



# Leigh Design

*waste management plans for all urban developments*

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## Waste Management Plan



### Proposed Development:

**102 Iluka Road, Palm Beach, New South Wales**

### Prepared for:

**Mainway Management Pty Ltd**

### Document Control

Report Date: 15 September 2021

Prepared By: Andrew McIntosh, Associate

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### **WASTE MANAGEMENT SUMMARY**

- The owner(s)/resident(s) shall be responsible for managing the waste system, and for developing and implementing adequate safe operating procedures.
- Waste shall be stored within the development (hidden from external view).
- Users shall place sorted waste into dedicated collection bins.
- Waste shall be collected on Iluka Road. The owner(s)/resident(s) shall transfer Council bins between the building and kerbside.
- Council shall provide waste collection services.

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

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

This development shall consist of a single dwelling (refer to Table 1).

### **1.2 Estimated Garbage and Recycling Generation**

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

Table 1: Waste Estimate

Waste Source	Base Qty (est.)	Garbage	Commingled Recycling	Paper & Cardboard	Vegetation
Dwelling	No. of units = 1	0.08	0.07	0.07	0.12
<b>TOTAL (m<sup>3</sup>/wk)</b>		<b>0.08</b>	<b>0.07</b>	<b>0.07</b>	<b>0.12</b>

Note: Residential waste figures are based on Council's volumetric requirements.

### **1.3 Collection Services**

Council shall provide kerbside collection services.

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

The waste management system is summarised as follows:

- Dwelling receptacles for garbage/recycling/organics.
- Collection bins (kept within the garage/courtyard/backyard of the dwelling - 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 mixed containers (for glass, aluminium, steel and plastics) and a second type for paper and cardboard.

Vegetation: Users shall place vegetation into the Council vegetation bin.

Food Waste: Users shall consider composting/worm farming within suitable garden/courtyard areas.

Other Waste Streams: The disposal of bulky/electronic/liquid and other wastes (polystyrene, batteries, paint, chemicals and detox items, etc) shall be organised with the assistance of the Council.

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>
Dwelling (dedicated Council bins)	Garbage	1	80	1	2m <sup>2</sup>
	Mixed Containers.	1	140	Fortnightly	
	Paper & Cardboard	1	140	Fortnightly	
	Vegetation	1	240	Fortnightly	
<b>Net Waste Storage Area (excludes circulation), m<sup>2</sup>:</b>					<b>2.0</b>

Note: Council shall provide the bins (supply cost applies).

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

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

Notwithstanding the above, the owner(s)/resident(s) 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)
80	860	450	530	9	19
140	930	535	615	11	30
240	1060	585	730	13	45

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 (HDPE) flat-lid bins.

**Table 4: Northern Beaches Colour Coding**

Bin	Garbage	Mixed Containers	Paper & Cardboard	Vegetation
Lid	Red	Yellow	Blue	Lime
Body	Black	Black	Black	Black

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

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

Residents shall dispose sorted garbage and recyclables into designated collection bins, located within the dwelling garages/courtyards/backyard.

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

- Council shall collect waste on the Iluka Road verge (kerbside - site's frontage).
- Prior to the collection, residents shall transfer Council bins from the dwelling storage location to kerbside (returning the bins once the collection has taken place). Council's instructions for kerbside bin-placement must be followed.
- The waste collection shall be carried-out by side-lift vehicles (nom. 8.8m long and 4m operational height).

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

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

- Collection bins shall feature rubber wheels for quiet rolling during transfers.
- Waste areas shall meet BCA and AS2107 acoustic requirements.
- Local laws shall be observed for all operations in public and private areas.
- Municipal waste collections shall take place as per Council's timing/schedule.

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

The owner(s)/resident(s) 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 and keeping lids closed.
- Abating any site litter, and taking action to prevent dumping and/or unauthorised use of waste areas.
- Reporting to Council any spillage resulting from the collection of municipal 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**

Where bins shall be stored within the garage, this area shall be ventilated to reduce odour. Where bins shall be stored within the dwelling courtyards/backyard, the bin area shall be ventilated naturally.

For hygienic reasons, bins shall be washed as required (the operator/residents shall engage a suitable contractor to wash bins in a mobile bin-wash vehicle).

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

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

Bin areas (garages and bin screens) shall be constructed of durable materials and finishes, and maintained to ensure that the aesthetics of the development are not compromised.

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 2 for waste transfer requirements and collection arrangements.

### **4.2 Facility Management Provisions to Maintain & Improve the Waste System**

It shall be the responsibility of the owner(s)/resident(s) to maintain all waste areas and components, to the satisfaction the relevant authority (residents shall maintain their internal waste receptacles).

Owner(s) shall ensure that maintenance and upgrades are carried-out on the facility and components of the waste system. When required, the owner(s) 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 owner(s)/resident(s) 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.
- Council bins shall be placed on the kerbside no-sooner than the night before the collection (and promptly returned to the storage areas after the collection).

### **4.4 Arrangements for Bins/Equipment Labelling, and Ensuring Users and Staff are Aware of How to Use the Waste System Correctly**

- The operator shall provide appropriate signage for the bins. Signage is available at the following internet address:  
[www.environment.nsw.gov.au/warr/RecyclingSigns.htm](http://www.environment.nsw.gov.au/warr/RecyclingSigns.htm).
- The owner(s)/resident(s) 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 to sort and recycle waste with care to reduce contamination of recyclables.

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

The New South Wales' Waste Avoidance and Resource Recovery Act promotes waste avoidance and sets targets for increasing the recovery rate of solid waste for reuse and recycling.

The operator shall promote the observance of the above legislation 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:

- Perusal of the New South Wales Environment and Heritage Website: [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au).
- Consideration of state's Waste Hierarchy (in order of preference): 1) waste avoidance, 2) resource recovery (reuse/recycle), and 3) waste disposal.
- Participation in council and in-house programs for waste minimisation.
- Establishment of 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 owner(s)/resident(s) 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 owner(s)/resident(s) 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 owner(s)/resident(s) 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:
  - Abide by all relevant OH&S legislation, regulations, and guidelines.
  - Ensure the collector's compliance with NSW WorkCover Code of Practice for Collection of Domestic Waste.
  - Address the manual handling risk for waste and bin transfers (as per the National Code of Practice for Manual Handling).
  - Observe the NSW WorkCover Code of Practice for risk assessments. 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 waste and cleaning the waste system	Bodily puncture. Biological & electrical hazards	Personal protective equipment (PPE). Develop a waste-sorting procedure
Bin manual handling	Sprain, strain, crush	PPE, staff training. Maintain bin wheel-hubs. Limit 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-manoeuving 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**

**Northern Beaches Council** (local council), ph 1300 434 434

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

**Electrodrive** (tug & trailer supplier – for bin transfers), ph 1800 033 002

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

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:

- Operational use of the development (excludes demolition/construction stages).
- Drawings and information supplied by the project architect.
- The figures presented in this report are estimates only. The actual amount of waste will depend on the development's occupancy rate and waste generation intensity, the user's disposition toward waste and recycling, and the owner(s)/resident(s)' approach to waste management. The owner(s)/resident(s) 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.