minimise contamination of various waste streams.
- For user safety when disposing waste, the Operator shall develop and provide safety instructions.

#### **4.5 Sustainability and Waste Avoidance/Reuse/Reduction Initiatives**

The *Environment Protection Amendment Act 2018* (and the principal EPA Act of 2017) includes fundamentals of environment protection and guidance for waste management decision making. Also, the *Sustainability Victoria Act 2005* established Sustainability Victoria as the statutory authority for delivering programs on integrated waste management and resource efficiency.

From a design perspective, the development shall support the acts by providing an adequate waste system with ability to sort waste.

The Operator shall promote the observance of the acts (where relevant and practicable), and encourage users and staff to participate in minimising the impact of waste on the environment. For improved sustainability, the Operator shall consider the following:

- Observe the *Environment Protection Amendment Act 2018* principle of waste management hierarchy, which states that waste should be managed in accordance with the following order of preference, so far as reasonably practicable: a) avoidance, b) reuse, c) recycling, d) recovery of energy, e) containment, and f) waste disposal.
- Peruse the Sustainability Victoria website: [www.sustainability.vic.gov.au](http://www.sustainability.vic.gov.au).
- Participate in Council and in-house programs for waste minimisation.
- Establish waste reduction and recycling targets; including periodic waste audits, keeping records, and monitoring of the quantity of recyclables found in landfill-bound bins (sharing results with users/staff).

#### **4.6 Waste Management Plan Revisions**

For any future appropriate Council request, changes in legal requirements, changes in the development's needs and/or waste patterns (waste composition, volume or distribution), or to address unforeseen operational issues, the Operator shall be responsible for coordinating the necessary Waste Management Plan revisions, including (if required):

- A waste audit and new waste strategy.
- Revision of the waste system (bin size/quantity/streams/collection frequency).
- Re-education of users/staff.
- Revision of the services provided by the waste collector(s).
- Any necessary statutory approval(s).

## 5 SUPPLEMENTARY INFORMATION

- The Operator shall observe local laws and ensure that bins aren't overfilled or overloaded.
- Waste incineration devices are not permitted, and offsite waste treatment and disposal shall be carried-out in accordance with regulatory requirements.
- For bin traffic areas, either level surfaces (smooth and without steps) or gentle ramps are recommended, including a roll-over kerb or ramp. Should ramp gradients, bin weight, and/or distance affect the ease/safety of bin transfers, the Operator shall consider the use of a suitable tug.
- The Operator and waste collector, shall observe all relevant OH&S legislation, regulations and guidelines. The relevant entity shall define their tasks and:
  - Comply with Worksafe Victoria's Occupational Health and Safety Guidelines for the Collection, Transport and Unloading of Non-hazardous Waste and Recyclable Materials (June 2003).
  - Assess the Manual Handling Risk, and prepare a Manual Handling Control Plan for waste and bin transfers (as per regulatory requirements and Victorian COP for Manual Handling).
  - Obtain and provide to staff/contractors: equipment manuals, training, health and safety procedures, risk assessments, and adequate personal protective equipment (PPE) to control/minimise risks/hazards associated with all waste management activities. As a starting point, these documents and procedures shall address the following:

<b>Task (to be confirmed)</b>	<b>Hazard (TBC)</b>	<b>Control Measures (TBC)</b>
Sorting/disposing waste and cleaning the waste system	Bodily puncture. Biological & electrical hazards	Personal protective equipment (PPE). Develop a waste-sorting procedure
Waste/bin manual handling	Sprain, strain, crush	PPE, staff training. Maintain bin wheel-hubs. Limit waste/bin weight. Provide mechanical assistance to transfer bins
Bin transfers and emptying into truck	Vehicular strike, run-over	PPE. Develop a Hazard Control Plan for transfers and collections. Maintain visibility. Use a mechanical bin-tipper
Truck access	Vehicular incident, strike, run-over	PPE. Use a trained spotter. Develop a truck-maneuvring and traffic-control procedure

Note: The above shall be confirmed by a qualified OH&S professional, who shall also prepare site-specific assessments, procedures and controls (refer to Section 6).

## **6 CONTACT INFORMATION**

**City of Port Phillip** (local Council), ph 03 9209 6777

**Waste Wise Environmental** (private waste collector), ph 1300 550 408

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

**PuraAir** (odour control equipment supplier), ph 1300 972 736

**FJP Safety Advisors** (OH&S consultant), ph 03 9255 3660

**Electrodrive** (tug & trailer supplier – for bin transfers), ph 1300 934 471

**Warequip** (tug supplier – for bin transfers), ph 1800 337 711

**Sulo MGB Australia** (bin supplier), ph 1300 364 388

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

Note: The above includes a complimentary listing of contractors and equipment suppliers. The stakeholders shall not be obligated to procure goods/services from these companies. Leigh Design does not warrant (or make representations for) the goods/services provided by these suppliers.

## **7 LIMITATIONS**

The purpose of this report is to document a Waste Management Plan, as part of a Planning Permit Application.

This report is based on the following conditions:

- Ongoing use of the development (excludes demolition/construction phases). In particular, for occupation and fit-out phases, the Operator shall determine specific waste procedures.
- 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 patronage, occupancy rate, waste generation intensity, the user'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, STCA).
- This report shall not be used to determine/forecast operational costs, or to prepare feasibility studies, or to document operational/safety procedures.