

# Appendix L

## Waste Management Plan

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## WASTE MANAGEMENT PLAN FOR LOT 37 MONTARIO QUARTER, SHENTON PARK

This document describes the waste management approach for the mixed-use complex at Lot 37 Montario Quarter, Shenton Park. The size and location of the bin store, responsibilities, collection process and Strata Management obligations are all described within.


## DISCLAIMER

In order to provide structure to the conclusions derived in this document certain assumptions have been made. These assumptions are based on the Consultant's informal enquiries, knowledge and experience from working in the waste management industry.

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## 1 Background

The multi-level mixed-use complex is proposed to be developed at Lot 37 Montario Quarter in Shenton Park. The location of the complex is on the west side of Selby Street near the intersection with Nash St. The development will include 153 residential units and 4,315 m<sup>2</sup> of commercial space.

This Waste Management Plan has been developed in consultation with the Client, TRGP-PW No.1 2017, Architect, Cameron Chisholm Nicol and the City of Nedlands. The Waste Management Plan describes the responsibilities of the Strata Manager, Caretaker and occupants of the complex. The Waste Management Plan also describes the spatial allocation and management of waste services for the complex.

The Waste Management Plan is required to satisfy the requirements of the City of Nedlands and will be included in a development application submission.

## 2 City of Nedlands Waste Management Requirements

### 2.1 Waste Services Guidelines

The City of Nedlands has not yet published a guideline for use in preparing waste management plans. The City of Nedlands has advised that all residential collections, including bulk waste are to be carried out by its waste collection contractors as authorised by the City of Nedlands.

The City of Nedlands prefers collections to be in 1100 Litre MGBs (mobile garbage bins) and based on a weekly service for both garbage and recycling. The City of Nedlands has agreed to allow the use of 660 L MGBs rather than the larger 1100 L MGBs within this complex.

A bulk waste service is provided twice yearly using the City's waste contractor's 10 m<sup>3</sup> bulk waste bins. Due to area constraints in the loading dock the City of Nedlands has agreed to consider the use of smaller 4.5 m<sup>3</sup> skips for bulk waste collection. The smaller 4.5 m<sup>3</sup> are available from the City's bulk waste collection contractor. The smaller skips require a lower overhead clearance of 4.3 m. The loading dock has an overhead clearance in excess of 4.6 m.

For a complex the size of Lot 37 Montario Quarter, the City of Nedlands recommends, but does not insist, that charity bins be provided for the collection of usable household items.

To provide more depth to this waste management plan we have drawn on two other waste management plan guidelines being:

- Waste Services Guidelines for New Developments, City of Perth; and
- Waste Guidelines for New Developments, City of South Perth, July 3, 2017.

The key points for the City of Perth Guideline are as follows and have been complied with, where appropriate, in this Waste Management Plan:

- Waste and recycling storage containers must be stored at all times within the boundary of the complex;
- Sufficient space (i.e. 1 m<sup>2</sup> per 240 Litres) must be provided for bins and associated equipment to manage all waste and recyclables likely to be generated on the premises between collections;



- Space must be provided within the premises in close proximity to the vehicle entrance and no lower than one level below the street for the storage of waste and recycling;
- The rooms for storage of waste and recycling must be located in a position that is convenient for both users and collection staff;
- Doors to waste or recycling storage areas must be of sufficient width to allow easy removal and return of all bin sizes and should have the ability to be locked open;
- A suitable refuse collection point must be nominated where waste loading activities can occur on a level surface away from parking bays and vehicle ramps;
- The path for wheeling bins between a collection point and the service vehicle must be level and free of all obstacles sills or ramps;
- The maximum travel distance between the collection point and the service vehicle for all bin sizes and service type is 10 metres;
- Adequate overhead vehicle clearance is required;
- All service vehicles must enter and exit the complex in a forward direction, with limited need to reverse;
- Mains water supply and sewer-plumbed drainage outlets are to be installed in all bin rooms for the washing of floor and wall surfaces and for the cleaning of bins as required;
- Responsibility for cleaning of waste storage areas and service compartments must be determined when designing the system and clearly stated in the Waste Management Plan;
- Responsibility for transfer of bins within the property and to the collection point must be determined when designing the system and clearly stated in the Waste Management Plan;
- Waste service for commercial properties using the City of Perth collection fleet is collected from 240, 660 or 1,100 Litre mobile garbage bins (MGBs);
- Glass recycling is collected in 240 Litre MGBs;
- Co-mingled recycling is collected in 240, 660 or 1,100 Litre MGBs; and
- Paper and cardboard recycling is collected in 240, 660 or 1,100 Litre MGBs.

### 3 Site Location

The complex is located at Lot 37 Montario Quarter, Selby Street, Shenton Park in the City of Nedlands. Access to the bin storage areas located at ground level will be from Selby Street.

### 4 Waste Management

#### 4.1 Bin Type

This Waste management Plan proposes the use of 660 Litre MGBs for the collection of all waste and recycling generated by the residential apartments and commercial tenants of the complex. Two bin stores are proposed for the residential aspect of the complex. MGBs will have to be moved from one residential bin store to the other and the use of 660 Litre MGBs will make it easier to relocate the full MGBs.

This Waste Management Plan has adopted the following colour combinations for its waste and recycling collection services:

- Waste    Green body with red lid
- Comingled recycling                              Green body with yellow lid





Typical 660 L MGBs that is proposed for use in this complex are shown in **Figure 1** and **Figure 2**.

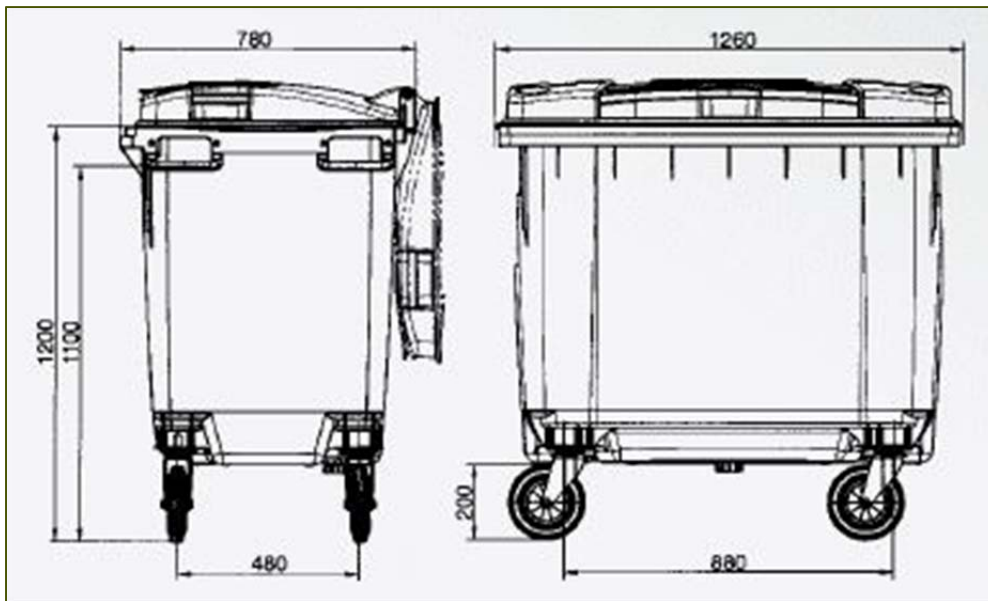


Figure 1: 660 Litre MGB dimensions



Figure 2: Typical 660 Litre MGB used for waste collection

## 4.2 Waste and Recycling Collection

It is intended that the City of Nedlands will provide the garbage and recycling collection services for residential collections. As garbage and recycling will utilise 660 L MGBs rear load collection vehicles will be required.

The commercial 660 L MGBs will be collected by a private waste contractor engaged by Strata Management. The commercial collection will also require a rear load waste truck.

### 4.3 Collection Frequency

One collection per week for 660 L garbage and recycling MGBs is proposed for residential collection. Bulk waste collection will be carried out twice yearly. All collections for residential waste and recycling will be carried out by the City of Nedlands waste collection contractor.

For commercial garbage and recycling three collections per week are proposed using a private contractor engaged by Strata Management.

### 4.4 Truck Access

Truck access will be from the loading dock located at ground level. Access to the loading dock is from Selby Road. The loading dock is sufficiently large enough for a truck up to 12.5 m in length to enter the loading dock in a forward direction, manoeuvre within the loading dock and exit the loading dock in a forward direction back into Selby Road. Refer **Figure 3**.

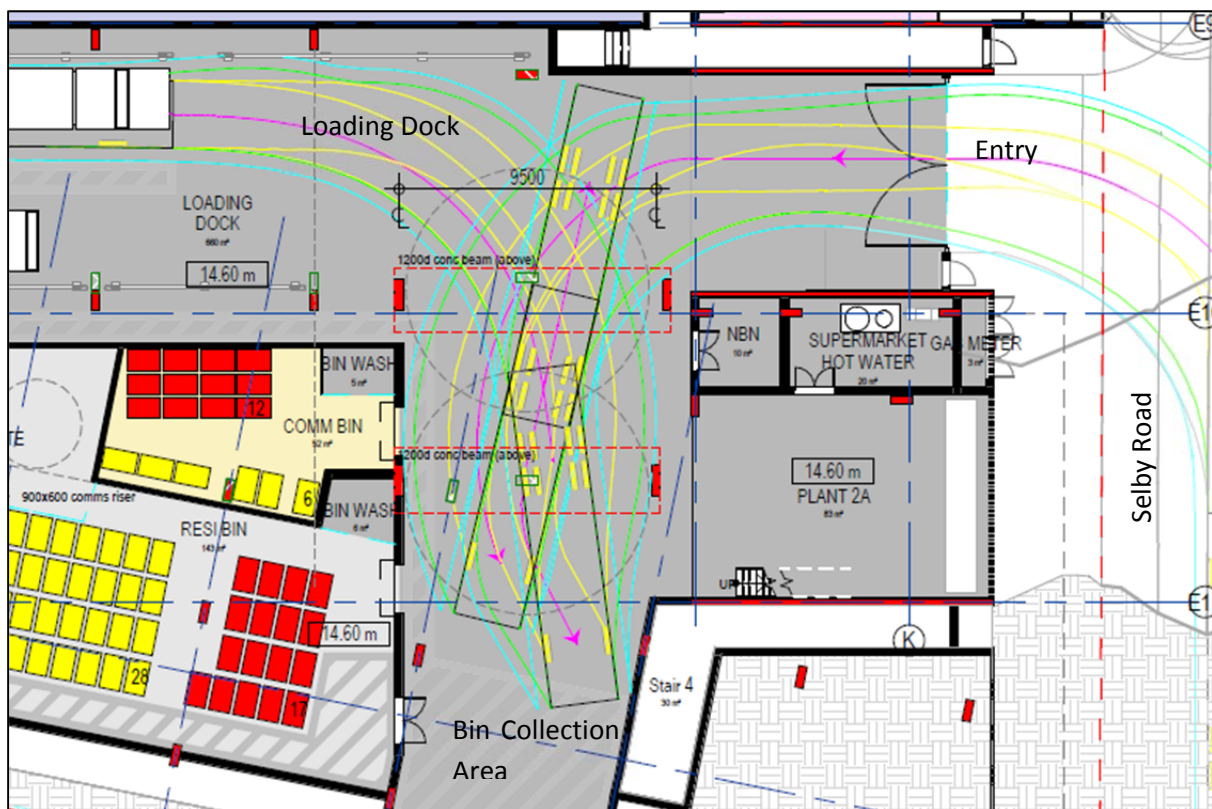


Figure 3: Truck access to loading dock

The clearance height in the loading dock is in excess of 4.6 m. The required clearance for a rear load truck is 4.0 m, the actual height of a rear load truck is less than 3.5 m. The larger skip bin truck requires an operating height of 4.3 m. There is sufficient overhead clearance in the loading dock for all types of waste and recycling collections trucks that are anticipated to be used within the complex.

### 4.5 Collection Process

The same process will be used for both residential and commercial collections. The collection of the MGBs from the proposed development is envisaged to proceed as follows:



- The waste collection truck will drive into the loading dock in a forward motion and reverse up to the bin collection area that is adjacent to the main bin store, refer **Figure 4**;
- MGBs will be brought to the truck from the bin store by the waste collection driver;
- The waste collection driver will empty the MGBs into the truck;
- Empty MGBs will be taken back in to the bin store by the waste collection driver; and
- Waste collection truck will exit the loading dock and continue on its collection route.

The collection area is built with sufficient height clearance and floor area to facilitate the easy access and exit of heavy rigid chassis vehicles.

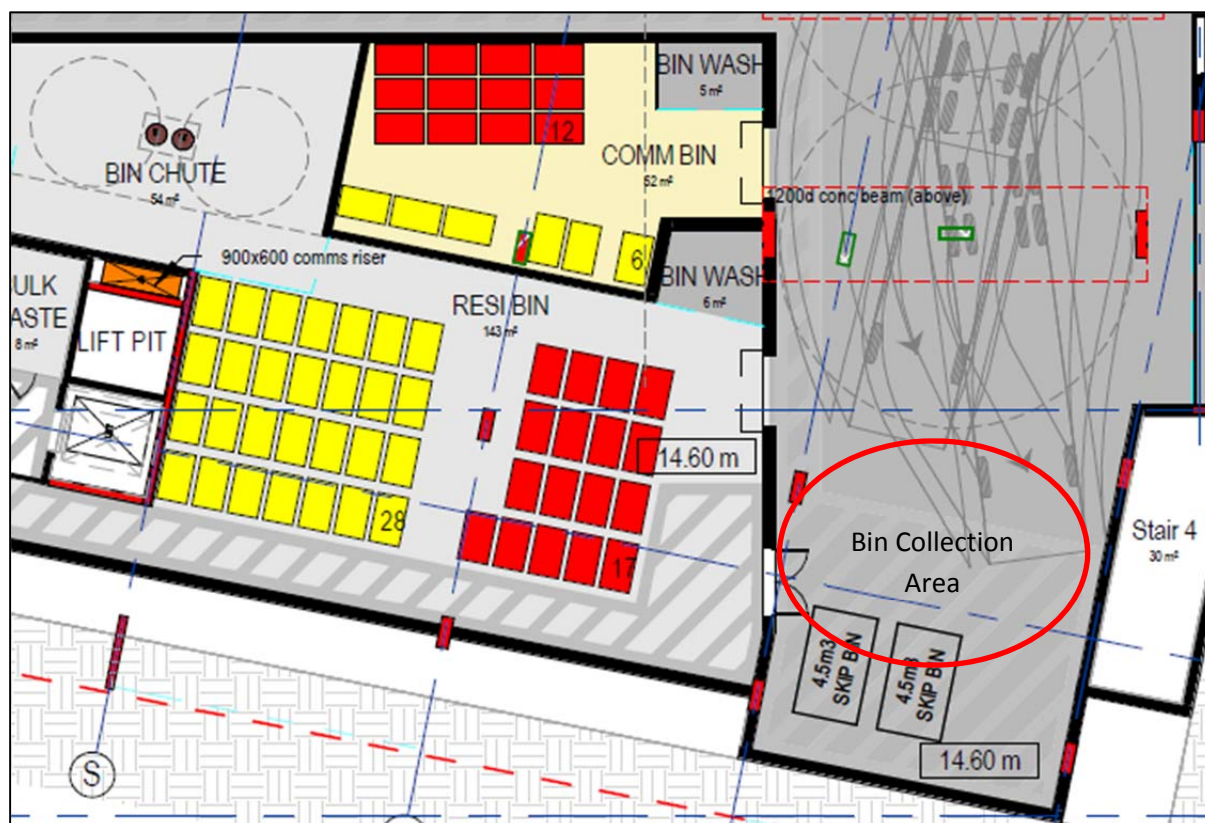


Figure 4: Bin collection area

#### 4.6 Commercial Bin Store

The commercial tenants will deliver waste and recycling to the commercial bin store located adjacent to the loading dock, **Figure 5 and Drawing A03.02**. The commercial bin store will have an area of 57 m<sup>2</sup>. The 660 Litre MGBs in the commercial bin store will be shared bins with collection being the responsibility of Strata Management. Included in the commercial bin store will be a bin wash bay of 5 m<sup>2</sup> in area. The commercial bin store will be fitted with self-closing doors fitted with door locks to hold the doors open while MGBs are being serviced. The commercial bin collection area will be the same location as the residential bin collection area.

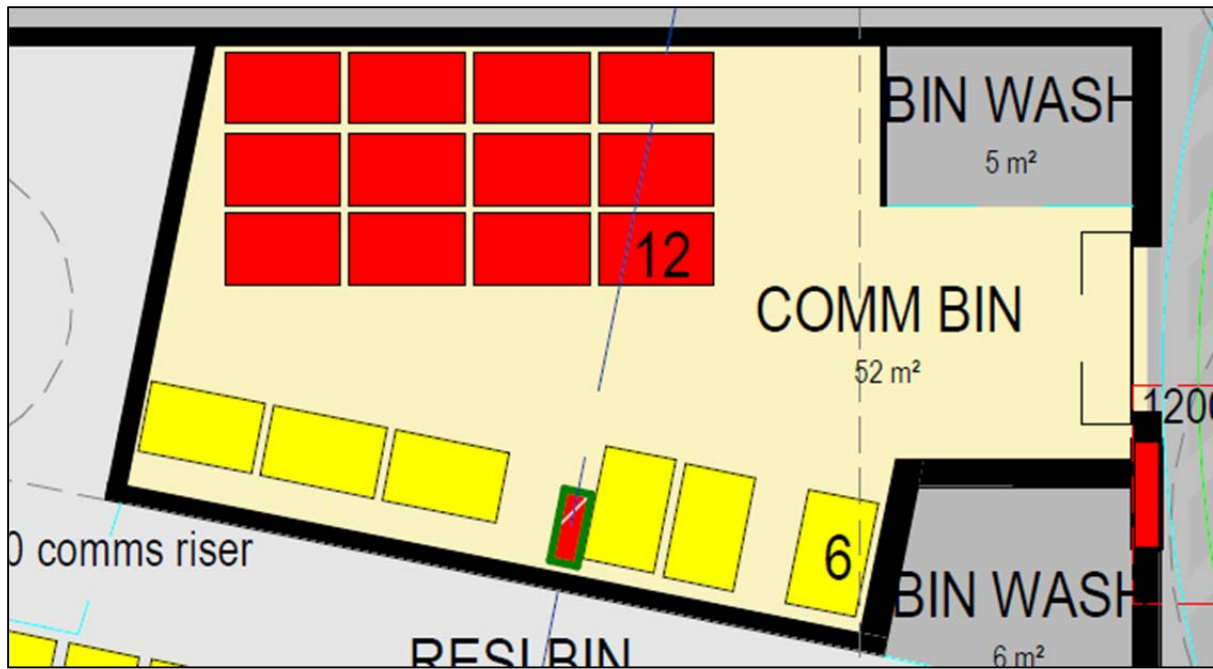


Figure 5: Commercial bin store

#### 4.7 Main Residential Bin Store

At ground level will be the main bin store for storage of residential 660 Litre MGBs, **Figure 6**. Further detail can be found in **Drawing A03.02** attached. The main bin store has a combined area of 211 m<sup>2</sup>. The main bin store includes storage for the requisite number of 660 Litre residential MGBs, two bin chutes, two bin carousals located below the bin chutes, bulk waste storage and a bin wash bay. The main residential bin store will be fitted with self-closing doors fitted with door locks to hold the doors open while MGBs are being serviced.

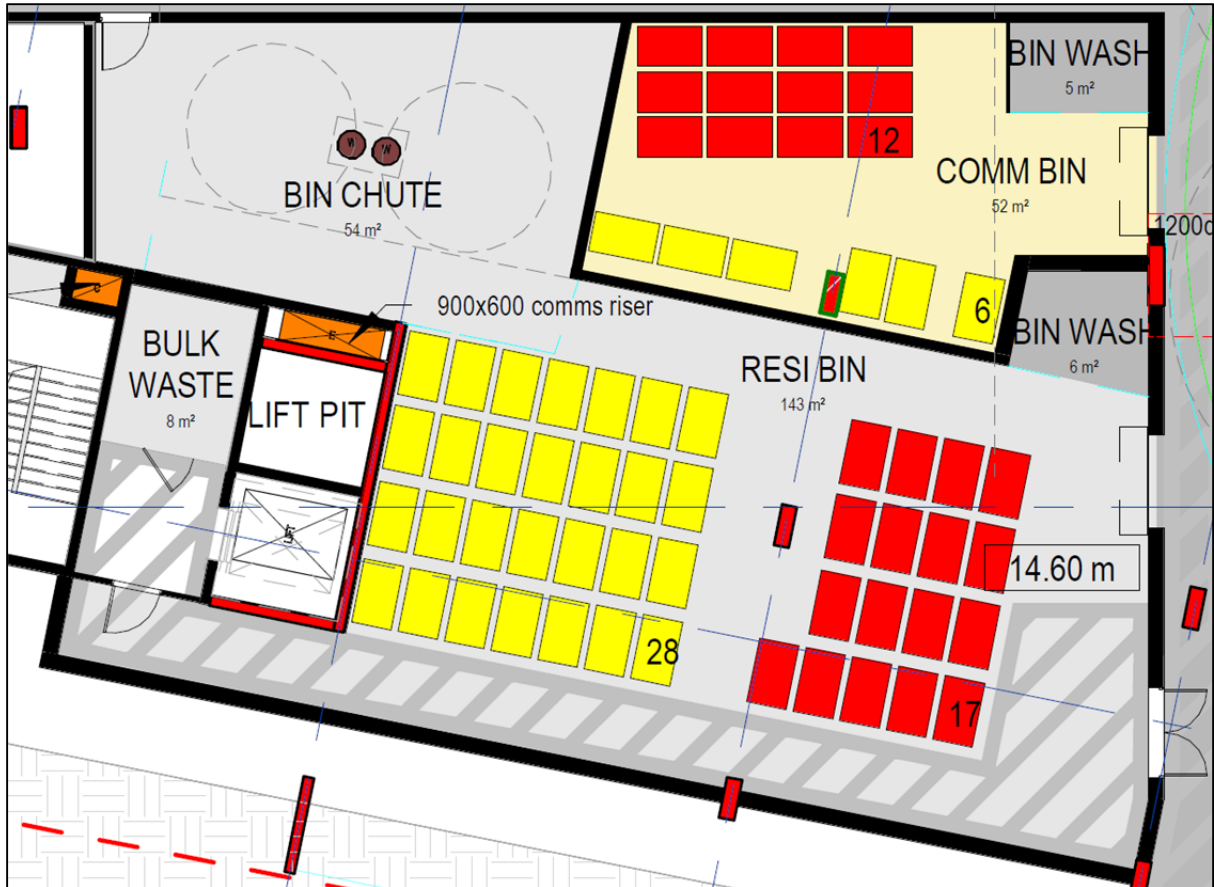


Figure 6: Main bin store (residential)

#### 4.8 Satellite Bin Store

On the northern side of level 1 is a satellite bin store at 28 m<sup>2</sup> for residential use. The satellite bin store supports a small amount of MGBs, approximately six (6) MGBs, to collect waste and recycling from the northern section of the residential tower, **Figure 7**.

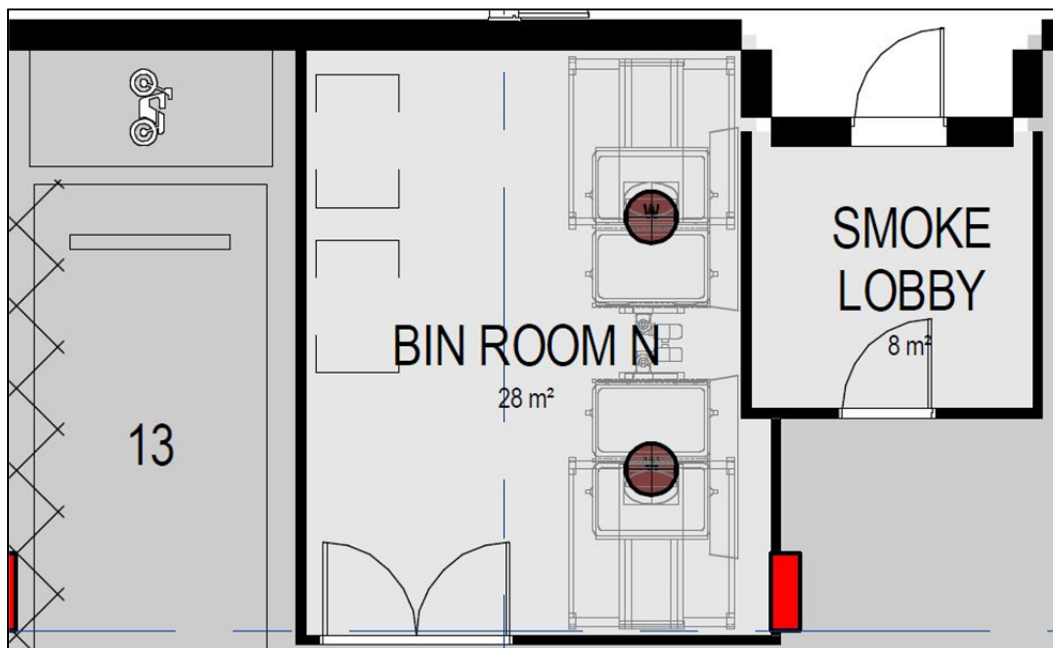


Figure 7: Satellite bin store



## 4.9 Waste Chutes

Waste chutes will be used to transfer garbage and recycling to the two residential bin stores. Two waste chutes will be used in each bin store, one for garbage and one for recycling. All waste on each floor will either be placed in the garbage or recycling chute. A typical bin chute room is shown in **Figure 8**. There is no capacity to store garbage and recycling at each level as there will be no waste room provided on the floors.

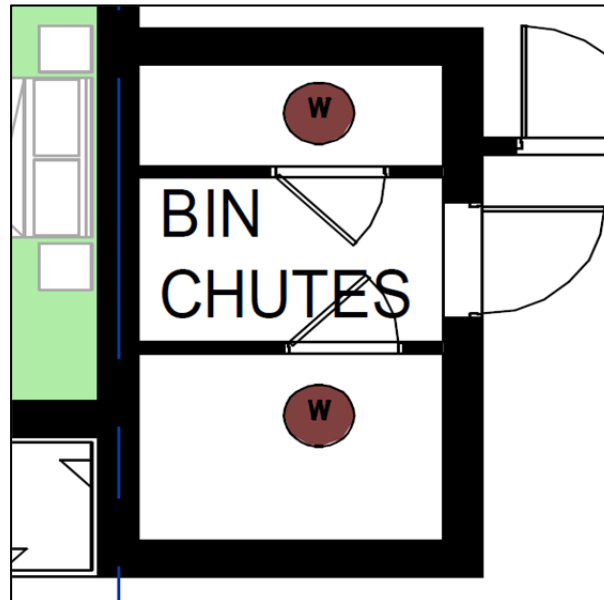


Figure 8: Typical bin chute room

### 4.9.1 Noise from Waste Chutes

Waste and recycling chutes will be proprietary waste chutes designed to minimise noise from handling waste and recycling.

## 4.10 Waste Compaction

At the end of the garbage chutes will be compaction equipment that will be capable of compacting the waste at a compaction ratio of 3:1. The modelling undertaken assumed a conservative compaction ratio of 1.6:1. The waste compactors will be made of high tensile steel, be capable of compacting waste at 20 m<sup>3</sup>/hour and be compatible with conveyor and carousel bin management systems. Garbage is compacted inside the compactor unit and not in the bin. Once the garbage is compacted the billet of garbage is dropped into the MGB that is below the chute.



Figure 9: Typical waste compactor

## 4.11 Bulk Waste

### 4.11.1 Commercial Bulk Waste

The disposal of bulk waste, such as electrical equipment and building debris, from the commercial tenancies will be managed by the commercial tenants. The commercial tenants will be required to liaise with the Caretaker for access to the loading dock, if required, for the removal of bulk waste. There is no capability for storing bulk waste in the commercial bin store.

### 4.11.2 Residential Bulk Waste

Within the main residential bin store is an area reserved for the storage of residential bulk waste. The area is 8.0 m<sup>2</sup> in area and enclosed in a cyclone mesh fence. Residents are encouraged to store bulk waste in their apartments until the nominated collection time. The storage of residential bulk waste in the main bin store will be at the discretion of the Caretaker.

## 4.12 Supermarket

The proposed supermarket will manage its own waste. Garbage and recycling MGBs will remain within the supermarket premises until the restacking of shelves and daily clean-up is completed. Full MGBs will be moved to the supermarket area in the loading dock to await collection. Collection will be daily and between the hours of 6.00 am and midnight. Garbage and recycling collection from the supermarket will not impact on waste management for the commercial tenants and residential apartments.

## 4.13 Specification for the Bin Stores

The bin stores will have personnel doors of no less than 1.6 m in width to allow easy movement of the 660 L MGBs. The bin stores will have sealed concrete floors and walls and artificial lighting. Ventilation of the main bin store and commercial bin store will be by mechanical ventilation through ducts that pass over the top of the plant room and vent adjacent to Selby St. The satellite bin store will vent through a riser duct to the rooftop.

#### 4.14 Bin Store Information Signage

Regularly updated information sheets will be affixed at each entry to the bin stores and display the following information to facilitate waste management at the development:

- Colour code for MGBs, red for waste and yellow for recycling;
- Strata Management contact details;
- Bin collection days and times;
- Waste types appropriate for each bin;
- Notice that bulk waste is not to be stored in the bin stores without approval of the Caretaker; and
- “No Obstruction” sign at the entrance to each bin store.

There will also be bulletins placed on the walls of the bin stores to promote waste reduction and waste separation.

#### 4.15 Wash Bays

Two bin wash bays will be provided, one in the commercial bin store and one in the main residential bin store.

The wash bays will have:

- Reinforced concrete slab floor with fall to a floor waste trap connected to the sewer of minimum 75 mm diameter;
- Passive ventilation through the loading dock;
- Hose cock to facilitate bin washout; and
- Walls to be sealed and painted in a light colour to facilitate washout.

The area of each bin wash bay will be 5.0 m<sup>2</sup> for the commercial wash bay and 6 m<sup>2</sup> for the residential wash bay.

## 5 Waste and Recycling Quantities

### 5.1 Commercial Tenants

The tenancies at ground level include food premises, such as restaurants and cafes, retail shops and office accommodation. **Table 1** summarises the expected tenancy type and floor area.





**Table 1 Floor areas for commercial tenancies**

Tenancy	Tenancy Type	Floor Area (m <sup>2</sup> )
1	Café	182
2	Hairdresser	70
3	Liquor Store	170
4	Pharmacy	238
5	Restaurant	122
6	Restaurant	86
7	Patisserie	76
8	Restaurant	94
9	Service/Office	127
10	Medical	250
11	Service/Office	137
12*	Supermarket	2,796
13	Kiosk	15

The City of South Perth commercial waste generation rates from *Waste Guidelines for New Developments CoSP*, Version 3 July 2017, has been used to forecast commercial waste and recycling generation rates for the proposed complex. The applicable waste and recycling generation rates for various types of premises are detailed within these Guidelines and the relevant ones are displayed in **Table 2** below.

**Table 2: Waste generation rates used in volume calculations (City of South Perth)**

Type of Premises	General Waste Generation (L/100 m <sup>2</sup> floor area/day)	Recyclables Generation (L/100 m <sup>2</sup> floor area/day)
Restaurants	660	200
Office	10	10
Retail – floor area <100 m <sup>2</sup> non food	50	50
Delicatessen	80	50
Green Grocer	240	120
Café	300	200



When fully occupied, the commercial area of the complex will have the potential to generate 22,619 Litres of waste and 10,033 Litres of comingled recycling each week (based on the waste generation rates in **Table 2** above). **Table 3** summaries the expected waste and recycling quantities.

**Table 3: Waste and recycling theoretical generation per week**

Tenancy ID	Tenancy Type	Area (m <sup>2</sup> )	Waste (Litres/week)	Recycling (Litres/week)
1	Café	182	3,822	2,548
2	Barber	70	252	252
3	Liquor Store	170	2,856	1,428
4	Pharmacy	238	714	714
5	Restaurant	122	5,636	1,708
6	Restaurant	86	3,973	1,204
7	Patisserie	76	426	266
8	Restaurant	94	4,343	1,316
9	Medical	127	381	381
10	Services/Office	250	125	125
11	Real Estate Office	137	82	82
13	Kiosk	15	9	9
<b>Total</b>		<b>4,363</b>	<b>22,619</b>	<b>10,033</b>
<b>No. of 660 L MGBs required based on weekly pickup</b>			<b>35</b>	<b>16</b>
<b>No. of 660 L MGBs required based on 3 pickups per week</b>			<b>12</b>	<b>6</b>

The bin store has an area of 57 m<sup>2</sup>. Allowing 2.0 m<sup>2</sup> for each 660 Litre MGB, which provides ample room to manoeuvre MGBs, and 5.0 m<sup>2</sup> for the wash bay we theoretically require 41 m<sup>2</sup> of bin store area confirming that the bin store is of the appropriate size required for the commercial tenants of the complex when utilising three collections per week. **Table 4** shows that allocation of areas within the commercial bin store.<sup>1</sup>

<sup>1</sup> 660 Litre MGB has a footprint of 1.0 m<sup>2</sup>



Table 4: Commercial bin store area allocation

<b>Bin Store Area (Commercial)</b>	<b>57.00 m<sup>2</sup></b>
Waste Bins Area	24.00 m <sup>2</sup>
Recycling Bins Area	12.00 m <sup>2</sup>
Wash Bay Area	5.00 m <sup>2</sup>
<b>Bin Store Area Requirement</b>	<b>41.0 m<sup>2</sup></b>
<b>No. MGBs that can be stored</b>	<b>26</b>
<b>No. MGBs that are required to be stored</b>	<b>18</b>

## 5.2 Residential Apartments

The residential aspect of the complex comprises of 153 apartments in the following configurations:

- Single bed apartments                      29
- Two bedroom apartments                    82
- Three bedroom apartments                42

The City of Nedlands requires 120 Litres per week for garbage and 240 Litres per fortnight for recycling to be allocated to each apartment. Fitted to the garbage bin chutes in the residential bin stores are small waste compaction devices that can compress the garbage volume down to 30% of its original size. This Waste Management Plan has used the conservative position of 60% compaction. Compaction of the garbage prior to being placed in the MGB allows a reduced number of MGBs to be used. There will be no compaction of recycling materials.

Using the City of Nedlands quantity requirements it is forecast that 18,360 Litres of garbage and 18,360 Litres of recycling will be generated each week at full occupancy.

Table 5: Residential waste and recycling theoretical generation per week

Apartment Configuration (bedrooms)	Apartment Quantity	Waste (Litres/week)	Recycling (Litres/week)
1	29	3,480	3,480
2	82	9,840	9,840
3	42	5,040	5,040
<b>Totals</b>	<b>153</b>	<b>18,360</b>	<b>18,360</b>
<b>No. of 660 L MGBs required based on weekly pickup</b>		<b>28</b>	<b>28</b>
<b>With Waste Compaction</b>		<b>17</b>	<b>28</b>

Based on the above the complex will be required to store forty five (45) 660 Litre MGBs in the main bin store, based on weekly collection and waste compaction. The main bin store has a total area of 211 m<sup>2</sup>. **Table 6** shows that allocation of areas within the residential bin store. The main bin store is more than adequate for the residential apartments of the complex.

Table 6: Residential bin store area allocation

<b>Bin Store Area (Residential)</b>	<b>211.00 m<sup>2</sup></b>
Waste Bins Area	34.00 m <sup>2</sup>
Recycling Bins Area	56.00 m <sup>2</sup>
Wash Bay Area	6.00 m <sup>2</sup>
Bulk Waste Storage	8.00 m <sup>2</sup>
Carrousel	56.00 m <sup>2</sup>
<b>Bin Store Area Requirement</b>	<b>160.0 m<sup>2</sup></b>
<b>No. MGBs that can be stored</b>	<b>70</b>
<b>No. MGBs that are required to be stored</b>	<b>45</b>

## 6 Waste Acceptance

Unless otherwise agreed with the collection contractor and the City waste placed outside the MGBs will not be collected. The types of waste for placement in the garbage and recycling MGBs are outlined below.



## 6.1 Waste MGBs

The following wastes will be accepted in the garbage MGBs:

- General waste; and
- Organic waste including food waste.

Items listed below must NOT be placed in the waste MGBs:

- Asbestos;
- Gas bottles;
- Fire extinguishers;
- Hazardous chemicals;
- Construction and demolition materials;
- Pharmaceuticals and medicines;
- Radioactive materials; or
- Items containing metals such as copper, zinc, cadmium, mercury or lead (i.e. batteries or fluorescent lights).

## 6.2 Recycling MGBs

The recycling MGBs will accommodate recyclable materials as follows:

- Plastics with lids removed that have recycling symbols 1, 2, 3 & 5 on the base of the container;
- Glass bottles and jars with lids removed and strictly no broken glass or other types of glass;
- Steel/tin cans, including aerosols with lids removed;
- Milk and juice cartons;
- Aluminium cans, clean foil and foil trays;
- All kinds of cardboard; and
- Clean newspapers, office paper, glossy inserts and magazines.

Items not to be placed in the recycling MGBs include:

- Food scraps;
- Household waste;
- Clothing;
- Oil containers; and
- Ceramics.

## 6.3 Residential Bulk Waste

Bulk waste includes:

- Electronic waste (E-waste) such as televisions, computers, photocopiers, printers, mobile phones, DVD and CD players, VCRs and Hi-Fi equipment;
- Old furniture; and
- Refrigerators and microwaves.

Waste materials that will not be collected as bulk waste include:



- Smoke alarms;
- Motor vehicles parts or whole;
- Bricks, rubble, sand, cement (unless by prior arrangement);
- Gas bottles;
- Tyres;
- Inflammable liquids – including paint, oil etc.; and
- Asbestos cement products.

#### **6.4 Commercial Bulk Waste**

Each commercial tenant will be responsible for the management and disposal of their own bulk waste.

### **7 Waste and Recycling Collection Frequency**

#### **7.1 Commercial Waste and Recycling**

The commercial waste and recycling collections will be provided by a private contractor engaged by Strata Management. It is proposed that these collections will occur three (3) times per week.

#### **7.2 Residential Waste and Recycling Collection**

The residential collection will be carried out using the City of Nedlands waste collection contractor. The residential collections will be weekly on a day nominated by the City.

#### **7.3 Bulk Waste**

The bulk waste collection for residential tenants will utilise two (2) 4.5 m<sup>3</sup> skip bins provided either by the City of Nedlands or Strata Management. The waste collection contractor delivers skip bins to the collection area of the loading dock and collects the skip bins when full.

The normal 10 m<sup>3</sup> bulk bins provided by the City of Nedlands are long, 7.5 m in length, and will extend into the truck turning area within the loading dock. The large bins will also impede access to the main bin store doors. The waste collection trucks for the large 10.0 m<sup>3</sup> bulk bins also require a servicing height of 4.7 m. Due to area restraints in the loading dock two smaller waste skips of 4.5 m<sup>3</sup> capacity are proposed. These skips will be placed at the extreme end of the loading dock in the waste collection area and will not impact on the truck turning area, **Figure 10**.



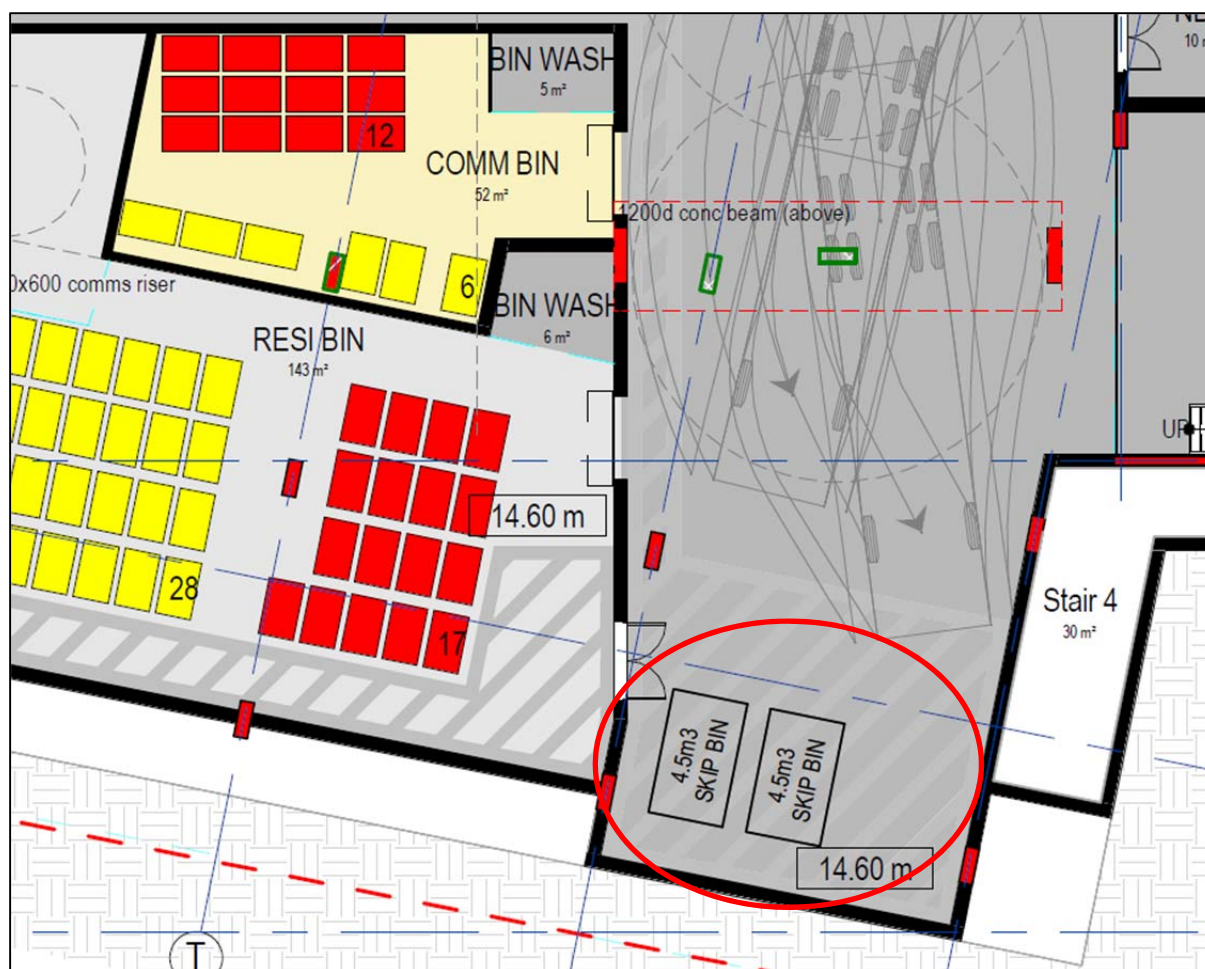


Figure 10: Waste bin location

Two options are proposed for the supply and collection of the skip bins for this complex.

**Option 1** Strata Management engages a waste collection contractor to provide two smaller 4.5 m<sup>3</sup> waste skips twice a year at the same time as the City's bulk waste collection. This service will be at the expense of Strata Management with no involvement from the City of Nedlands.

**Option 2** The City of Nedlands provides two smaller 4.5 m<sup>3</sup> waste skips through its bulk waste collection contractor rather than one large 10.0 m<sup>3</sup> waste bin.

#### 7.4 Other Waste Types

Fluorescent tubes, dry cell batteries, household hazardous waste and other recycled materials can be disposed at the JFR (Jim) McGeough Resource Recovery facility located at the corner of Lemnos Street and Brockway Road Shenton Park.

Free recycling services are available at the JFR (Jim) McGeough Resource Recovery Facility for Member Council residents of the Western Metropolitan Regional Council. As the City of Nedlands is not a member of the Western Metropolitan Regional Council fees may apply for the disposal of some of the below items:

- Cardboard (flattened);
- Clothing;



- Compact fluorescent lights;
- Electronic waste (computers, televisions, printers);
- Household dry cell batteries;
- Lead acid wet cell batteries;
- Gas cylinders (small household);
- Mobile phones;
- Motor oil up to 20 litres;
- Paper;
- Plastic (recycling symbols 1-7), except polystyrene;
- Printer cartridges; and
- Scrap metal.

## 8 Waste Management Responsibilities

### 8.1 Strata Management

The Strata Manager will be required to engage a Caretaker to manage the waste collection and the bin stores. The engagement of a Caretaker will form part of the Strata Management Agreement for the complex.

The Strata Manager's responsibilities are listed below:

- Appoint a Caretaker to manage waste and related activities at the complex;
- Appoint a waste collection contractor to collect bulk waste generated by the commercial tenants;
- Liaise with the City of Nedlands and the City's collection contractor to coordinate the collection day and time for MGB collection;
- Ensure preventative maintenance on bin chutes, carousels and waste compactors is carried out in accordance with manufacturers' specifications;
- Remaining aware of changes to collection schedules, the City's waste collection procedures or other issues that may affect the provision of waste collection services;
- Updating information displayed at the bin stores and waste chutes as required;
- Coordinating the Caretaker and the private waste collection contractor for the placement of bulk waste bins in the loading dock on the nominated collection day; and
- Promoting correct waste separation awareness with the residents and tenants.

### 8.2 Caretaker

The Caretaker will be responsible to undertake the following:

- Inspect the waste chutes on each floor of the complex on a daily basis to ensure that there is no accumulation of waste in the lobby areas, that signage is visible, lobby areas are clean and that the waste chutes are functioning correctly;
- Ensure that the doors on the waste chutes at the bin stores are functioning correctly and that there is no blockages in the waste chutes;
- Change the 660 L MGBs at the base of the waste chutes in the bin stores as the MGBs become full;
- Relocate MGBs between the two residential bin stores;





- Clean and maintain the MGBs and the bin stores;
- Washing and deodorising MGBs as required;
- Schedule preventative maintenance on bin chutes and waste compactor in accordance with manufacturers' specifications;
- Liaise with the waste collection contractor to organise a suitable time for garbage and recycling collection to take place;
- Keep up to date with waste collection issues such as public holiday collection schedules, local service disruptions or changes in collection days;
- Keep up to date with the City of Nedlands's waste management policies and practices;
- Coordinate with the residents to place the bulk waste in the bin store or loading dock at the scheduled collection day;
- If residential bulk waste is managed by Strata Management schedule with a private collection contractor to collect residential bulk waste; and
- Keep updated on the current waste services information displayed on City of Nedlands website [www.nedlands.wa.gov.au](http://www.nedlands.wa.gov.au)

The Caretaker may also be required by Strata Management to perform other duties in addition to those duties included in this Waste Management Plan.

### 8.3 Residents

The residents will be responsible to undertake the following:

- Practice correct waste separation of garbage and recycling;
- Deposit recyclables loose in the recycling chute (not bagged);
- Coordinate with the Caretaker in regards to waste management practices and report any issues;
- Store bulk waste within their apartments until collection day;
- Present bulk waste at the bin store or loading dock immediately prior to the scheduled bulk waste collection day and advise the Caretaker; and
- Keep updated on the current waste services information displayed at the waste chutes and on the City of Nedlands website [www.nedlands.wa.gov.au](http://www.nedlands.wa.gov.au)

### 8.4 Commercial Tenants

The commercial tenants will be responsible to undertake the following:

- Practice correct waste separation of garbage and recycling;
- Deposit recyclables loose in the recycling MGBs;
- Coordinate with the Caretaker in regards to waste management practices and report any issues;
- Manage the disposal of their bulk waste; and
- Keep updated on the current waste services information displayed at the waste chutes and on the City of Nedlands website [www.nedlands.wa.gov.au](http://www.nedlands.wa.gov.au)



## 9 Waste Management Plan Review

On a regular basis (annually at minimum), the Waste Management Plan will require reviewing and updating to address any performance shortfalls, improvements and/or any changes in waste management operating procedures. Any changes to this Waste Management Plan required by the tenants must be approved by Strata Management.

## 10 City of Perth Check List

This section responds to the City of Perth's requirements detailed in its *Waste Services Guidelines for New Developments* to confirm compliance of the complex's waste management services with the City of Perth's requirements. The City of Perth has been used as a reference guideline as the City of Nedlands does not have a waste and recycling guideline.

### 10.1 General

*Waste and recycling storage containers must be stored at all times within the boundary of the subject site.*

MGBs do not leave the complex. MGBs at any time are either in the bin stores or collection area.

### 10.2 Space

*Sufficient space of 1 m<sup>2</sup> per 240 Litre MGB must be provided for MGBs and associated equipment to manage all waste and recyclables likely to be generated on the premises between collections.*

An area of 2.0 m<sup>2</sup>, being double the footprint of a 660 Litre MGB, has been allowed for the storage of each 660 L MGB.

*Space must be provided within the premises in close proximity to the vehicle entrance and no lower than one level below the street for the storage of waste and recycling.*

The collection area is sufficiently large enough to allow the placement of MGBs without obstructing other vehicle movements.

*Indicative waste and recycling generation rates for residential and various commercial development types are listed in the Waste and Recycling Generation Rates tables.*

Waste and recycling quantities have been determined using the City of Nedlands requirements for residential waste and recycling and the City of South Perth guideline for commercial waste and recycling.

### 10.3 Access

*The room/s for storage of waste and recycling must be located in a position that is convenient for both users and collection staff.*

The bin store is located in close proximity to the lifts and loading dock. This reduces the distance that MGBs are required to be moved. The collection area is positioned adjacent to the main bin store.



*Doors to waste or recycling storage areas must be of sufficient width to allow easy removal and return of all bin sizes and should have the ability to be locked open.*

Each bin store has a set of double doors each with a clear width of no less than 1.6 m.

*A suitable refuse collection point must be nominated where waste loading activities can occur on a level surface away from parking bays and vehicle ramps.*

Waste collection is carried out in the collection area in the loading dock which can accommodate heavy vehicles including skip bin trucks.

*The path for wheeling bins between a collection point and the service vehicle must be level and free of all obstacles including, but not limited to, loose gravel or dirt, steps, kerbs, speed bumps, berms, sills or ramps.*

The floor of the bin stores and bin store access point is reinforced concrete with no ramps or steps.

*The maximum travel distance between the collection point and the service vehicle for all bin sizes and service type is 10 metres. This applies to all collections, whether the service point is inside or outside the property boundaries.*

The collection area is in close proximity to the collection vehicle.

*Where vehicles are required to drive into a building to collect waste or recycling, adequate vehicle clearance is required. Access to the collection point(s) within a building must enable all service vehicles to both enter and exit the premises in a forward direction, with limited need to reverse.*

The loading dock and collection area are purpose built with sufficient overhead clearance and manoeuvrability room to accommodate heavy waste collected vehicles including skip bin trucks.

*Any turning circle considerations must also include allowances for driver steering error and overhangs. Designers and developers should refer to Australian Standard AS 2890.2 Parking Facilities: Off Street Commercial Vehicle Facilities.*

The loading dock will be built to accommodate heavy vehicles.

## 10.4 Amenity

*For multi-unit residential buildings and multi-storey commercial buildings, it is preferable for the collection point to be inside the building, for example in an underground car park, as this reduces the noise impact on surrounding residents.*

Waste and recycling collection is carried out in the collection area at ground level that is not visible from the street.

*Mains water supply and sewer plumbed drainage outlets should be installed in all bin rooms or compounds to allow for the washing of floor and wall surfaces and for the cleaning of bins as required.*

There is a dedicated bin wash bay in the main bin store and the commercial bin store for the washing and deodorising of bins.



## 10.5 Management

*Responsibility for cleaning of waste storage areas and service compartments must be determined when designing the system and clearly stated in the Waste Management Plan.*

*Responsibility for transfer of bins within the property and to the collection point must be determined when designing the system/s and clearly stated in the Waste Management Plan.*

The overall responsibility for waste management is the responsibility of Strata Management and detailed in this Waste Management Plan.

*If waste containers are left kerbside for collection they must be taken back within the property boundary on the same day of service. Waste and recycling containers cannot be stored in the public domain.*

All waste collection is carried out at ground level inside the complex.

*For all properties that have lockable collection points the City of Perth may require one key or remote device for each of the waste types serviced.*

The waste collection contractors will be provided with keys to the main bin store and the commercial bin store for the removal, emptying and return of MGBs.

## 11 Drawings



**Drawing A03-02    Ground Floor Plan**



Parking Schedule - Ground

Family and Type	Description
00 Ground	
Bike Rack - Single sided (AS 2890.3)_CCN: Type	Resi Bicycle Bay
Bike Rack - Single sided (AS 2890.3)_CCN: Type: 11	
Parking Space (AS 2890.1)_CCN1: 2600 x 5400 SHORT TERM BAY	Standard Car Bay
Parking Space (AS 2890.1)_CCN1: 2600 x 5400 SHORT TERM BAY: 36	
Parking Space (AS 2890.1)_CCN: 2400 x 5400 Disabled Shared Area	Small Car Bay
Parking Space (AS 2890.1)_CCN: 2400 x 5400 Disabled Shared Area: 1	
Parking Space (AS 2890.1)_CCN: 2600 x 5400 Disabled Bay 2600	Accessible Compliant Bay
Parking Space (AS 2890.1)_CCN: 2600 x 5400 Disabled Bay 2600: 1	

primewest

Iris Residential

CAMERON CHISHOLM NICOL



- 1x1 TERR GR
- 1x1 TERR MEZZ
- AMENITIES
- CIRCULATION
- COMMERCIAL
- GYM
- SERVICES
- SERVICES
- STORES
- SUPERMARKET
- TREE RETENTION / PLANTING LEGEND
- EXISTING TREE
  - NEW TREE
  - TREE TO BE REMOVED

DEPARTMENT OF PLANNING, LANDS AND HERITAGE  
DATE: 16-Nov-2018 FILE: 08-50167-1

GENERAL ARRANGEMENT - GROUND

SCALE 1:200 (A1)

LOT 37 - MONTARIO QUARTER

PRELIMINARY

A03.02  
SK

27-04-2018