



Waste Management Plan

Middleton Beach Hotel

Prepared for Pacifica Ausglobal Albany Pty Ltd

16 October 2023

Project Number: TW21116

DOCUMENT CONTROL					
Version	Description	Date	Author	Reviewer	Approver
1.0	First Approved Release	2/08/2023	RH	DP	DP
2.0	Second Approved Release	16/10/2023	AB	DP	AB
Approval for Release					
Name	Position	File Reference			
Ann Brouwer	Project Manager – Waste Management Consultant	TW21116-02_Waste Management Plan_2.0			
Signature					
<p>Copyright of this document or any part of this document remains with Talis Consultants Pty Ltd and cannot be used, transferred or reproduced in any manner or form without prior written consent from Talis Consultants Pty Ltd.</p>					

Executive Summary

Pacifica Ausglobal Albany Pty Ltd is seeking development approval for the proposed Middleton Beach Hotel development located at Middleton Beach, Albany (the Proposal).

To satisfy the conditions of the development application the City of Albany (the City) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the City's requirements.

A summary of the bin size, numbers, collection frequency and collection method is provided in the below table.

Proposed Waste Collection Summary

Waste Type	Generation (L/week)	Bin Size (L)	Number of Bins	Collection Frequency	Collection
Refuse	32,358	1,100	Fifteen	Two times each week	Private Contractor
Recycling	9,653	1,100	Five	Two times each week	Private Contractor

A private contractor will service the Proposal onsite, directly from the Bin Storage Area. The private contractor's waste collection vehicle will enter and exit the Proposal in forward gear via Marine Drive.

Hotel management will oversee the relevant aspects of waste management at the Proposal.

Table of Contents

1	Introduction	1
1.1	Objectives and Scope	1
2	Waste Generation	2
2.1	Proposed Tenancies	2
2.2	Waste Generation Rates	2
2.3	Waste Generation Volumes	3
3	Waste Storage	4
3.1	Internal Bins and Transfer of Waste	4
3.2	Bin Sizes.....	4
3.3	Bin Storage Area Size	4
3.4	Bin Storage Area Design.....	5
4	Waste Collection	6
4.1	Bulk and Speciality Waste	7
5	Waste Management	8
6	Conclusion.....	9

Tables

Table 2-1: Waste Generation Rates	2
Table 2-2: Estimated Waste Generation.....	3
Table 3-1: Typical Bin Dimensions	4
Table 3-2: Bin Requirements for Bin Storage Area	5

Diagrams

Diagram 1: Bin Storage Area

Diagram 2: Swept Path Analysis

Figures

Figure 1: Locality Plan

1 Introduction

Pacifica Ausglobal Albany Pty Ltd is seeking development approval for the proposed Middleton Beach Hotel development located at Middleton Beach, Albany (the Proposal).

To satisfy the conditions of the development application the City of Albany (the City) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the City's requirements.

The Proposal is bordered by Middleton Beach to the north and east, Marine Drive to the south and Flinders Parade to the west, as shown in Figure 1.

1.1 Objectives and Scope

The objective of this WMP is to outline the equipment and procedures that will be adopted to manage waste (refuse and recyclables) at the Proposal. Specifically, the WMP demonstrates that the Proposal is designed to:

- Adequately cater for the anticipated volume of waste to be generated;
- Provide an adequately sized Bin Storage Area, including appropriate bins; and
- Allow for efficient collection of bins by appropriate waste collection vehicles.

To achieve the objective, the scope of the WMP comprises:

- Section 2: Waste Generation;
- Section 3: Waste Storage;
- Section 4: Waste Collection;
- Section 5: Waste Management; and
- Section 6: Conclusion.

2 Waste Generation

The following section shows the waste generation rates used and the estimated waste volumes to be generated at the Proposal.

2.1 Proposed Tenancies

The anticipated volume of refuse and recyclables is based on the number of beds at the hotel and the floor area (m²) of the tenancies at the Proposal. The Proposal consists of the following:

- Hotel Beds – 94;
- Food and Beverage 01 – 612m²;
- Retail Tenancy – 196m²;
- Hotel Reception – 108m²; and
- Hotel Gym – 45m².

2.2 Waste Generation Rates

In order to achieve an accurate projection of waste volumes for the Proposal, consideration was given to the City of Melbourne’s *Guidelines for Waste Management Plans (2021)* and the Western Australian Local Government Association’s (WALGA) *Commercial and Industrial Waste Management Plan Guidelines (2014)*.

Table 2-1 shows the waste generation rates which have been applied to the Proposal.

Table 2-1: Waste Generation Rates

Tenancy Use Type	Guideline Reference	Refuse Generation Rate	Recycling Generation Rate
Hotel Beds	Melbourne – Hotel/Motel	5L/bed/day	1L/bed/day
Food and Beverage 01	WALGA – Restaurants	660L/100m ² /day	130L/100m ² /day
Retail Tenancy	WALGA – Retail Shop > 100m ²	50L/100m ² /day	50L/100m ² /day
Hotel Reception	WALGA – Offices	10L/100m ² /day	10L/100m ² /day
Hotel Gym	WALGA – Offices	10L/100m ² /day	10L/100m ² /day

2.3 Waste Generation Volumes

Waste generation is estimated by volume in litres (L) as this is generally the influencing factor when considering bin size, numbers and storage space required.

Waste generation volumes in litres per week (L/week) adopted for this waste assessment is shown in Table 2-2. It is estimated that the Proposal will generate 32,358L of refuse and 9,653L of recyclables each week.

Table 2-2: Estimated Waste Generation

Tenancy Use Type	Number of Beds / Area (m ²)	Waste Generation Rate	Waste Generation (L/week)
Refuse			
Hotel Beds	94 Beds	5L/bed/day	3,290
Food and Beverage 01	436m ²	660L/100m ² /day	28,274
Retail Tenancy	196m ²	50L/100m ² /day	686
Hotel Reception	108m ²	10L/100m ² /day	76
Hotel Gym	45m ²	10L/100m ² /day	32
Total			32,358
Recyclables			
Hotel Beds	94 Beds	1L/bed/day	3,290
Food and Beverage 01	436m ²	130L/100m ² /day	5,569
Retail Tenancy	196m ²	50L/100m ² /day	686
Hotel Reception	108m ²	10L/100m ² /day	76
Hotel Gym	45m ²	10L/100m ² /day	32
Total			9,653

3 Waste Storage

Waste materials generated within the Proposal will be collected in the bins located in the Bin Storage Area, as shown in Diagram 1, and discussed in the following sub-sections.

Note: the waste generation volumes are best practice estimates and the number of bins to be utilised represents the maximum requirements once the Proposal is fully operational. Bin requirements and collection frequencies may be impacted as the development becomes operational and the nature of the tenants and waste management requirements are known.

3.1 Internal Bins and Transfer of Waste

To promote positive recycling behaviour and maximise diversion from landfill, smaller internal bins will be available throughout the Proposal in each of the hotel rooms and each of the commercial tenancies for the source separation of refuse and recycling.

These internal bins will be collected by the staff/cleaners and transferred to the Bin Storage Area for consolidation into the appropriate bins, as required. The transfer method of internal bins is typically an internal management decision, although could involve the internal bins/lined contents being placed on a trolley and wheeled through the carpark for disposal into the appropriate bins in the Bin Storage Area. Lifting the internal bins/contents into the larger 1,100L bins can be done manually and if desired two staff/cleaners could assist.

All bins will be colour coded and labelled in accordance with Australian Standards (AS 4123.7) to assist visitors, staff and cleaners to dispose of their separate waste materials in the correct bins.

3.2 Bin Sizes

Table 3-1 gives the typical dimensions of standard bins sizes that may be utilised at the Proposal. It should be noted that these bin dimensions are approximate and can vary slightly between suppliers.

Table 3-1: Typical Bin Dimensions

Dimensions (m)	Bin Sizes		
	240L	660L	1,100L
Depth	0.730	0.780	1.070
Width	0.585	1.260	1.240
Height	1.060	1.200	1.330

Reference: SULO Bin Specification Data Sheets

3.3 Bin Storage Area Size

To ensure sufficient area is available for storage of the bins, the amount of bins required for the Bin Storage Area was modelled utilising the estimated waste generation in Table 2-2, bin sizes in Table 3-1 and based on collection of refuse and recyclables two times each week.

Based on the results shown in Table 3-2, the Bin Storage Area has been sized to accommodate:

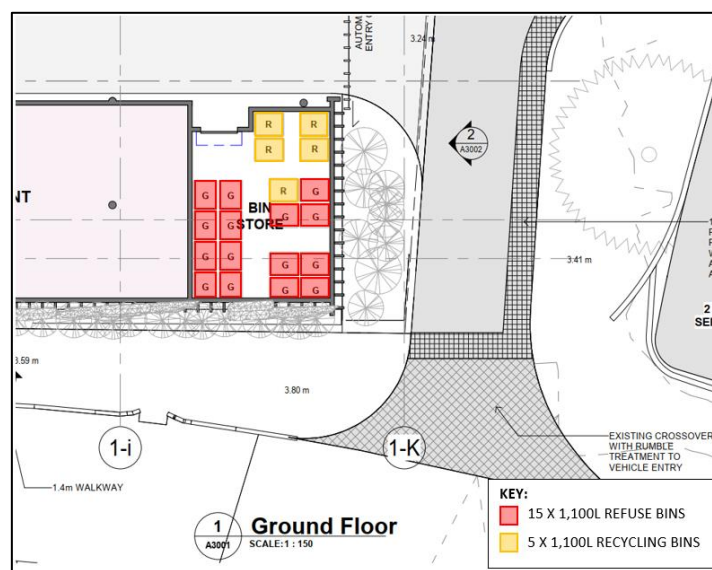
- Fifteen 1,100L refuse bins; and
- Five 1,100L recycling bins.

Table 3-2: Bin Requirements for Bin Storage Area

Waste Stream	Waste Generation (L/week)	Number of Bins Required		
		240L	660L	1,100L
Refuse	32,358	68	25	15
Recycling	9,653	21	8	5

The configuration of these bins within the Bin Storage Area is shown in Diagram 1. It is worth noting that the number of bins and corresponding placement of bins shown in Diagram 1 represents the maximum requirements assuming two collections each week of refuse and recyclables.

Diagram 1: Bin Storage Area



3.4 Bin Storage Area Design

The design of the Bin Storage Area will take into consideration:

- Smooth impervious floor sloped to a drain connected to the sewer system;
- Taps for washing of bins and Bin Storage Area;
- Adequate aisle width for easy manoeuvring of bins;
- Doors to the Bin Storage Area self-closing and vermin proof;
- Doors to the Bin Storage Area wide enough to fit bins through;
- Ventilated to a suitable standard;
- Appropriate signage;
- Undercover where possible and be designed to not permit stormwater to enter into the drain;
- Located behind the building setback line;
- Bins not to be visible from the property boundary or areas trafficable by the public; and
- Bins are reasonably secured from theft and vandalism.

Bin numbers and storage space within the Bin Storage Area will be monitored by hotel management during the operation of the Proposal to ensure that the number of bins and collection frequency is sufficient.

4 Waste Collection

A private waste collection contractor (likely Cleanaway) will service the Proposal and provide fifteen 1,100L bins for refuse and five 1,100L bins for recyclables.

The private contractor will collect refuse and recyclables twice each week utilising a rear loader waste collection vehicle.

The private contractor’s rear loader waste collection vehicle will service the bins onsite, directly from the Bin Storage Area. The private contractor’s rear loader waste collection vehicle will travel with left hand lane traffic flow on Marine Drive and pull up directly opposite the Bin Storage Area for servicing, as shown in Diagram 2.

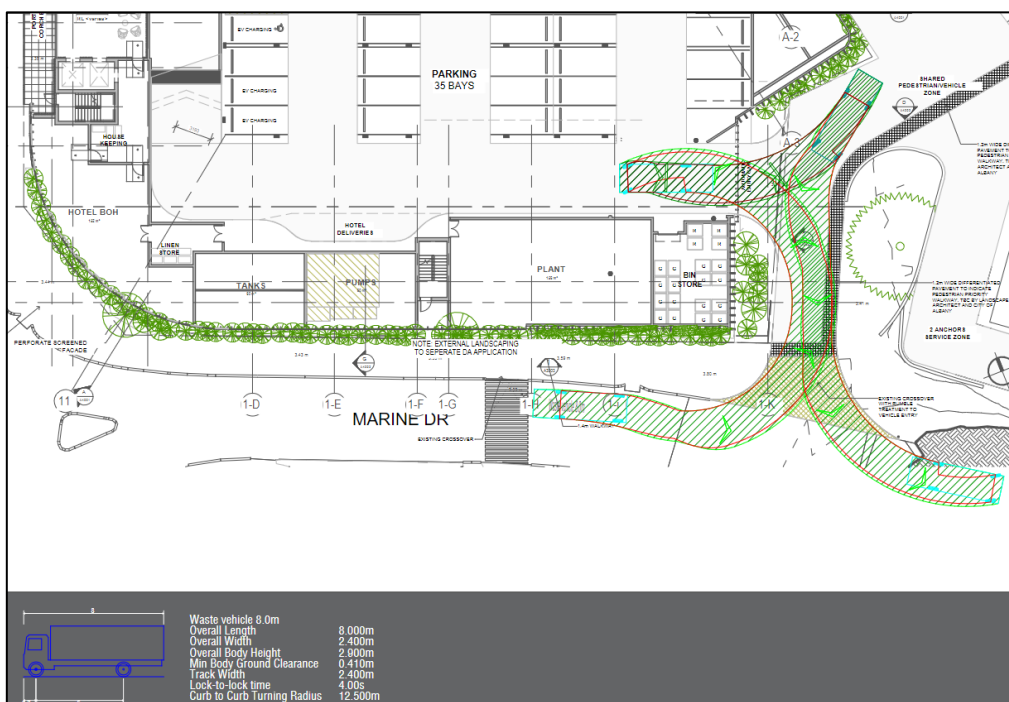
Private contractor’s staff will ferry bins to and from the rear loader waste collection vehicle and the Bin Storage Area during servicing. The private contractor will be provided with key/PIN code access to the Bin Storage Area and security access gates to facilitate servicing, if required.

Once servicing is complete the private contractor’s rear loader waste collection vehicle will exit in a forward motion, turning onto Marine Drive moving with traffic flow, as shown in Diagram 2.

The above servicing method will preserve the amenity of the area by removing the requirement for bins to be presented to the street on collection days. In addition, servicing of bins onsite will reduce the noise generated in the area during collection. Noise from waste vehicles must comply with the Environmental Protection (Noise) Regulations and such vehicles should not service the site before 7.00am or after 7.00pm Monday to Saturday, or before 9.00am or after 7.00pm on Sundays and Public Holidays.

The ability for the private contractor’s rear loader waste collection vehicle to access the Proposal in a safe manner has been assessed by KCTT and further information is included within their Traffic Impact Assessment.

Diagram 2: Swept Path Analysis



4.1 Bulk and Speciality Waste

Adequate space may be allocated throughout the Proposal for placement of cabinets/containers for collection and storage of specialty wastes that are unable to be disposed of within the bins in the Bin Storage Area, such as:

- Batteries & E-wastes;
- Used cooking oil;
- Cleaning chemicals; and
- Commercial light globes.

These materials will be removed from the Proposal once sufficient volumes have been accumulated to warrant disposal.

Larger bulk items such as refurbishment wastes from fit outs, mattresses or white goods will be removed on demand by external contractors for recycling or disposal at an appropriate facility. These could be collected promptly utilising the hotel delivery loading bays on the ground floor or a temporary skip bin.

Bulk and specialty waste collection will be monitored by the hotel management who will organise their collection or transport to the appropriate waste facility, as required.

5 Waste Management

Hotel management will be engaged to complete the following tasks:

- Monitoring and maintenance of bins and the Bin Storage Area;
- Cleaning of bins and Bin Storage Area, when required;
- Rotating full and empty bins within the Bin Storage Area;
- Ensure all staff and cleaners at the Proposal are made aware of this WMP and their responsibilities thereunder;
- Monitor staff and cleaner behaviour and identify requirements for further education and/or signage;
- Monitor bulk and speciality waste accumulation and assist with its removal, as required;
- Regularly engage with staff and cleaners to develop opportunities to reduce waste volumes and increase resource recovery; and
- Regularly engage with the private contractors to ensure efficient and effective waste service is maintained.

6 Conclusion

As demonstrated within this WMP, the Proposal provides a sufficiently sized Bin Storage Area for storage of refuse and recyclables, based on the estimated waste generation volumes and suitable configuration of bins. This indicates that an adequately designed Bin Storage Area has been provided, and collection of refuse and recyclables can be completed from the Proposal.

The above is achieved using:

- Fifteen 1,100L refuse bins, collected two times each week; and
- Five 1,100L recycling bins, collected two times each week.

A private contractor will service the Proposal onsite, directly from the Bin Storage Area. The private contractor's waste collection vehicle will enter and exit the Proposal in forward gear via Marine Drive.

Hotel management will oversee the relevant aspects of waste management at the Proposal.

Figures

Figure 1: Locality Plan



LEGEND

- Site Boundary
- Cadastr**
- Crown Allotment
- Freehold
- Road
- Easement
- Reserve

© Talis Consultants Pty Ltd ("Talis") Copyright in the drawings, information and data recorded in this document ("the information") is the property of Talis. This document and the information may not be used, transferred or reproduced in whole or part for any purpose other than that which it is supplied by Talis without written consent. Talis makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.



LOCALITY

Middleton Beach Hotel
Middleton Beach, WA 6330

Pacifica Ausglobal
Albany Pty Ltd



Prepared: E Jackson	Date: 2/08/2023
Reviewed: D Patel	Revision: A
Project: TW21116	



Figure 01

Data source: Roads, Cadastre - Landgate, 2023. Imagery: Nearmaps, 2023.



Assets | Engineering | Environment | Noise | Spatial | Waste

Talis Consultants
ABN 85 967 691 321

HEAD OFFICE

604 Newcastle Street,
Leederville
Western Australia 6007

PO Box 454,
Leederville
Western Australia 6903

NSW OFFICES

Nowra

76 Bridge Road, Nowra
New South Wales, 2541

PO Box 1189, Nowra
New South Wales, 2541

Newcastle

58 Cleary Street, Hamilton
New South Wales, 2303

P: 1300 251 070

E: enquiries@talisconsultants.com.au