Operational Waste Management Plan



THE FARM

BESSBOROUGH
BLACKROCK
CORK

DECEMBER 2025

commissioned by estuary view enterprises 2020 ltd.

SHiPSEYBARRY

contents

INTRODUCTIOIN Page 4

PLANNING AND POLICY Page 7

WASTE CALCULATION & ASSUMPTIONS Page 9

WASTE DISPOSAL WITHIN DEVELOPMENT Page 17

WASTE COLLECTION Page 22

REFUSE ROOMS & INVENTORY Page 24

1. INTRODUCTION

Estuary View Enterprises 2020 Limited, intend to apply for planning permission for a Large-scale Residential Development (LRD) at Bessborough, Ballinure, Blackrock, Cork.

The proposed development will consist of:

the demolition of 10 no. existing agricultural buildings /sheds and log cabin residential structure and the construction of a residential development of 140 no. residential apartment units over 2 no. retained and repurposed farmyard buildings (A & B) with single storey extension and 3 no. new blocks of 3-5 storeys in height, with supporting resident amenity facilities, crèche, and all ancillary site development works. The proposed development includes 140 no. apartments to be provided as follows: 70 no. 1-bedroom, 12 no. 2-bedroom (3 person), 57 no. 2-bedroom (4 person) and 1 no. 3-bedroom. Block A and Block B will be retained for resident amenities.

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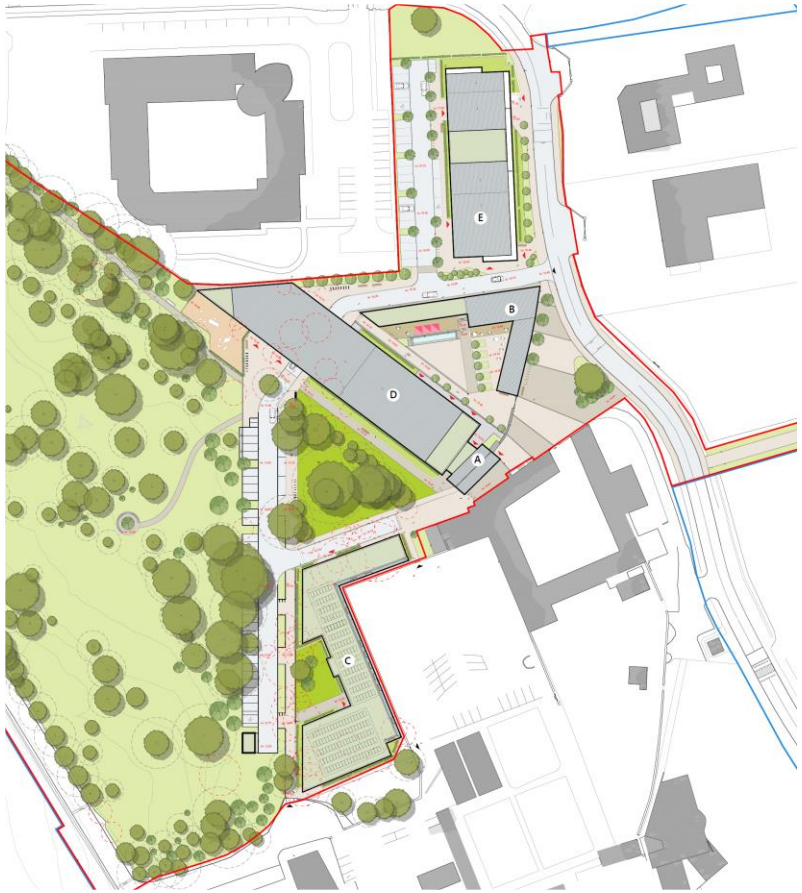


Figure 1: Phase 2- The Farm- Bessborough | Extract from Site Plan | NTS

The proposal includes a new pedestrian/cycle bridge over the adjoining Passage West Greenway to the east, connecting into the existing down ramp from Mahon providing direct access to the greenway and wider areas, as well as new pedestrian access to Bessborough Estate to the north including upgrades to an existing pedestrian crossing on Bessboro Road. The proposed development provides for outdoor amenity areas including publicly accessible parkland, landscaping, surface car parking, bicycle parking, bin stores, substation, public lighting, roof mounted solar panels, wastewater infrastructure including new inlet sewer to the Bessborough Wastewater Pumping Station to the west, surface water attenuation, water utility services and all ancillary site development works. Vehicular access to the proposed development will be provided via the existing access road off the Bessboro Road. Part of the proposed development is situated within the curtilage of Bessborough House which is a Protected Structure (Reference: RPS 490).



Figure 2: Phase 2- The Farm- Bessborough | Aerial View



Figure 3: Phase 2- The Farm- Bessborough | View from Street Level

Both residential and ancillary waste will be generated by the scheme. All required bins and associated equipment will be stored in designated and segregated areas local to each building. Each refuse room is accessible to upper apartment by central stair and lift cores.

Adequate provisions have been made to facilitate the disposal of dry mixed recyclables, residual waste, organic waste, glass and waste electrical and electronic equipment (WEEE). A standard 60" vertical baler is also provided on site for general use.

2. PLANNING AND POLICY

The Farm, *Bessborough*, adheres to Cork City Council (Segregation, Storage and Presentation of Household and Commercial Waste) Bye-Laws, 2019. The Cork City Council's Waste Bye-Laws from 2019 are still the primary regulations governing household & commercial waste segregation, storage, and presentation, with active enforcement and information campaigns continuing .

To ensure all citizens dispose of their waste by using an authorised waste contractor or by taking it to an authorised waste facility or by sharing bins by written agreement.

- To maximise the use of Wheelbins and limit (by designation by Cork City Council) the areas where bags can be presented.
- To define how wheelbins are to be presented.
- To ensure segregation of waste at source.
- Where wheelbins or branded bags, purchased from authorised waste collectors, are not used that documentation/receipts are kept to demonstrate proper disposal of waste.
- To restrict the storage of wheelbins on public roads or footpaths.1

Storage and collection of waste will be undertaken on site in accordance with the Cork City Development Plan 2022-2028 and the standard BS 5906:2005 Waste Code of Practice.

Section 11.273 of the Development plan sets out the following guidelines related to design standards for proposed developments: "Adequate bin storage provision shall be made for the storage, segregation, and recycling of waste in residential developments. In the case of communal refuse storage provision, the collection point for refuse should be accessible both to the external collector and to the resident and be secured against illegal dumping by non-residents. These shall be well screened from public view and adequately ventilated. ."2.

1 The Cork City Council (Segregation, Storage and Presentation of Household and Commercial Waste) Bye-Laws 2019. Source: https://www.corkcity.ie/media/21ef0stj/cork-city-council-segregation-storage-and-presentation-of-household-and-commercial-waste-bye-laws-2019.pdf.
2 Cork City Development Plan 2022-2028. Section 11.227: Refuse Storage. Source: https://www.corkcity.ie/en/cork-city-development-plan/volume-1-written-statement/

The European Commission's Circular Economy Action Plan: For a Cleaner More Competitive Europe[4] was adopted in 2020, and promotes a transition towards the principles of a circular economy, facilitating the use of materials at their highest value for as long as possible and then recycling or reusing them at the end of their service life with the end result being the generation of minimal waste.

The government's Waste Management Plan for a Circular Economy- Ireland's National Waste Policy 2024- 2030[2], endorses this approach and aims to shift the focus of waste management away from waste disposal and treatment to ensure that materials and products remain in productive use for longer. This is aimed at preventing waste and supporting reuse through a policy framework that discourages the wasting of resources and rewards circularity.

Currently, Cork City is part of the Southern Waste Region. The strategic vision of the Southern Region Waste Management Plan 2015-2021 is to rethink our approach to managing waste, by viewing our waste streams as valuable material resources, leading to a healthier environment and sustainable commercial opportunities for our economy. [3]

Particular emphasis is placed on preventing and designing out waste at the initial stage of any activity, thus achieving the highest level of the waste hierarchy, namely waste prevention.

The Southern Region Waste Management Office has commenced the process of drafting the next Waste Management Plan.[4] This proposal supports the sustainable management of waste in line with the objectives of the Southern Region Waste Management Plan 2015-2021 and its successor.

1 The European Commission's Circular Economy Action Plan: For a Cleaner More Competitive Europe. Source: https://ec.europa.eu/environment/circular-economy/. Accessed 21-03-2022.
2 A Waste Action Plan for a Circular Economy: Ireland's National Waste Policy 2020-2025. Source: https://www.gov.ie/en/publication/4221c-waste-action-plan-for-a-circular-economy/. Accessed 21-03-2022.
3 Southern Region Waste Management Plan 2015 – 2021. Source: http://southernwasteregion.ie/content/southern-region-waste-management-plan-2015-2021-associated-reports. Accessed 21-03-2022.
4 Ibid.



Figure 3: The Waste Hierarchy[1]

This proposal acknowledges that policies and objectives in relation to waste management in Cork City are reflective of overarching EU, National and Regional policy and legislation.

The European Commission adopted the new circular economy action plan (CEAP) in March 2020. It is one of the main building blocks of the European Green Deal, Europe's new agenda for sustainable growth. It is also a prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss. Measures that will be introduced under the new action plan aim to:

- make sustainable products the norm in the EU
- empower consumers and public buyers
- focus on the sectors that use most resources and where the potential for circularity is high such as: electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, food, water and nutrients
- ensure less waste
- make circularity work for people, regions and cities
- lead global efforts on circular economy[2]

This Waste Management Plan is assembled in accordance with the amended Planning and Development Act 2000 and Section 22(10A) of the Waste Management Acts 1996-2008 as the objectives for waste recovery and disposal facilities within the development are outlined.

1 Waste Prevention and Management. Source: https://ec.europa.eu/environment/green-growth/waste-prevention-and-management. Accessed 21-03-2022.
2 Circular Economy Action Plan. Source: https://ec.europa.eu/environment/strategy/circular-economy-action-plan_en#ecl-inpage-872 Accessed 21-03-2022.

3. WASTE CALCULATION

ASSUMPTIONS

- Occupancy rates are assumed to be 1 person per studio apartment, 2 persons per one bed apartments, 4 persons per 2 bed apartment and 6 persons per 3 bed apartment.

- Household waste will be source separated into recyclables, residual, and organic wastes. Wheeled bins will be available in waste storage rooms also for WEEE and waste glass.

- It is assumed that approximately 60% of waste generated will be dry mixed recyclables. 30% of waste generated will be residual waste, and 10% of waste generated will be organic waste. The waste management system will be flexible to allow for increases in the proportion of source segregated recyclables and reduction of residual wastes in the future. This includes the European Commission's 70% target for re-use and recycling of waste by 2030.[1]

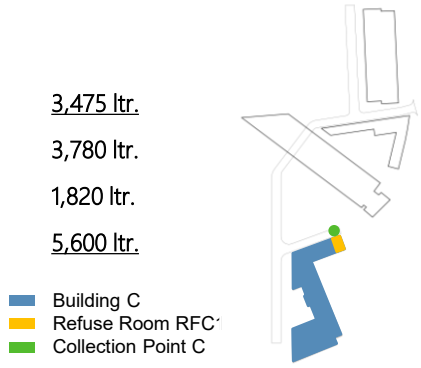
- Once weekly waste collection per waste type of residential & other waste is assumed for the purpose of these calculations.

- It is assumed that all waste will be delivered by householders to communal waste stores. Communal waste rooms will be provided on the ground floor of each apartment building block
- The EPA reported a household waste generation rate per capita of 330kg per annum for 2019.
- Density of 0.21 tonnes/m3 or 0.21 tonnes/1000 litres for waste calculations.

1 Towards a Circular Economy. Source: https://ec.europa.eu/commission/presscorner/detail/el/MEMO_14_450. Accessed 21-03-2022.
2 Household Waste Statistics for Ireland. Source: https://www.epa.ie/publications/monitoring--assessment/waste/national-waste-statistics/Household-Waste-2017-data.pdf. Accessed 21-03-2022.

CHECK***

Waste Type	Residential	Refuse Room No.	RFC1	Waste Estimation (Recycling, Residual, Organic)	3,475 ltr.
Building	C	Refuse Room Area	37.0m²	Waste Provision (Recycling, Residual, Organic)	3,780 ltr.
No. Apartments	34	1100ltr. Bins Provided	4	Additional Provisions (Glass, WEEE)	1,820 ltr.
Collection Point	C	240ltr. Bins Provided	5	Total Provisions	5,600 ltr.



Municipal Solid Waste (MSW) Estimation							
Apt Type	Occupancy per apt.	No. of apts	Total population	Waste/annum* (kg)	Waste/annum** (m^3)	Waste/week (m^3)	Waste/week (ltr)
1 BED 2P	2	9	18	5,940	28.29	0.54	544
2 BED 3P	3	3	9	2,970	14.14	0.27	272
2 BED 4P	4	22	88	29,040	138.29	2.66	2659
3 BED 6P	6	0	0	0	0.00	0.00	0
	Total	**34**	**115**	**37,950**	**180.71**	**3.48**	**3475**

Assumptions

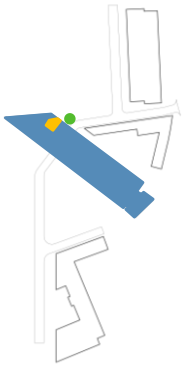
* *330kg/person/annum*

** *210kg/m³* *=waste density*

WASTE CATEGORY SPLIT					
Waste Type	%	Waste/week (ltr)	No. 1100ltr bins required	No. 240ltr bins required	Total Waste Provision (ltr)
Municipal Solid Waste (MSW)	100%	3475			
Dry mixed recyclables	60%	2085	2		2200
Residual Waste	30%	1043	1		1100
Organic Waste	10%	348		2	480
		Subtotal	3	2	3780
Additional Waste Provisions					
Glass Recycling				3	720
WEEE			1		1100
		Subtotal:	1	3	1820
		Total:	**4**	**5**	**5600**

CHECK***

Waste Type	Residential	Refuse Room No.	RFD1	Waste Estimation (Recycling, Residual, Organic)	4,775 ltr.
Building	D	Refuse Room Area	39.1m²	Waste Provision (Recycling, Residual, Organic)	5,980 ltr.
No. Apartments	58	1100ltr. Bins Provided	6	Additional Provisions (Glass, WEEE)	1,820 ltr.
Collection Point	D	240ltr. Bins Provided	5	Total Provisions	7,800 ltr.



Municipal Solid Waste (MSW) Estimation							
Apt Type	Occupancy per apt.	No. of apts	Total population	Waste/annum* (kg)	Waste/annum** (m^3)	Waste/week (m^3)	Waste/week (ltr)
1 BED 2P	2	34	68	22,440	106.86	2.05	2055
2 BED 3P	3	6	18	5,940	28.29	0.54	544
2 BED 4P	4	18	72	23,760	113.14	2.18	2176
3 BED 6P	6	0	0	0	0.00	0.00	0
	Total	**58**	**158**	**52,140**	**248.29**	**4.77**	**4775**

Assumptions

* *330 kg/person/annum*

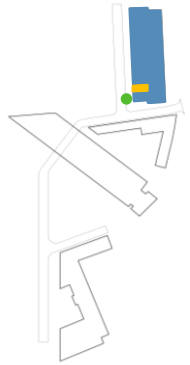
** *210 kg/m³* *=waste density*

WASTE CATEGORY SPLIT					
Waste Type	%	Waste/week (ltr)	No. 1100ltr bins required	No. 240ltr bins required	Total Waste Provision (ltr)
Municipal Solid Waste (MSW)	100%	4775			
Dry mixed recyclables	60%	2865	3		3300
Residual Waste	30%	1432	2		2200
Organic Waste	10%	477		2	480
		Subtotal	5	2	5980

Additional Waste Provisions				
Glass Recycling			3	720
WEEE		1		1100
	Subtotal:	1	3	1820
	Total:	**6**	**5**	**7800**

CHECK***

Waste Type	Residential	Refuse Room No.	RFE1	Waste Estimation (Recycling, Residual, Organic)	4,140 ltr.
Building	E	Refuse Room Area	23.4m²	Waste Provision (Recycling, Residual, Organic)	5,980 ltr.
No. Apartments	48	1100ltr. Bins Provided	6	Additional Provisions (Glass, WEEE)	1,820 ltr.
Collection Point	E	240ltr. Bins Provided	5	Total Provisions	7,800 ltr.



Municipal Solid Waste (MSW) Estimation							
Apt Type	Occupancy per apt.	No. of apts	Total population	Waste/annum* (kg)	Waste/annum** (m^3)	Waste/week (m^3)	Waste/week (ltr)
1 BED	2	27	54	17,820	84.86	1.63	1632
2 BED	3	3	9	2,970	14.14	0.27	272
2 BED	4	17	68	22,440	106.86	2.05	2055
3 BED	6	1	6	1,980	9.43	0.18	181
	Total	**48**	**137**	**45,210**	**215.29**	**4.14**	**4140**

Assumptions

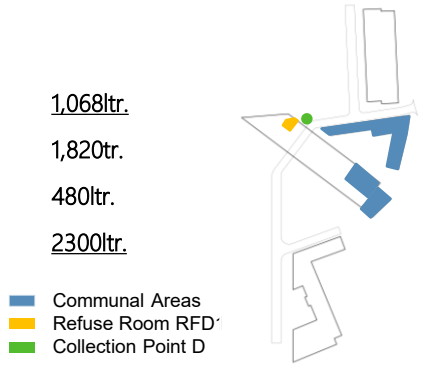
* *330 kg/person/annum*

** *210 kg/m³* *=waste density*

WASTE CATEGORY SPLIT					
Waste Type	%	Waste/week (ltr)	No. 1100ltr bins required	No. 240ltr bins required	Total Waste Provision (ltr)
Municipal Solid Waste (MSW)	100%	4140			
Dry mixed recyclables	60%	2484	3		3300
Residual Waste	30%	1242	2		2200
Organic Waste	10%	414		2	480
		Subtotal:	5	2	5980

Additional Waste Provisions				
Glass Recycling			3	720
WEEE		1		1100
	Subtotal:	1	3	1820
	Total:	**6**	**5**	**7800**

Waste Type	Ancillary	Refuse Room No.	RFD1	Waste Estimation (Recycling, Residual, Organic)	1,068ltr.
Building	D	Refuse Room Area	39.1m²	Waste Provision (Recycling, Residual, Organic)	1,820tr.
Total Area	565.1m²	1100ltr. Bins Provided	1	Additional Provisions (Glass, WEEE)	480ltr.
Collection Point	D	240ltr. Bins Provided	5	Total Provisions	2300ltr.



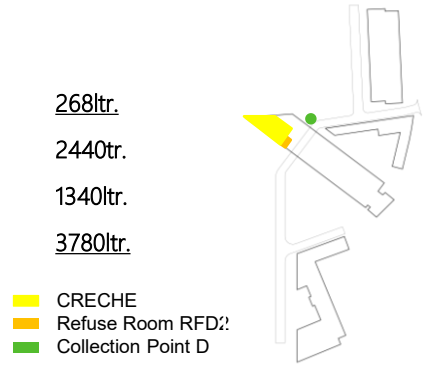
Municipal Solid Waste (MSW) Estimation				
Ancillary Use	day output (ltrs/100m2/day)	Area	operation days	Waste/week (ltr)
LOUNGE 1+LOBBY (BUILDING D)	27	113.3	7	214.137
STAFF ROOM + CONCIERGE (BUILDING D)	27	14.1	7	26.649
FUNCTION ROOM (BUILDING A)	27	70.1	7	132.489
LIBRARY+COMMUNAL WORKSPACE+SUN LOUNGE (BUILDING B)	27	367.6	7	695
			Total:	1068

WASTE CATEGORY SPLIT					
Waste Type	%	Waste/week (ltr)	No. 1100ltr bins required	No. 240ltr bins required	Total Waste Provision (ltr)
Municipal Solid Waste (MSW)	100%	1068			
Dry mixed recyclables	60%	641	1		1100
Residual Waste	30%	320	0	2	480
Organic Waste	10%	107		1	240
		Subtotal	1	3	1820

Additional Waste Provisions					
Glass Recycling				2	480
		Subtotal:	0	2	480
		Total:	**1**	**5**	**2300**

210 kg / 1000 ltr = waste density

Waste Type	Ancillary	Refuse Room No.	RFD2	Waste Estimation (Recycling, Residual, Organic)	268ltr.
Building	D	Refuse Room Area	24.2m²	Waste Provision (Recycling, Residual, Organic)	2440tr.
Total Area	236 m²	1100ltr. Bins Provided	3	Additional Provisions (Glass, WEEE)	1340ltr.
Collection Point	D	240ltr. Bins Provided	2	Total Provisions	3780ltr.



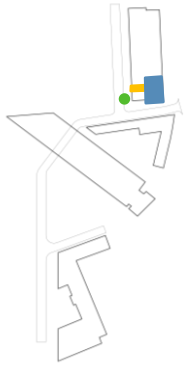
Municipal Solid Waste (MSW) Estimation					
Ancilliary Use	day output (ltrs/100m2/day)	No. Children	operation days	Waste/week (kg)	Waste/week (ltr)
CRECHE	450	25	5	56.25	267.86

WASTE CATEGORY SPLIT					
Waste Type	%	Waste/week (ltr)	No. 1100ltr bins required	No. 240ltr bins required	Total Waste Provision (ltr)
Municipal Solid Waste (MSW)	100%	268			
Dry mixed recyclables	60%	161	1		1100
Residual Waste	30%	80	1		1100
Organic Waste	10%	27		1	240
		Subtotal	2	1	2440

Additional Waste Provisions				
Glass Recycling			1	240
WEEE		1		1100
	Subtotal:	1	1	1340
	Total:	**3**	**5**	**3780**

210 kg / 1000 ltr = waste density

Waste Type	Ancillary	Refuse Room No.	RFE1	Waste Estimation (Recycling, Residual, Organic)	475ltr.
Building	E	Refuse Room Area	23.4m²	Waste Provision (Recycling, Residual, Organic)	960tr.
Total Area	95.6 m²	1100ltr. Bins Provided	0	Additional Provisions (Glass, WEEE)	240ltr.
Collection Point	E	240ltr. Bins Provided	5	Total Provisions	1200ltr.



Municipal Solid Waste (MSW) Estimation				
Ancillary Use	day output (ltrs/100m2/day)	Area	operation days	Waste/week (ltr)
GYM	71	95.6	7	475
			Total:	475

WASTE CATEGORY SPLIT					
Waste Type	%	Waste/week (ltr)	No. 1100ltr bins required	No. 240ltr bins required	Total Waste Provision (ltr)
Municipal Solid Waste (MSW)	100%	268			
Dry mixed recyclables	60%	161		2	480
Residual Waste	30%	80		1	240
Organic Waste	10%	27		1	240
		Subtotal	0	1	960
Additional Waste Provisions					
Glass Recycling				1	240
WEEE			0		0
		Subtotal:	0	1	240
		Total:	**0**	**5**	**1200**

210 kg / 1000 ltr = waste density

4. WASTE DISPOSAL WITHIN DEVELOPMENT

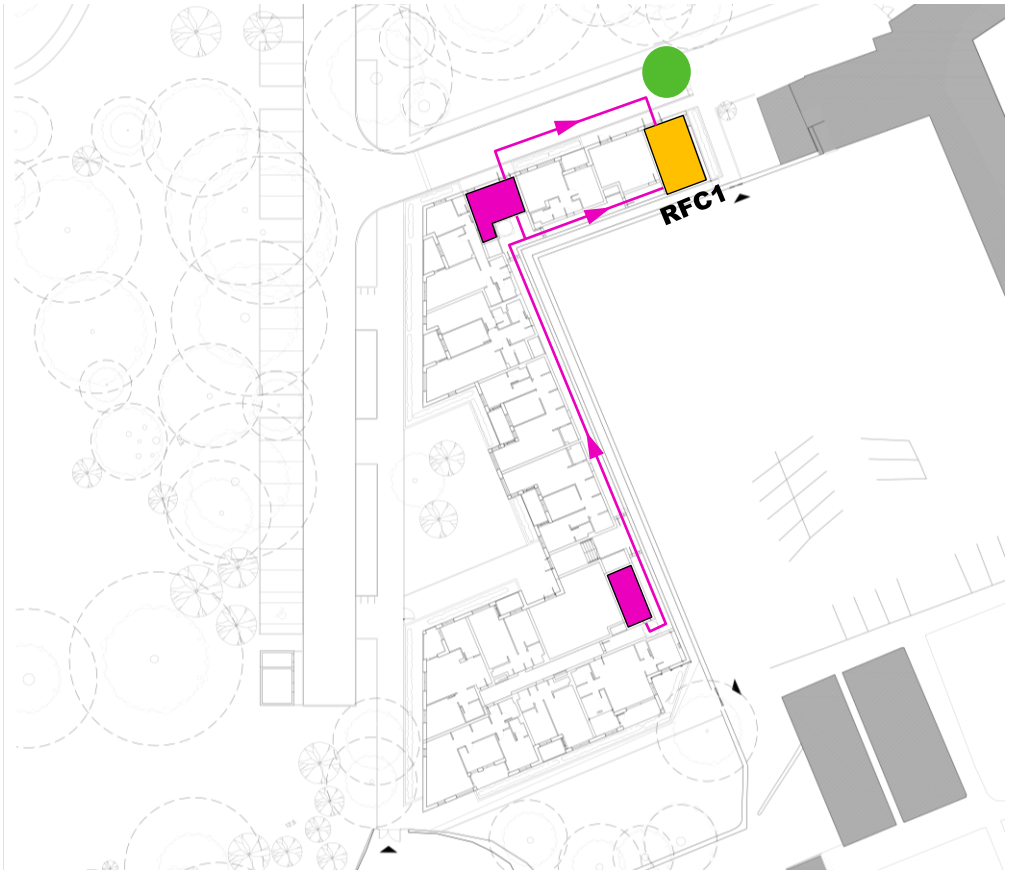


Figure 4: Ground Floor Plan highlighting Refuse Rooms + Access | NTS

RESIDENTIAL: BUILDING C

As it is assumed that all waste will be delivered by householders to ground floor level waste stores, design measures have been taken to ensure the ease and safety of this delivery.

Figure 4 & 5 illustrate the most direct path from each residential stair and lift core to the buildings designated refuse room on the ground floor level.



REFUSE ROOM

CORE LIFT & STAIR ACCESS

COLLECTION POINT

RESIDENTIAL: BUILDING D

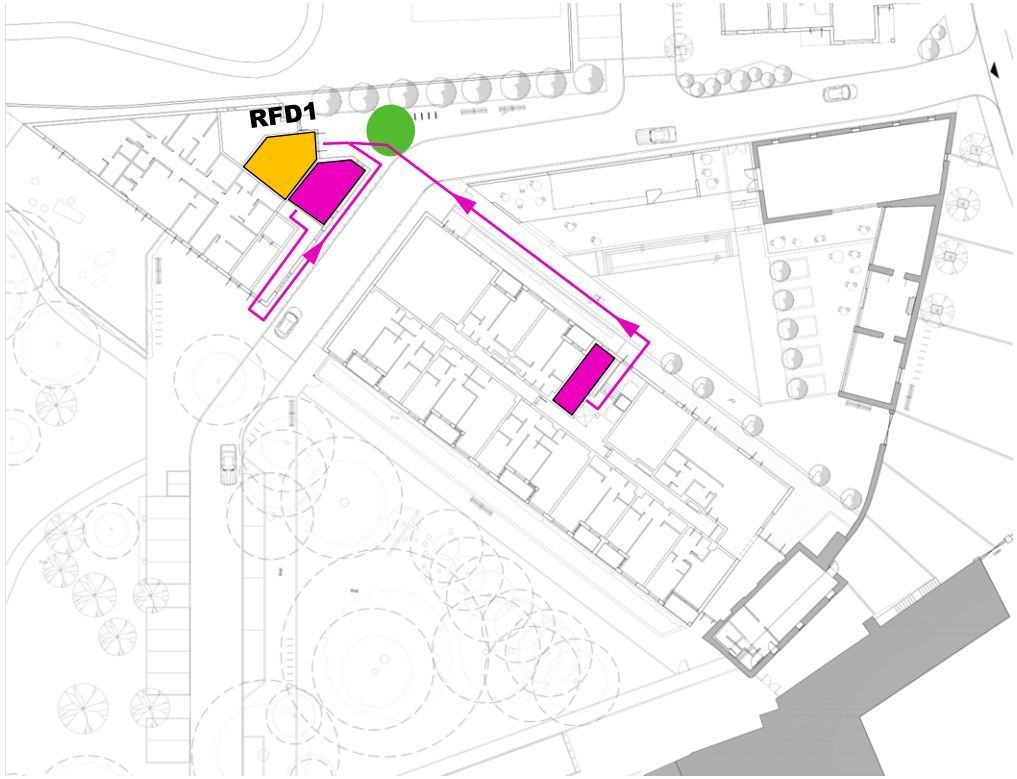


Figure 5: Ground Floor Plan highlighting Refuse Rooms + Access | NTS

REFUSE ROOM

CORE LIFT & STAIR ACCESS

COLLECTION POINT

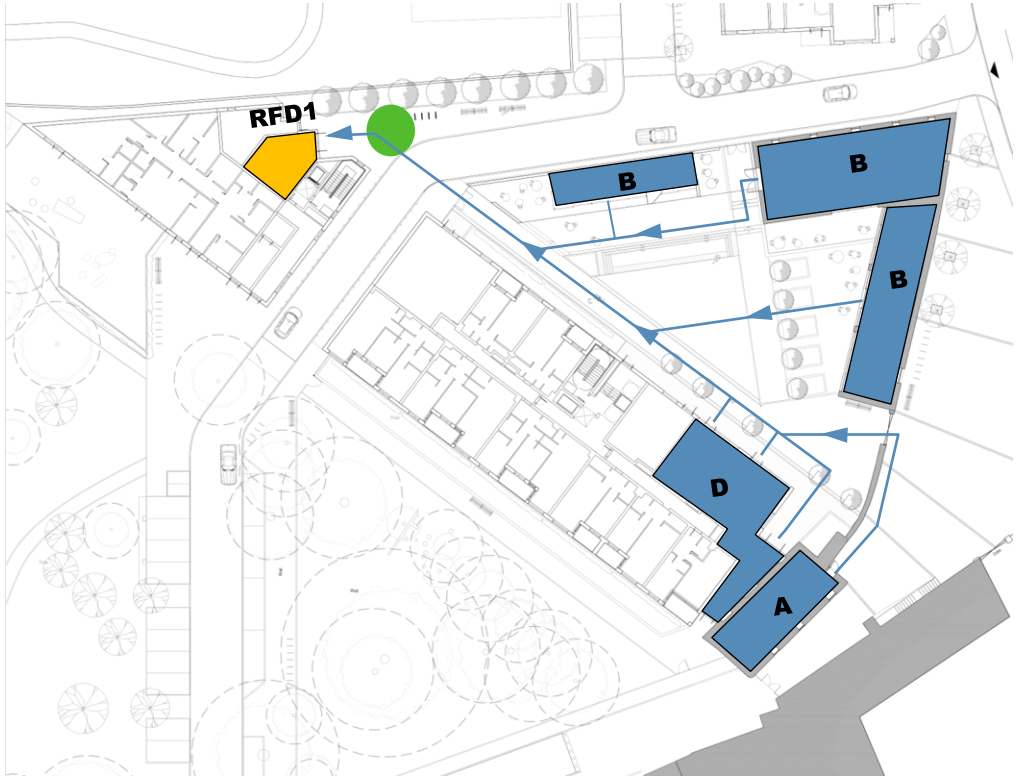


Figure 6: Ground Floor Plan highlighting Ancillaries + Associated Refuse Rooms | NTS

ANCILLARY - COMMUNAL AREAS

Refuse Room RFD1 serves all Public Amenity Areas within buildings A, B and D as well as the residents of Building D. As shown in *Figure 6*, each Ancillary space has efficient access to the Refuse Room provided.



REFUSE ROOM

PUBLIC AMENITY AREAS

COLLECTION POINT

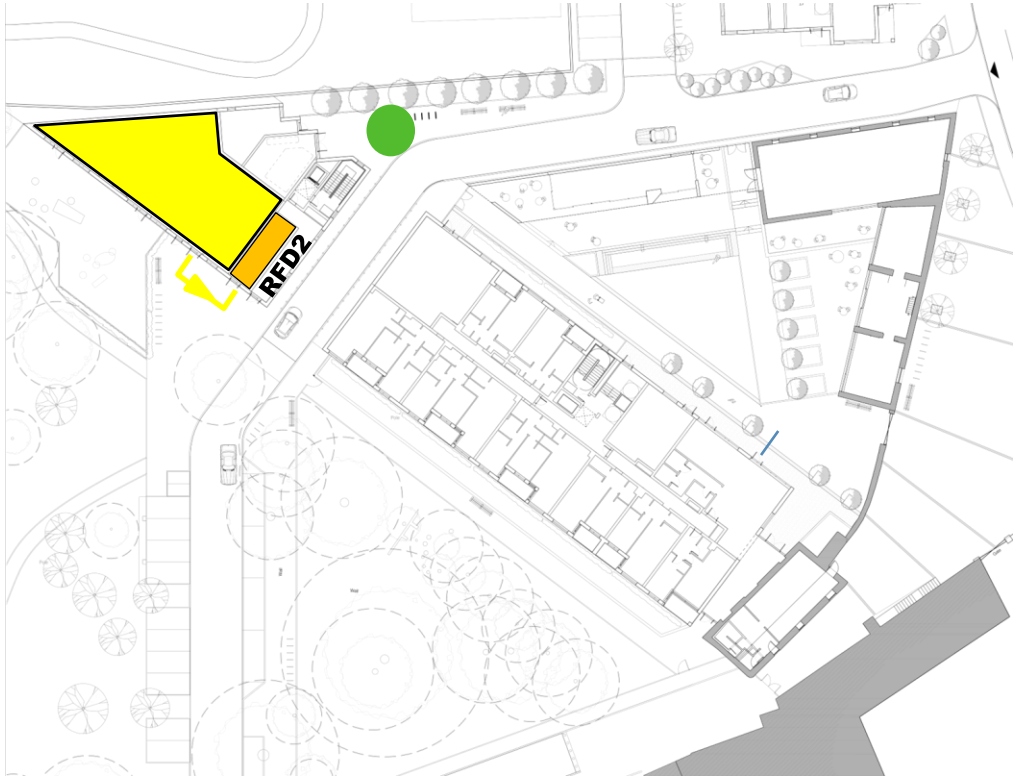


Figure 7: Ground Floor Plan highlighting Ancillaries + Associated Refuse Rooms | NTS

ANCILLARY - CRECHE

Refuse Room RFD2 serves the on-site 25 child creche. It is situated adjacent to the creche providing safe and efficient access. (*Figure 7*)

REFUSE ROOM

CRECHE

COLLECTION POINT





Figure 8: Ground Floor Plan highlighting Refuse Rooms + Access | NTS

ANCILLARY - GYM

Refuse Room RFE1 serves the residents of Building E and the resident's gym.

(Figure 5)

REFUSE ROOM

GYM

COLLECTION POINT



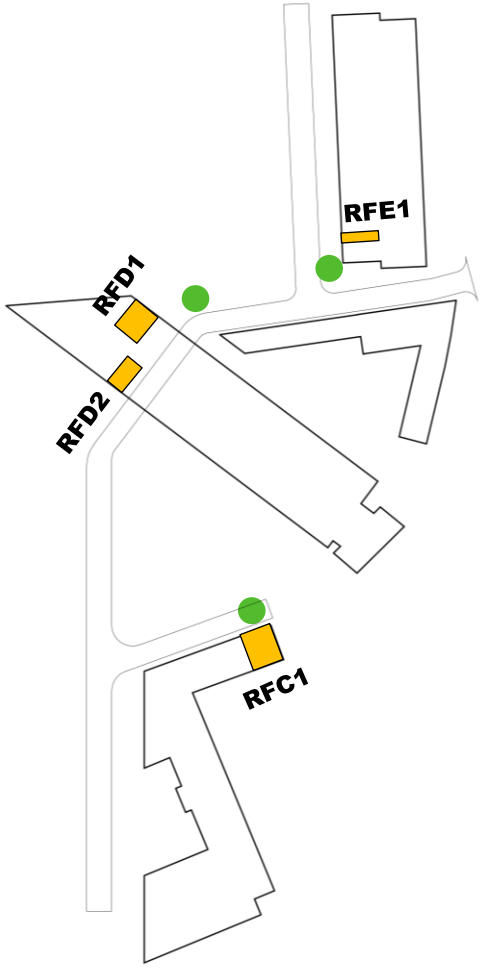


Figure 9: Ground Floor Plan highlighting all Refuse Rooms + Collection Points| NTS

COLLECTION POINTS

Each building has been allocated a refuse collection point as shown in *Figure 9*. These designated areas are easily access by each refuse rooms. A refuse truck turning zone (see Section 5), will help to prevent traffic congestion during weekly and fortnightly collections.

REFUSE ROOM

COLLECTION POINTS



5. WASTE COLLECTION

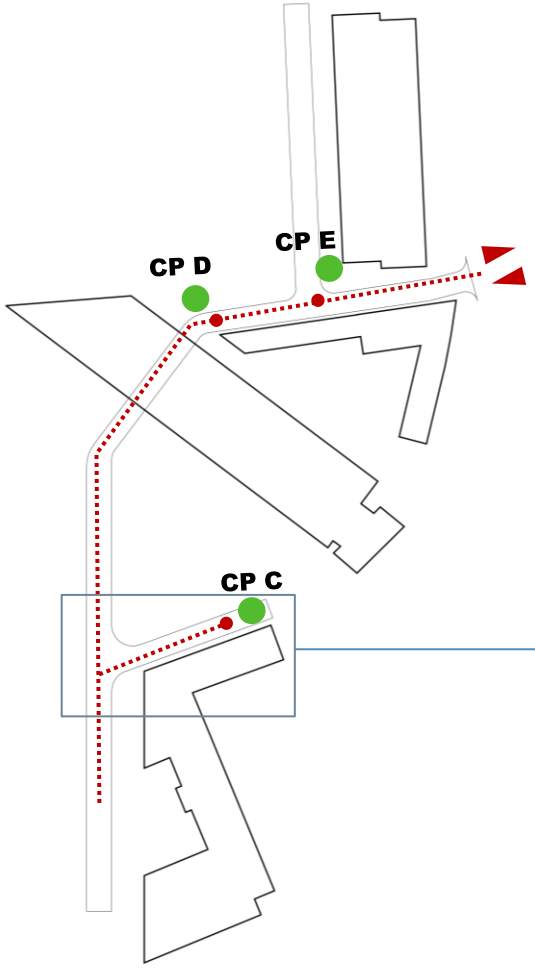
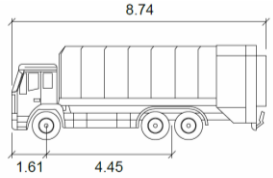


Figure 10: Ground Floor Plan Collection Points| NTS

VEHICLE MOVEMENT



Figure 7: Extract of GF displaying Refuse 3 Axle Turning Radius | NTS



REFUSE 3AXLE

	Meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0 s
Steering Angle	: 35.3 deg

REFUSE TRUCK ROUTE

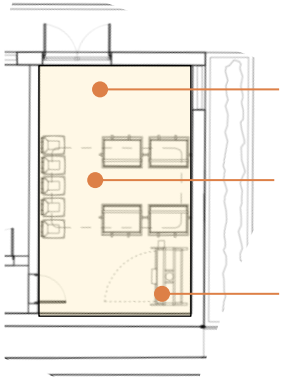
REFUSE TRUCK STOPS

COLLECTION POINTS

6. REFUSE ROOMS AND INVENTORY

1 Refuse Room RFC1

area: 37.0m²



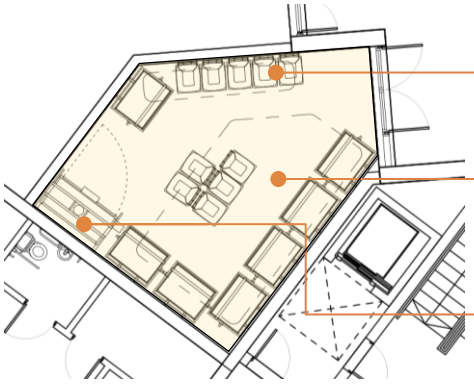
Surplus area provided to cater for potential expansion requirements

For Residents:
4 x 1100 litre bins
5 x 240 litre bins
Capacity: 5,600m²

For General Use:
60" Standard
Vertical Baler

2 Refuse Room RFD1

area: 39.1m²



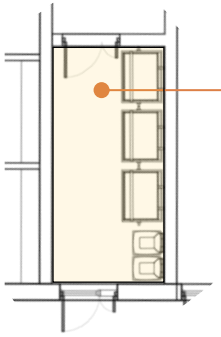
For Ancillaries:
1 x 1100 litre bins
5 x 240 litre bins
Capacity: 2,300m²

For Residents:
6 x 1100 litre bins
5 x 240 litre bins
Capacity: 7,800m²

For General Use:
60" Standard
Vertical Baler

3 Refuse Room RFD2

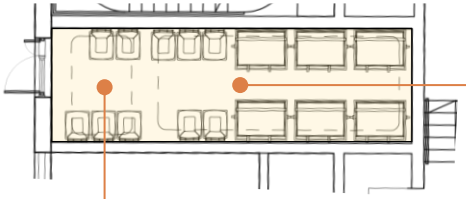
area: 22.0m²



For Creche:
3 x 1100 litre bins
2 x 240 litre bins
Capacity: 3,780m²

4 Refuse Room RFE1

area: 23.4m²



For Residents:
6 x 1100 litre bins
5 x 240 litre bins
Capacity: 7,800m²

For Ancillaries:
5 x 240 litre bins
Capacity: 1,200m²

