11 February 2021



1300 251 070 604 Newcastle St Leederville WA 6007 PO Box 454 Leederville WA 6903 info@talisconsultants.com.au

www.talisconsultants.com.au

City of Melville 10 Almondbury Road Booragoon WA 6154

To Whom it May Concern

RE: WMP Technical Note for Revised Planning Drawings for 55-61 Canning Beach Road, Applecross

In response to the request from the City of Melville (the City) for a Technical Note to address the changes to the revised planning drawings for 55-61 Canning Road, Applecross (the Proposal), Talis can confirm that the Proposal can accommodate the required number of bins within the Residential and Commercial Bin Storage Areas in accordance with the following design changes:

- Minor changes to number of apartments in each tower;
- Minor changes to floor areas of commercial tenancies;
- Commercial Bin Storage Area relocated adjacent to Bin Staging Area;
- Reduction in floor area for Residential Bin Storage Areas;
 - Note: Updated waste generation rates utilised for the residential apartments in accordance with the City's updated *Local Planning Policy 1.3 Waste and Recyclables Collection for Multiple Dwellings Mixed Use Developments and Non-Residential Developments* (July 2020).

Waste Generation

The anticipated volume of refuse, recyclables and FOGO is based on the number of residential apartments and the floor area (m²) of the commercial tenancies at the Proposal. The Proposal consists of the following:

- Residential Apartments:
 - Tower 1 79;
 - \circ Tower 2 72; and
 - Tower 3 73.
- Ground Floor Community Use and Commercial Tenancies:
 - Bike and Kayak Hire 73m²;
 - Health/Beauty Spa 268m²;
 - Organic Café 95m²;
 - Wine Bar $137m^2$;
 - Gourmet Burger 81m².
 - Wood Fired Pizza 81m²;
 - Café 106m²;
 - Canning Beach Road Community Hub 317m²;
 - \circ Aging in Place 28m²;
 - Men's Shed (including lounge and kitchen) 141m²;
 - Makers Studio 126m²; and
 - \circ Medical Suites 106m².



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

Tenancy Use Type	Guideline Reference	Refuse Generation Rate	Recycling Generation Rate	FOGO Generation Rate
	Re	sidential		
Residential Apartments	Multiple Dwellings		40L/week	28L/week
	Со	mmercial		
Bike and Kayak Hire	Shop (non-food) <100m ²	50L/100m ² /day	25L/100m ² /day	-
Health/Beauty Spa	Shop (non-food) >100m ²	50L/100m ² /day	50L/100m ² /day	-
Organic Café	Restaurant/Café	660L/100m ² /day	130L/100m ² /day	-
Wine Bar	Tavern/Small Bar	660L/100m ² /day	130L/100m ² /day	-
Gourmet Burger	Restaurant/Café	660L/100m ² /day	130L/100m ² /day	-
Wood Fired Pizza	Restaurant/Café	660L/100m ² /day	130L/100m ² /day	-
Café	Restaurant/Café	660L/100m ² /day	130L/100m ² /day	-
Canning Beach Road Community Hub	Office	10L/100m ² /day	10L/100m ² /day	-
Aging in Place	Office	10L/100m ² /day	10L/100m ² /day	-
Men's Shed	Shop (non-food) >100m ²	50L/100m ² /day	50L/100m ² /day	-
Makers Studio	Office	10L/100m ² /day	10L/100m ² /day	-
Medical Suites	Consulting Room	10L/100m ² /day	10L/100m ² /day	-

Table 1: Waste Generation Rates

The anticipated waste volumes (L/week) to be generated by the Proposal are shown in Table 2.

Table 2: Anticipated	Waste Generation
----------------------	-------------------------

Use Type	Anticipated Refuse (L/Week)	Anticipated Recycling (L/Week)	Anticipated FOGO (L/Week)			
Residential						
Tower 1	5,135	3,160	2,212			
Tower 2	4,680	2,880	2,016			
Tower 3	4,745	2,920	2,044			
	Co	mmercial				
Bike and Kayak Hire	256	128	-			
Health/Beauty Spa	938	938	-			
Organic Café	4,389	865	-			
Wine Bar	5,425	1,069	-			
Gourmet Burger	3,742	737	-			
Wood Fired Pizza	3,742	737	-			
Café	4,897	965	-			
Canning Beach Road Community Hub	159	159	-			
Aging in Place	14	14	-			
Men's Shed	494	494	-			
Makers Studio	63	63	-			
Medical Suites	53	53	-			



It is anticipated that the residential apartments from:

- Tower 1 will generate a total of 5,135L of refuse, 3,160L of recyclables and 2,212L of FOGO each week.
- Tower 2 will generate a total of 4,680L of refuse, 2,880L of recyclables and 2,016L of FOGO each week.
- Tower 3 will generate a total of 4,745L of refuse, 2,920L of recyclables and 2,044L of FOGO each week.

It is anticipated that the commercial tenancies will generate a total of 24,172L of refuse and 2,044L of recyclables each week.

Waste Storage

Residential Bin Storage Areas

Each tower at the Proposal has a Bin Storage Area for consolidating residential waste. Below displays the updated quantity of bins required for each residential tower assuming collection of refuse, recyclables and FOGO twice each week from the Proposal.

Tower 1

As shown in Table 3, the Tower 1 Bin Storage Area has been sized to accommodate:

- Two 660L refuse bins;
- Three 660L recycling bins; and
- Five 240L FOGO bins.

Table 3: Bin Requirements for Tower 1

Waste Stream	Waste Generation	Number of Bins Required			
	(L/week)	240L	660L	1,100L	
Refuse	5,135	6	2	3	
Recyclables	3,160	7	3	2	
FOGO	2,212	5	-	-	

Tower 2

As shown in Table 4, the Tower 2 Bin Storage Area has been sized to accommodate:

- Two 660L refuse bins;
- Three 660L recycling bins; and
- Five 240L FOGO bins.

Table 4: Bin Requirements for Tower 2

Waste Stream	Waste Generation	Number of Bins Required			
	(L/week)	240L	660L	1,100L	
Refuse	4,680	5	2	2	
Recyclables	2,880	7	3	2	
FOGO	2,016	5	-	-	



Tower 3

As shown in Table 5, the Tower 3 Bin Storage Area has been sized to accommodate:

- Two 660L refuse bins;
- Two 660L recycling bins; and
- Five 240L FOGO bins.

Table 5: Bin Requirements for Tower 3

Waste Stream	Waste Generation	Number of Bins Required			
	(L/week)	240L	660L	1,100L	
Refuse	4,745	4	2	1	
Recyclables	2,920	5	2	2	
FOGO	2,044	5	-	-	

Commercial Bin Storage Area

Below displays the updated quantity of bins required for the Commercial Bin Storage Area assuming collection of refuse and recyclables twice each week from the Proposal.

As shown in Table 6, the Commercial Bin Storage Area has been sized to accommodate:

- Nineteen 660L refuse bins; and
- Five 660L recycling bins.

Table 6: Bin Requirements for Commercial Bin Storage Area

Waste Stream	Waste Generation	Number of Bins Required			
	(L/week)	240L	660L	1,100L	
Refuse	24,172	51	19	11	
Recyclables	6,222	13	5	3	



Summary

As this Technical Note demonstrates, the revised planning drawings provide adequately sized Bin Storage Areas for the projected number of bins for refuse, recyclables and FOGO, based on the City's most recent waste generation rates. A summary of the projected waste generation volume, bin numbers and collection frequency are shown in Table 7.

Waste Type	Generation (L/week)	Bin Size (L)	Number of Bins	Collection Frequency	Collection		
Residential Bin Storage Area – Tower 1							
Refuse	5,135	660	2	Twice each week	City of Melville		
Recyclables	3,160	660	3	Twice each week	City of Melville		
FOGO	2,212	240	5	Twice each week	City of Melville		
		Residential Bin S	torage Area – Tow	ver 2			
Refuse	4,680	660	2	Twice each week	City of Melville		
Recyclables	2,880	660	3	Twice each week	City of Melville		
FOGO	2,016	240	5	Twice each week	City of Melville		
		Residential Bin S	torage Area – Tow	ver 3			
Refuse	4,745	660	2	Twice each week	City of Melville		
Recyclables	2,920	660	3	Twice each week	City of Melville		
FOGO	2,044	240	5	Twice each week	City of Melville		
	Commercial Bin Storage Area						
Refuse	24,172	660	19	Twice each week	City of Melville		
Recyclables	6,222	660	5	Twice each week City of Melvi			

Table 7: Waste Collection Summary

If you require any further information, please do not hesitate to contact the undersigned.

Yours sincerely

Dilan Patel Waste Management Consultant TALIS CONSULTANTS e – <u>dilan.patel@talisconsultants.com.au</u> d – (08) 6557 5245

Version	Description		Date	Author	Reviewer	Approver
1a	Release to Client		11/02/21	DP	JW	JW
Approva	Approval for Release					
Name	me Position File Reference					
loppi M/r	2 0	Waste Management	TW18074 - Technical Note - 55-61 Canning			
Jenni Wroe Con		Consultant	Beach Road	l, Applecross	.1a	



Signature



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.