



# Westar Homes Ltd.

## Proposed Residential Development

Finlay Park  
Naas  
Co. Kildare

# Operational Waste Management Plan

**December 2022**

## Control Sheet

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## Operational Waste Management Plan

### Contents

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<b>1.0 Introduction .....</b>	<b>3</b>
<b>2.0 Methodology .....</b>	<b>3</b>
<b>3.0 Waste Management Policy and Legislative Overview .....</b>	<b>4</b>
<b>4.0 Proposed Development Description.....</b>	<b>11</b>
<b>5.0 Estimated Waste Generation.....</b>	<b>14</b>
<b>6.0 Waste Storage &amp; Collection.....</b>	<b>14</b>
<b>7.0 Conclusions .....</b>	<b>19</b>
<b>8.0 References.....</b>	<b>19</b>

**Attachment 1**      Proposed Layout

## 1.0 Introduction

This proposed Operational Waste Management Plan (OWMP) was prepared by Redkite Environmental Ltd. on behalf of Westar Homes Ltd. in support of a planning application for a proposed development comprising a Large-Scale Residential Development (LRD) of 134 dwellings, open space and commercial/health/medical unit floorspace (247.6sqm.) on a 2.9-hectare (ha) site at Finlay Park, Naas, Co. Kildare.

This Plan addresses Item 2 under the heading "Environment" of the Notice of LRD Opinion (Ref. 202202) dated 23<sup>rd</sup>, August 2022 as follows:

*"Applicant's proposals regarding management of operational waste for the proposed development is unclear. Applicant to outline clearly the proposed waste storage Facilities for the development occupants, as well as access arrangements for bin collection trucks in accordance with current road design standards for such developments."*

### 1.1 Plan Objectives

The thrust of the latest EU and government policy is to focus and enable the transition to a circular rather than a linear economy. A circular economy reduces material use, redesigns materials products and services to be less resource intensive and recaptures waste as a resource. The reduction and prevention of household waste generation is, to a large extent, outside the scope of this document, the main objective of which is to ensure that waste, where it arises from the proposed development, is managed correctly and that the infrastructure needed to enable correct segregation of waste for recycling etc. is included for in the proposed development in accordance with current legal requirements, industry standards and guidance.

This OWMP aims to ensure maximum recycling and recovery of waste with diversion from landfill in line with the requirements of the waste hierarchy and the latest EU targets.

The OWMP also estimates the type and quantity of waste likely to be generated from the proposed development during the operational phase and provides a proposal for managing the different waste streams.

## 2.0 Methodology

There is no specific guidance for the preparation of OWMPs. The requirements of waste policy and legislation as detailed in Section 3.0 have guided the preparation of this plan.

BS 5906:2005 Waste Management in Buildings – Code of Practice was used as guidance in estimating waste arisings.

EPA National Waste Statistic Reports and reports on Household Waste

Characterisation were used to develop % breakdown of waste arisings into various streams.

## **3.0 Waste Management Policy and Legislative Overview**

### **3.1 EU Context**

#### **8<sup>th</sup> Action Programme**

The 8<sup>th</sup> Environmental Action Programme (EAP) came into force on 2<sup>nd</sup> May 2022 as the EU's legally agreed common agenda for environmental policy until 2030. It builds on the *European Green Deal* designed to overcome the challenges of climate change and environmental degradation and to transform the EU into a modern resource efficient and competitive economy.

The action programme reiterates the EU's long-term vision to 2050 of living well, within planetary boundaries. It sets out priority objectives for 2030 and the conditions needed to achieve these. The action programme aims to speed up the transition to a climate-neutral, resource-efficient economy, recognising that human wellbeing and prosperity depend on healthy ecosystems.

The 8<sup>th</sup> EAP has 6 inter-linked thematic priority objectives including:

- *advancing towards a well-being economy that gives back to the planet more than it takes and accelerating the transition to a non-toxic circular economy where growth is regenerative, resources are used efficiently and sustainably, and the waste hierarchy is applied.*

#### **European Commission Circular Economy Strategy (2015, 2018, 2020)**

In December 2015, the European Commission adopted an ambitious circular economy package including revised legislative proposals on waste to stimulate Europe's transition to a circular economy.

The Circular Economy Package consists of an EU Action Plan for the circular economy that establishes a programme of actions, with measures covering the whole cycle from production and consumption to waste management and the market for secondary raw materials. The proposed actions will contribute to "closing the loop" of product lifecycles through greater recycling and re-use.

The revised legislative targets on waste set clear targets on reduction of waste. Key elements of the revised waste proposals include:

- Prepare for re-use and recycling of municipal solid waste (MSW) – 60% by 2030 and 65% by 2035;
- Recycle 70% of all packaging waste by 2030;
- Reduce municipal waste to landfill to a maximum 10% by 2030;
- A ban on landfilling of separately collected waste.

Key legislative measures adopted to date under the Plan:

- Directive (EU) 2018/851 amending Directive 2008/98/EC on waste;
- Directive (EU) 2018/850 amending Directive 1999/31/EC on the landfill of waste;
- Directive (EU) 2018/852 amending Directive 1994/62/EC on packaging and packaging waste;
- Directive (EU) 2018/849 amending Directives 2000/53/EC on end of life vehicles, 2006/66/EC on batteries and accumulators and waste batteries and accumulators and Directive 2012/19/EU on waste electrical and electronic equipment.

The above legislation has been transposed into Irish law.

### **3.2 National Context**

According to the EPA's website, Ireland's waste management practices, infrastructure and regulation have matured significantly over the last 20 years. This change has been driven by EU and national legislation, national policy and economic initiatives.

*A Waste Action Plan for a Circular Economy, Ireland's National Waste Policy 2020 -2025* was published in September 2020 by the Department of Environment, Climate and Communications and replaces the previous National Waste Policy entitled 'A Resource Opportunity - Waste Management Policy in Ireland' published by the DoEHLG in 2012, which focussed on waste as a resource and the virtual elimination of landfilling.

According to the EPA website and in line with EU policy, *"the ambition for Ireland now is a circular economy in which waste is prevented, consumption of single-use items is reduced, reuse and repair initiatives are incentivised, recycling is maximised, and residual waste that cannot be recycled is used as an energy source to replace fossil fuels."*

The EPA website under Current Trends (based on 2019 figures) – Waste notes the following with regards to municipal waste and pressures to achieve recycling targets in particular:

*Municipal waste consists of household waste and commercial and other waste that is similar in nature to household waste. It is one of the largest waste streams and a key area of policy focus.*

*Almost 3.1 million tonnes of municipal waste was generated in Ireland in 2019, up from 2.9 million tonnes in 2018. Municipal waste generation in Ireland continues to be closely linked with economic activity, income levels and consumption patterns.*

*Of the municipal waste generated in Ireland in 2019, 37% was recycled (down slightly from 38% in 2018), 46% was used in energy recovery (up from 43% in 2018) and 15% was landfilled (up slightly from 14% in 2018).*

*The last two decades have seen significant changes in how Ireland manages its municipal waste. Disposal to landfill has fallen sharply from over 80% in 2001 to 15% in 2019, with the landfill levy a key policy driver in this. Most of the municipal waste diverted from landfill has gone to energy recovery. The share of municipal waste sent for energy recovery increased from 0% in 2007 to 46% in 2019. Recycling, by contrast, has largely plateaued since 2010 and rates have now in fact started to slip, with a decrease from 40% to 37% between 2017 and 2019.*

*While 2019 data puts Ireland just in compliance with the Waste Framework Directive's municipal recycling target of 50% (due in 2020), the current recycling trends indicate that Ireland faces significant challenges to meet the future EU recycling targets for 2025 (55%) to 2035 (65%).*

The latest data for 2020<sup>1</sup> notes that 1.85 million tonnes of household waste was managed in 2020 from Irish households; -up by 18% since 2019 (1.57 million tonnes). In 2020, this equates to 372 kg per person. The increase in 2020 was likely linked to the Covid-19 pandemic and resulting changes in behavioural patterns. Up to 65% of the total household waste managed in 2020 was collected at the kerbside. The following figures represent a breakdown of the total waste as collected kerbside:

- 39% residual waste (black bin);
- 14% recycled waste (green bin);
- 11% organic waste (brown bin).

The remaining 35% of household waste generated is non-kerbside such bulky white goods and bottles/cans brought to bin etc.

With regards to food waste, and the roll-out of brown bins the EPA notes:

*Ireland generates approximately 1.1 million tonnes of food waste annually. About half (45%) of Ireland's food waste is estimated to come from the processing and manufacturing sector, with the remainder arising from households (23%) and the commercial sector including restaurants/food service and retail/distribution (32%).*

*An Irish household throws out approximately 150 kg of food waste each year at a cost of around €700, and food waste is estimated to cost Irish businesses over €2 billion each year.*

*Composting and anaerobic digestion are the main biological treatment processes for biodegradable wastes (food waste, garden and park waste, sludges).*

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<sup>1</sup> EPA Waste Data Release, 31<sup>st</sup> May 2022  
Redkite Environmental Ltd

*In 2019, approximately 528,000 tonnes of biodegradable waste was accepted at composting and anaerobic digestion facilities for treatment.*

*The Food Waste Regulations and the associated brown bin roll out have led to large increases in the quantity of municipal biowaste composted and anaerobic digested, from less than 50,000 tonnes in 2005 to 295,000 tonnes in 2019.*

*Despite these improvements, over 60% of household food waste is still being disposed of in the residual or recycling bin (either because residents do not have a brown bin or they are not using it correctly).*

*In 2019, 48% of Irish households had a brown bin, up from 43% in 2018. However, in line with EU requirements for the separate collection of biowaste from end-2023, Ireland's new national waste policy provides for the mandatory provision of an organic waste bin as part of the household waste collection service.*

### **3.2 Regional and County Context**

The proposed development is located in the Local Authority area of Kildare County Council (KCC).

The *Eastern-Midlands Region Waste Management Plan 2015 – 2021* is the overarching regional waste management plan for the KCC area. There are no updates to this plan currently published.

The Regional Plan sets out the following strategic targets for waste management in the region:

- Achieve a recycling rate of 50% of managed municipal waste by 2020, and,
- Reduce to 0% the direct disposal of unprocessed residual municipal waste to landfill (from 2016 onwards) in favour of higher value pre-treatment processes and indigenous recovery practices.

Municipal landfill charges in Ireland are based on the weight of waste disposed. In the Leinster Region, charges are approximately €130 - €150 per tonne of waste which includes a €75 per tonne landfill levy introduced under the *Waste Management (Landfill Levy) Regulations 2015*. The landfill levy regulations have been instrumental in diverting waste from landfill to recovery.

Section 7.6 of the *Kildare County Development Plan 2017 – 2023* sets out a number of policies for County Kildare in line with, and to reflect, the objectives of the regional waste management plan.

Waste policies and objectives with relevance to the proposed development operational phase include:



*WM1 To implement European Union, National and Regional waste related environmental policy, legislation, guidance and codes of practice to improve management of material resources and wastes.*

*WM3 To support the implementation of the Eastern Midlands Regional Waste Management Plan 2015 – 2021 by adhering to overarching performance targets, policies and policy action.*

*WM7 To secure appropriate provision for the sustainable management of waste within developments, including the provision of facilities for the storage, separation and collection of waste.*

*WM10 To encourage waste prevention, minimisation, re-use, recycling and recovery as methods of managing waste. Where waste management is not being carried out properly, the Waste Management Act as amended will be used as a means of ensuring specific national policies and regulations are being adhered to.*

*WM15 Support and facilitate the separation of waste at source into organic and non-organic streams or other waste management systems that divert waste from landfill and maximise the potential for each waste type to be re-used and recycled or composted and divert organic waste from landfill in accordance with the 'National Strategy on Biodegradable Waste 2006 and the Eastern-Midlands Region Waste Management Plan, 2015 – 2020.*

The draft County Development Plan 2023 – 2029 sets out the following relevant policies and objectives in Section 6.8.1 Chapter 6, Infrastructure and Environmental Services:

Policy 6:

*Implement European Union, National and Regional waste related environmental policy, legislation, guidance, and codes of practice, in order to support the transition from a waste management economy towards a circular economy.*

Objective 36:

*Encourage a just transition from a waste economy to a green circular economy in accordance with 'A Waste Action Plan for a Circular Economy 2020-2025'*

Objective 39:

*Require the appropriate provision for the sustainable management of waste within developments (particularly apartment buildings), including the provision of facilities for storage, separation, and collection of waste.*

#### Objective 42:

*Promote and facilitate communities to become involved in environmental awareness activities and community-based recycling initiatives, which lead to local sustainable waste management practices.*

#### Objective 44:

*Support and facilitate the separation of waste at source into organic and non-organic streams or other waste management systems that divert waste from landfill and maximise the potential for each waste type to be re-used, recycled or composted.*

The Naas Local Area Plan (LAP) 2021 – 2027 refers to protecting and enhancing the environment through implementation of European, national and regional policy and legislation relating to waste management. Objectives of the Council are to maintain existing recycling facilities, secure the provision of additional recycling facilities as required, support the development of a green waste composting site including in conjunction with new developments and to support local schools, town and community groups through education and awareness programmes.

### **3.3 Legislation**

The primary national legislative instruments, including Acts and Regulations, that govern waste management in Ireland and are applicable to the proposed development include:

- Waste Management Act 1996 (S.I. No. 10/1996) and 2001 Amendment Act (S.I. No. 36/2001);
- Waste Management (Landfill) Regulations 2020 (SI No. 321 of 2020);
- European Communities (Waste Directive) Regulations, 2020 (S.I.323/2020);
- European Union (Packaging) Regulations 2020 (SI No. 322 of 2020);
- European Communities (Waste Directive) Regulations 2011 (S.I. No.126/2011) and Amendment Regulations (S.I. No. 323/2011);
- Waste Management (Collection Permit) Regulations (S.I. No. 820/2007) as amended in 2008, 2015 and 2016;
- Waste Management (Facility Permit and Registration) Regulations 2007, (S.I. No. 821 of 2007) as amended in 2008, 2014, 2015 and 2019;
- Waste Management (Licensing) Regulations 2004 (S.I. No. 395/2004) as amended in 2010;
- Waste Management (Packaging) Regulations 2014 (S.I. No. 282/2014);
- Waste Management (Prohibition of Waste Disposal by Burning), Regulations, 2009 (S.I. No. 286/2009) and Amendment Regulations 2019 (S.I.684/2019);
- Waste Management (Landfill Levy) Regulations 2012 - 2019 (S.I. Nos. 221/2012, 194/2013, 189/2015 and 182/2019);
- European Union (Waste Electrical and Electronic Equipment) Regulations 2014 (S.I. No. 149/2014) and 2019 Amendment Regulations;

- European Union (Batteries and Accumulators) Regulations 2014 (S.I. No. 283 of 2014) as amended by (S.I. No. 349/2014);
- Waste Management (Food Waste) Regulations 2009 (S.I. No. 508/2009), as amended in 2015;
- European Union (Household Food Waste and Bio-waste) Regulation 2015 (S.I. No. 191/2015);
- Waste Management (Hazardous Waste) Regulations, 1998 (S.I. No. 163/1998) as amended in 2000 and part revoked by S.I. No. 324/2011;
- Waste Management (Shipments of Waste) Regulations, 2007 (S.I. No. 419/ 2007) as amended by S.I. 324/2011);
- Waste Management (Registration of Brokers and Dealers) Regulations, 2008 (S.I. No. 113/2008);
- Environmental Protection Act 1992 (S.I. No. 7/1992) as amended by the Protection of the Environment Act, 2003;
- Litter Pollution Act 1997 (S.I. No. 12 /1997) and 2009 Amendment;
- Litter Pollution Regulations, 1999 (S.I. No. 359 /1999);
- Planning and Development Act 2000 (S.I. No. 30/2000) as amended in 2010 and 2018.

Under the legislation, there is a responsibility for future homeowners/occupiers and the Management Company to ensure that waste is properly managed, handled and disposed of. Specifically, all waste collectors must be permitted and all waste must be recycled/recovered at authorised facilities.

A collection permit to transport waste must be held by each waste contractor which is issued by the National Waste Collection Permit Office (NWCPO). Waste receiving facilities must also be appropriately permitted or licensed. Operators of such facilities cannot receive any waste, unless in possession of a Certificate of Registration (COR) or waste permit granted by the relevant Local Authority under the *Waste Management (Facility Permit & Registration) Regulations 2007* as amended or a waste or IED (Industrial Emissions Directive) licence granted by the EPA. The COR/permit/licence held will specify the type and quantity of waste able to be received, stored, sorted, recycled, recovered and/or disposed of at the specified site.

### **3.3.1 Kildare County Council Waste Bye-Laws**

Kildare County Council (Segregation, Storage and Presentation of Household and Commercial Waste) Bye-laws, 2018 came into effect on 1<sup>st</sup> March 2019. These bye-laws deal with both commercial and household waste.

The bye-laws set out a number of requirements with regard to the following:

1. Obligation to participate in a waste collection service;
2. Maintenance and management of waste containers;
3. Location for container storage;
4. Use of waste containers on collection day;
5. Collection times and container removal;
6. Prohibited waste types;
7. Segregation of household waste and contamination prevention;

8. Additional provisions for householders not availing of a kerbside collection service;
9. Provisions affecting multi-user buildings and apartment blocks etc;
10. Interference with orderly waste collection;
11. Additional provisions for commercial waste, and,
12. Enforcement provisions/ fixed payment notices.

The above requirements will be addressed in this OWMP.

### **3.4 Regional Waste Management Service Providers & Facilities**

Various contractors offer waste collection services for the residential and commercial sectors in County Kildare. Details of waste collection permits (granted, pending and withdrawn) for the county are available from the NWCPO.

There are a decreasing number of landfills operating in Ireland in accordance with the key policy objective to reduce disposal of waste at landfills. There are a number of licensed and permitted facilities in operation serving County Kildare and the eastern/midlands region in general including waste transfer stations, hazardous waste facilities and integrated waste management facilities. There are two existing thermal treatment facilities, one in Duleek, Co. Meath and a second facility in Poolbeg in Dublin.

In the Naas area, there is a green waste recycling depot and civic amenity close to Osberstown WWTP. There are also recycling facilities for bottles and cans etc locally on the Caragh Road, Ploopluck, Blessington Road and Monread Road.

Further afield, there are two recycling centres located at Silliot Hill, just located outside Kilcullen and Gallows Hill, Athy, Co. Kildare. The Silliot Hill facility is a custom-built centre where householders can bring a wide range of materials for recycling or disposal where necessary.

## **4.0 Proposed Development Description**

The proposed development will consist of the construction of 134 no. apartments (comprising a mixture of 70 no. 2 storey apartments and 64 no. apartments - 22 no. 1 bedroom apartments, 77 no. 2 bedroom apartments, and 35 no. 3 bedroom apartments) with private open space provided in the form of balconies/terraces as follows:

- A) Block A (4 storey apartment block) comprising 26 no. apartments (6 no. 1 bed units, 16 no. 2 bed units & 4 no. 3 bed units); Block B (part 4 part 5 storey apartment block) comprising 66 no. apartments (10 no. 1 bed units, 33 no. 2 bed units and 23 no. 3 bed units), with a commercial/ health/medical unit (c. 247.6 sq. m) at ground floor; Block C (part 4 part 5 storey apartment block) comprising 42 no. apartments (6 no. 1 bed, 28 no. 2 bed units and 8 no. 3 bed units);

- B) Vehicular/pedestrian and cyclist access from the Old Caragh Road (in new arrangement) along with the provision of 201 no. undercroft and surface car parking spaces as well as 388 no. undercroft and surface cycle parking spaces; internal road and shared surface networks including pedestrian and cycle paths;
- C) Public Open space including proposed plaza, as well as central communal (courtyard) open space including outdoor playground area at podium level;
- D) 1 no. temporary (for 3 no. years) 3-sided signage structure (c. 4.5m in height) at the entrance to the proposed development.
- E) Provision of foul and surface water drainage, including relocation of existing foul main in northern part of site as well as green roofs; linear greenway path, bin stores; plant rooms; public lighting and all associated landscaping and boundary treatment works, site development and infrastructural works, ESB substations, and all ancillary works necessary to facilitate the development.

**Table 1: Schedule of Accommodation**

Description	Quantity
1 bed apartments	22
2 bed apartments	77
3 bed apartments	35
Commercial unit	247.6 sqm.

The total gross floor area of residential and commercial combined is 11,885.24m<sup>2</sup>.

The proposed layout is indicated on Dwg. A0111 in Attachment 1.

#### **4.1 Details of Waste Likely to be Generated**

The typical non-hazardous and hazardous wastes that will be generated on a regular basis at the proposed development will include the following:

- Dry Mixed Recyclables (DMR) - includes wastepaper (including newspapers, magazines, brochures, catalogues, leaflets), cardboard and plastic packaging, metal cans, plastic bottles, aluminium cans, tins and Tetra Pak cartons;
- Organic waste – food waste and green garden waste;
- Glass, and,
- Mixed Non-Recyclable (MNR)/General Waste.

The above wastes will be segregated into the above waste types to ensure compliance with waste legislation and guidance while maximising the potential

for re-use, recycling and recovery of waste with diversion from landfill wherever possible. In addition to the typical waste materials that will be generated at the development on a daily basis, there will be some additional waste types likely to be generated in small quantities by residents including:

- Batteries (both hazardous and non-hazardous);
- Waste electrical and electronic equipment (WEEE) (both hazardous and non-hazardous);
- Printer cartridges/toners;
- Chemicals (paints, adhesives, resins, detergents, etc.);
- Light bulbs (Fluorescent Tubes, and LED bulbs etc.);
- Textiles;
- Waste cooking oil (if any generated by the residents or commercial tenants);
- Furniture (and from time-to-time other bulky wastes including white goods).

#### 4.2 List of Waste Codes

The EPA published the 'Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous' initially in 2015 and updated in 2018. This waste classification system applies across the EU and provides codes called the List of Waste (LoW) codes for typical waste materials arising from different activities/sectors. The wastes likely to be generated by the proposed development and their associated codes are provided in Table 2 below.

**Table 2: List of Wastes Likely to be Generated**

Waste Material	LoW Code
Paper and Cardboard	20 01 01
Plastics	20 01 39
Metals	20 01 40
Mixed Non-Recyclable Waste	20 03 01
Glass	20 01 02
Biodegradable Kitchen Waste	20 01 08
Oils and Fats	20 01 25
Textiles	20 01 11
Batteries and Accumulators*	20 01 33* - 34
Printer Toner/Cartridges*	20 01 27* - 28
Green Waste	20 02 01
WEEE*	20 01 35*-36
Chemicals (paints & adhesives, detergents, etc.) *	20 01 13*/19*/27*/28/29* 30
Fluorescent tubes and other mercury containing waste*	20 01 21*
Bulky Wastes	20 03 07

\*Denotes hazardous

## 5.0 Estimated Waste Generation

The EPA website reports on waste statistics for Ireland. The latest figures indicate that the total amount of household waste generated per person annually is 372kg (based on the year 2020 and listed but non-published on the EPA's website, 2022). The latest figures reveal that only 48% of Irish households have brown bins and that roughly 60% of all organic household waste continues to be put in the "wrong bin." Ireland's recycling rate will need to improve to meet new ambitious EU targets for 2025 and 2030.

BS 5906:2005 Waste Management in Buildings – Code of Practice has been considered in the estimation of waste generated by the proposed development. The total weekly waste arisings from the overall proposed development are estimated at approx. 26.02m<sup>3</sup> per week using this method which is a conservative approach. An alternative approach can be taken using the EPA waste generation figure per person annually of 372kg, an average household figure of 2.75 persons per household as reported in the 2016 Census and a conversion rate of 0.27 tonnes as equivalent to 1m<sup>3</sup> of household waste. However, this approach will result in a lower estimate of weekly waste generation for the proposed development.

**Table 3: Weekly Waste Generation**

Waste Type	m <sup>3</sup> /week				
	1-bed	2-bed	3-bed	Commercial	Total
Organic waste	0.18	1.05	0.67	0.08	<b>1.97</b>
DMR	1.28	7.59	4.87	1.56	<b>15.30</b>
MNR	0.66	3.93	2.52	0.65	<b>7.75</b>
Glass	0.09	0.52	0.34	0.04	<b>0.99</b>
<b>Total</b>	<b>2.20</b>	<b>13.09</b>	<b>8.40</b>	<b>2.33</b>	<b>26.02</b>

## 6.0 Waste Storage & Collection

This section provides information on how waste generated within the development will be stored and how the waste will be collected from the development.

This has been prepared with due consideration of the proposed site layout as well as best practice standards, local and national waste management requirements including those of KCC. In particular, consideration has been given to the following documents:

- BS 5906:2005 Waste Management in Buildings – Code of Practice;
- EMR Waste Management Plan 2015 – 2021;
- KCC County Development Plan 2017 – 2023;
- KCC Draft County Development Plan 2023 – 2029;

- KCC, Bye-Laws for the Storage, Presentation and Collection of Household and Commercial Waste (2018), and,
- Department of Housing, Planning and Local Government (DoHPLG), Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities (2018).

All residents will be required to source segregate waste into DMR, MNR, glass and organic waste.

Waste Storage Areas (WSAs) are provided at Podium Car-parking Level and ground floor level in Blocks B&C as follows:

**Table 4: Proposed WSA Locations**

Block	WSA (m <sup>2</sup> )
Podium/Groundfloor Level	
B	Area 1- 52.5
B	Area 2 - 56.9
C	46.0
<b>Total</b>	<b>155.4</b>

A separate secure area within the closest WSA (Area 2) in Block B will be provided for the commercial unit.

WSA requirements for each individual block has been calculated as set out in Table 5 below.

**Table 5: Bin Requirements for Each Block**

Waste Type	m <sup>3</sup> /week				
	Block A	Block B	Block C	Commercial (Block B)	Total
Organic waste	0.34	0.97	0.58	0.08	<b>1.97</b>
DMR	2.48	7.04	4.22	1.56	<b>15.30</b>
MNR	1.28	3.64	2.18	0.65	<b>7.75</b>
Glass	0.17	0.49	0.29	0.04	<b>0.99</b>
<b>Total</b>	<b>4.28</b>	<b>12.13</b>	<b>7.28</b>	<b>2.33</b>	<b>26.02</b>

Each 1.1m<sup>3</sup> bin requires a floorspace of approx. 1.68m<sup>2</sup>. Sufficient space for movement of the bins is required at approximately 1.5 times the required bin floor area. Some bins will be 240lt for organic waste, however as a conservative estimate, the total area required for bins has been calculated based on 26.02 x 1,100lt bins required to service development. The total area required is 65.57m<sup>2</sup>. WSAs proposed for the development total 155.4m<sup>2</sup> and therefore will exceed the estimated weekly collection requirements, even taking into



account any waste generation spikes which may occur. Nevertheless, if more frequent collections are required, the waste management company can arrange additional collections as required.

Within individual apartments and duplexes, there will be adequate provision for the temporary storage of segregated materials prior to deposition in the communal WSAs.

All WSA bins will be clearly labelled and colour coded to avoid cross contamination of the different waste streams. Typically, the following colour codes will be used:



All waste receptacles used will comply with the IS EN 840 2012 standard for performance requirements of mobile waste containers, where appropriate.

The WSAs will meet the following requirements:

- Be fitted with a non-slip floor surface;
- Provide ventilation to reduce the potential for generation of odours with a recommended 6-10 air changes per hour for a mechanical system for internal WSAs;
- Provide suitable lighting – a minimum Lux rating of 220 is recommended;
- Be easily accessible for people with limited mobility;
- Be restricted to access by residents, (operators in the case of the retail unit designated area) facilities management and waste contractors only. Key or electronic fob access will be implemented.
- Be supplied with hot or cold water for washing of bins;
- Be fitted with suitable power supply for a power washer, if required;
- Have a sloped floor to a central foul drain for bin wash water run-off;
- Have appropriate signage placed above and on bins indicating correct use; and
- Have measures for potential control of vermin, if required.

The Facility Management Company, will be required to maintain the bins and their WSAs in good condition. All residents will be made aware of the waste segregation requirements and waste storage arrangements.

All residents will be required to segregate waste glass within their units and bring it for recycling at civic amenity centres unless otherwise agreed with the appointed waste contractor.

## **6.2 Waste Collection**

On collection days, waste bins will be moved from the WSAs to a waste bin collection area near the entrance to the undercroft parking. Refuse trucks will reverse into the turning point (hammerhead) provided at the access to the undercroft parking to collect the bins.

There are numerous private contractors that provide waste collection services in the Kildare area. All waste contractors servicing the proposed development will hold a valid waste collection permit for the specific waste types collected. All waste collected will be transported to registered/permitted/licensed facilities only.

Waste collection is expected to occur on a weekly basis. Placing and removal of bins following emptying will comply with KCC bye-laws.

## **6.3 Other Waste Types Generated**

In addition to the typical waste materials that are generated on a daily basis, there will be some additional waste types generated from time to time that will need to be managed separately as discussed below.

### **Green waste**

Green waste may be generated from gardening including grass mowing by individual house owners and by landscaping of shared external amenity. Green waste generated from landscaping of external areas will be removed by external landscape contractors. Green waste generated from gardens can be placed in the organic waste bins.

### **Batteries**

In accordance with KCC waste bye-laws it will be prohibited for residents to place batteries in the waste bins provided on site. A take-back service for waste batteries and accumulators (e.g. rechargeable batteries) is in place in order to comply with the Waste Management Batteries and Accumulators Regulations 2014 as amended. In accordance with these regulations consumers are able to bring their waste batteries to their local civic amenity centre or can return them free of charge to retailers which supply the equivalent type of battery, regardless of whether or not the batteries were purchased at the retail outlet and regardless of whether or not the person depositing the waste battery purchases any product or products from the retail outlet.

## **Waste Electrical and Electronic Equipment (WEEE)**

The Waste Management (WEEE) Regulations have been enacted to ensure a high level of recycling of electronic and electrical equipment. In accordance with the regulations, consumers can bring their waste electrical and electronic equipment to their local recycling centre. In addition, consumers can bring back WEEE within 15 days to retailers when they purchase new equipment on a like for like basis. Retailers are also obliged to collect WEEE within 15 days of delivery of a new item, provided the item is disconnected from all mains, does not pose a health and safety risk and is readily available for collection.

### **Printer Cartridge/Toners**

Waste printer cartridge/toners generated by residents can be returned to the supplier free of charge or can be brought to the Silliot Hill dedicated facility.

### **Chemicals (paints, adhesives, detergents etc)**

Chemicals (such as paints etc) are largely generated from building maintenance works. Such works are usually completed by external contractors who are responsible for the off-site removal and appropriate recovery/recycling/disposal of any waste materials generated. Where residents undertake their own maintenance/redecorating, then KCC should be contacted regarding disposal. **Paint Reuse** initiatives are often set up in local authority areas.

### **Light Bulbs (including Fluorescent Tubes and Long Life, LED etc.)**

Light bulbs generated by residents should be taken to the Silliot Hill centre for appropriate storage and recovery/disposal.

### **Textiles**

Where possible, waste textiles should be recycled or donated to a charity organisation for reuse. There are local civic amenities in Naas where waste clothing can be recycled.

### **Waste Cooking Oil**

If the residents generate waste cooking oil, this can be brought to the Silliot Hill dedicated facility.

### **Furniture (and other bulky wastes)**

Furniture and other bulky waste items (such as washing machines etc.) may occasionally be generated by residents. If residents wish to dispose of furniture or bulky white goods then these can be brought to the Silliot Hill dedicated facility.

## 7.0 Conclusions

In summary, this OWMP presents a waste strategy that addresses all legal requirements, waste policies and best practice guidelines and demonstrates that the required storage areas and adequate access arrangements have been incorporated into the design of the proposed development.

Implementation of this OWMP will ensure a high level of recycling, reuse and recovery at the development. All recyclable materials will be segregated at source to reduce waste contractor costs, residual waste will likely be sent for energy recovery thus ensuring maximum diversion of materials from landfill, thus achieving the latest EU targets.

Adherence to this plan will also ensure that waste management at the development is carried out in accordance with the requirements of the KCC Waste Bye-Laws and relevant Development Plans.

The waste strategy presented in this document will provide sufficient storage capacity for the estimated quantity of segregated waste. The designated areas for waste storage will provide sufficient room for the required receptacles in accordance with the details of this strategy.

## 8.0 References

- A Waste Action Plan for a Circular Economy, Ireland's National Waste Policy 2020 -2025, Department of Environment, Climate and Communications, Sept 2020
- BS 5906:2005 - Waste Management in Buildings – Code of Practice
- Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions A new Circular Economy Action Plan for a Cleaner and more Competitive Europe COM 2020/98 final.
- Decision (EU) 2022/591 of the European Parliament and of the Council of the 6 April 2022 on a General Union Environmental Action Programme to 2030.
- Eastern-Midlands Region Waste Management Plan 2015 – 2021, Dublin City Council.
- Household Waste Characterisation Campaign, RPS, November 2018.
- Kildare County Development Plan 2017 – 2023, Kildare County Council.
- Kildare County Draft Development Plan 2023 – 2029, Kildare County Council.
- Naas Local Area Plan (LAP) 2021 – 2027, Kildare County Council.
- National Waste Statistics, Summary Report for 2019, EPA, December 2021.
- Non-Household Waste Characterisation Campaign, Clean Technology Centre, Cork, 2018.

# Attachment 1



Description:  
 Digital Cartographic Model (DCM)  
 Publisher / Source:  
 Ordnance Survey Ireland (OS)  
 Data Source / Reference:  
 PRIME2  
 File Format:  
 Autodesk AutoCAD (DWG\_R2013)  
 File Name:  
 v\_50119998\_1.dwg  
 Clip Extent / Area of Interest (AOI):  
 LXL.LLY= 687832.0,719115.0  
 LRX.LRY= 689356.0,719115.0  
 ULX.ULY= 687832.0,720311.0  
 URX.URY= 689356.0,720311.0  
 Projection / Spatial Reference:  
 Projection: IRENET95\_Irish\_Transverse\_Mercator  
 Centre Point Coordinates:  
 X,Y= 688594.0,719713.0  
 Reference Index:  
 Map Series / Map Sheets  
 1:1,000 | 3559-07  
 1:1,000 | 3559-02  
 1:2,500 | 3558-B  
 1:2,500 | 3559-C  
 1:1,000 | 3559-22  
 1:1,000 | 3559-06  
 1:2,500 | 3558-D  
 1:2,500 | 3559-A  
 Data Extraction Date:  
 Date= 14-May-2020  
 Source Data Release:  
 DCLMS Release V1.128.109a  
 Product Version:  
 Version= 1.3  
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ALL CONTRACTORS MUST VISIT THE SITE AND BE RESPONSIBLE FOR CHECKING ALL SETTING OUT DIMENSIONS AND NOTIFYING THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO ANY MANUFACTURE OR CONSTRUCTION WORK.

NOTES:

# DESIGN INTENT DRAWING

FOR INFORMATION PURPOSES

- LEGEND:**
- SITE OUTLINED IN RED
  - SITE AREA =28,825.07 m<sup>2</sup> / 2.9 H.A
  - LAND OWNERSHIP EXTENDS BEYOND RAWING. FUTURE DEVELOPMENT
  - APARTMENT BLOCKS

**SCHEDULE OF ACCOMMODATION**

1BED	2BED	3BED	TOTAL
22	77	35	134
16%	57%	26%	100%

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 Sárlíonann aitheacht neamhdúdarthaíocht cópáireacht Suirbhéireacht Ordánais Éireann agus Rialtas na hÉireann.  
 Gach cead ar cosnadh. Ní ceadmhach aon chuid den fhóclóir seo a chóipeáil, a aistriú nó a tharscríobh in aon bhealach gan cead i scríbhinn roimh ná ó úinéir a chóipeáil.  
 Ní hionann bóthar, bealach nó cosán a bhéith ar an léarscáil seo agus fíneáil ar a chéad sáil.  
 Ní thaispeánann léarscáil de chuid Ordánais Suirbhéireacht na hÉireann leagan phoiblí (leathúil de mhaoin niamh, ná úinéireacht de ghnáithe thiscúla.

MASTERPLAN FOR BALANCE OF CLIENT LANDHOLDING EXTENDING SOUTH EAST TO THE HARBOUR LANDS, NORTH AND NORTH EAST. A MASTERPLAN HAS BEEN AGREED FOR THESE AREAS WHICH INCLUDES FOR ALL RELATED OBJECTIVES OF THE NAAS SALLINS TRANSPORT STRATEGY AND FUTURE POTENTIAL LAND USE ZONINGS

Rev	Date	Description	Issued By
P01	06/12/2022	Planning Issue	

## PLANNING

Client:  
 Westar Homes Limited

Project:  
 Residential @ Finlay Park  
 Finlay Park, Naas, Co. Kildare

Drawing Title:  
 Proposed Site Layout

Drawn	Checked	Paper Size	Scale	@A1	Date
VM	BB	A1	As indicated		06/12/2022
Project No.	Drawing No.	Classification	Revision		
PE17019	0111		P01		

File Name:  
 PE17019-CWO-01-ZZ-DR-A-0111  
 Status:  
 S2-Suitable for information



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Please consider the environment before printing this sheet

1 Proposed Site Layout - Zone 1  
 1: 500