Appendix 6-1 Outline Construction Management Plan

(See Appendix 4-1)

Appendix 6-2 (Appendix 12-3)

Resource Waste Management Plan

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Resource and Waste Management Plan

PRESENTED TO

Liscove Limited

Large-Scale Residential Development on Lands at Wayside, Enniskerry Road and Glenamuck Road, Kilternan, Dublin 18

DATE

July 2024

Environmental Consultancy Services

DOCUMENT CONTROL SHEET

Client	Liscove Limited
Project Title	Large-Scale Residential Development on Lands at Wayside, Enniskerry Road and Glenamuck Road, Kilternan, Dublin 18
Document Title	Resource and Waste Management Plan

Rev.	Status	Author(s)	Reviewed by	Approved by	Issue Date
01	DRAFT	*Gareth Carroll* *Principal Consultant*	Patrick Higgins *Technical Director*	Patrick Higgins *Technical Director*	14/06/2024
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Note: The appendices will be updated / populated as appropriate throughout the construction phase of the Proposed Development.

1 INTRODUCTION

Enviroguide Consulting (hereafter referred to as EGC) was appointed by Liscove Limited (hereafter referred to as the Applicant) to prepare a Resource and Waste Management Plan (RWMP) for the construction phase of the proposed large-scale residential development (LRD) on lands at Wayside, Enniskerry Road and Glenamuck Road, Kilternan, Dublin 18 (referred to hereafter as the 'proposed development' and 'site').

A description of the proposed development is provided in Section 2.

1.1 Scope and Purpose of this RWMP

The purpose of this RWMP is to provide the information necessary to ensure that the management of construction and demolition (C&D) materials arising from the construction phase of the proposed development is undertaken in accordance with relevant EU, National and Local Waste Management Policies, Waste Legislation, and Best Practice Guidelines, as described in Section 3.

This RWMP details the legal and policy framework aimed at resource and waste management for C&D projects in Ireland. This RWMP also includes information on the roles and responsibilities of all parties involved in the proposed development; the type and quantity of resources and waste to be generated by the proposed development and details the planned approach to the management of resources and waste onsite. This RWMP will ensure minimum waste is generated and maximum recycling, re-use and recovery of waste with diversion from landfill, wherever possible. It will provide guidance on the appropriate collection and transport of waste from the site to prevent issues associated with litter or more serious environmental pollution (e.g. contamination of soil and/or water).

This RWMP will provide a framework to:

- Comply with current waste policy and legislation (refer to Section 3).
- Comply with all relevant conditions attached to the Grant of Planning (once issued) from Dún Laoghaire Rathdown County Council (hereafter referred to as DLRCC) (refer to Section 3.1).
- Identify the roles and responsibilities contractor organisations, their sub-contractors and employees to the roles specific to materials and waste management (refer to Section 4).

This RWMP has been prepared as a pre-planning document and relates to the construction phase of the proposed development and will be updated by the Main Contractor (once appointed) in advance of construction works commencing onsite.

1.2 'Live document'

The RWMP is considered a 'live' document and as such will be reviewed on a regular basis. Updates to this RWMP may be necessary due to:

- Appointment of the Main Construction Contractor.
- Appointment of the Waste Contractor.
- In the event of a change of Contractor.
- Following DLRCC inspections or comments.

- In the case that any major design changes are made.
- In the case that there are any changes in waste management practices / legislation.

As detailed in Section 6 of this document, the exact materials and quantities construction waste that will be generated during the construction phase of the proposed development will be audited throughout the project roll-out phase to prevent waste arising in the first place, and to re-use, recycle or recover waste materials where possible.

All documentation required by this RWMP such as Waste Collection Permits, Certificates of Registration (CORs), Waste Facility Permits and Waste Licences, in addition to waste transfer documents and landfill gate receipts will be compiled in the annex of documents to accompany this RWMP. A register of documents is provided in Section 1.3.

1.3 Register of Documents

A live register of documents will be maintained both digitally and in hard copy on site as part of this waste management plan. The content of this register is outlined below. It will be the responsibility of the Site Resource and Waste Manager to ensure that the register of documents is updated as appropriate.

The following documents will be maintained in the live register of documents:

- Appendix A. Project Organogram
- Appendix B. Project Programme
- Appendix C. Site Construction Compound Layout
- Appendix D. Site Contact Details
- Appendix E. Letters of Acceptance
- Appendix F. Approved Receiving Waste Facility Permits / Licences
- Appendix G. Nominated Waste Facilities Template
- Appendix H. National Waste Collection Permits
- Appendix I. Nominated Haulage Contractors Template
- Appendix J. Soil Management Plan(s) / Waste Classification Report (s)
- Appendix K. Waste Management Log Template
- Appendix L. Waste Dockets / Landfill Gate Receipts

It is noted that all appendices will be updated / populated as appropriate throughout the construction phase of the Proposed Development.

2 DESCRIPTION OF THE PROJECT

2.1 Site Location and Description

The site of the proposed development, measuring approximately 14.2Ha, is located on lands at Wayside, Enniskerry Road and Glenamuck Road, Kilternan, Dublin 18. The site, which is accessed of Glenamuck Road, is located approximately 1.9km southwest of the M50 and the Carrickmines Retail Park. The proposed development site location is presented in Figure 2-1.

The site, which comprises largely undeveloped grasslands, includes a derelict dwelling known as 'Rockville' and associated derelict outbuildings in the north and the former Kilternan Country Market in the south.

The site is divided into two parcels of land which will be separated by the future Glenamuck Distributer Link Road (GLDR). The western portion site is generally bounded by the Glenamuck Road to the north; the Sancta Maria property to the north, west and south; a recently constructed residential development named "Rockville" to the north-east; the Enniskerry Road to the south-west; dwellings to the south; and the future GLDR to the east. The eastern site is generally bound by dwellings to the south; the future GLDR to the west; and greenfield land to the north and east.

The current site layout is presented in Figure 2-2.

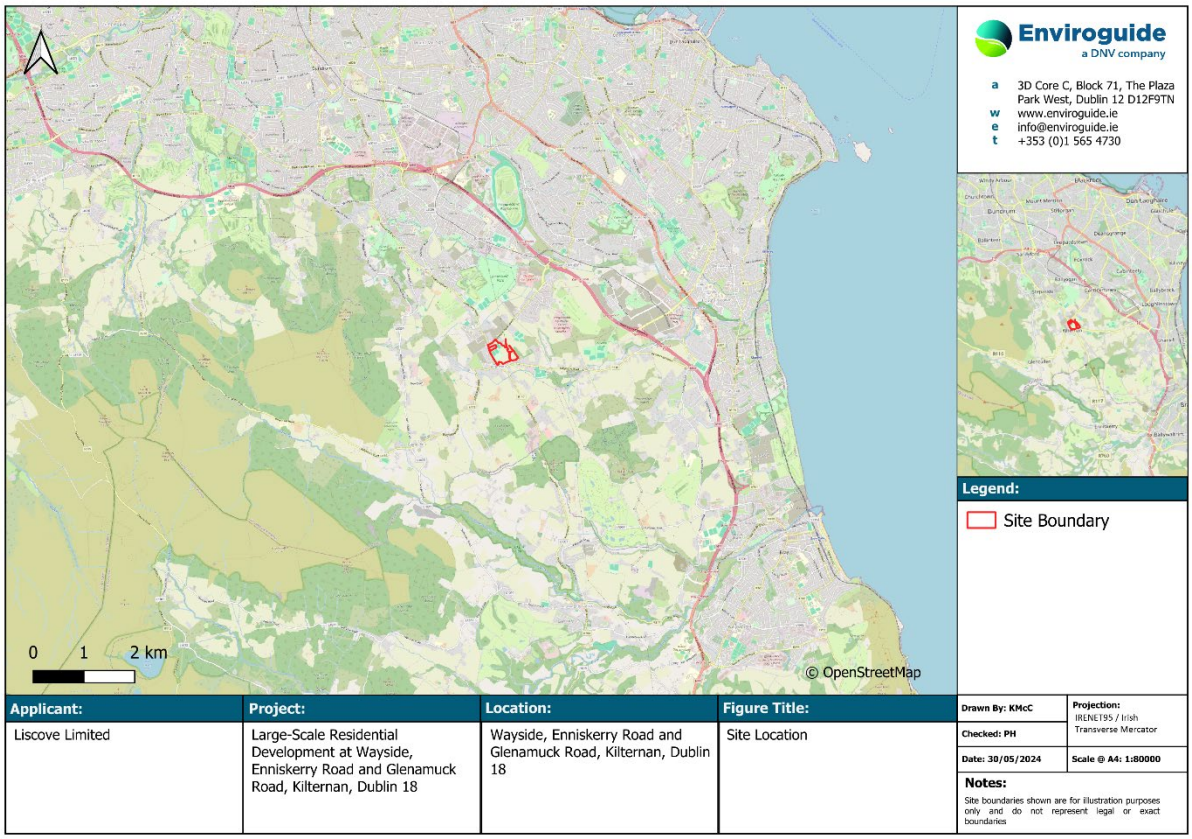

Figure 2-1. Site Location

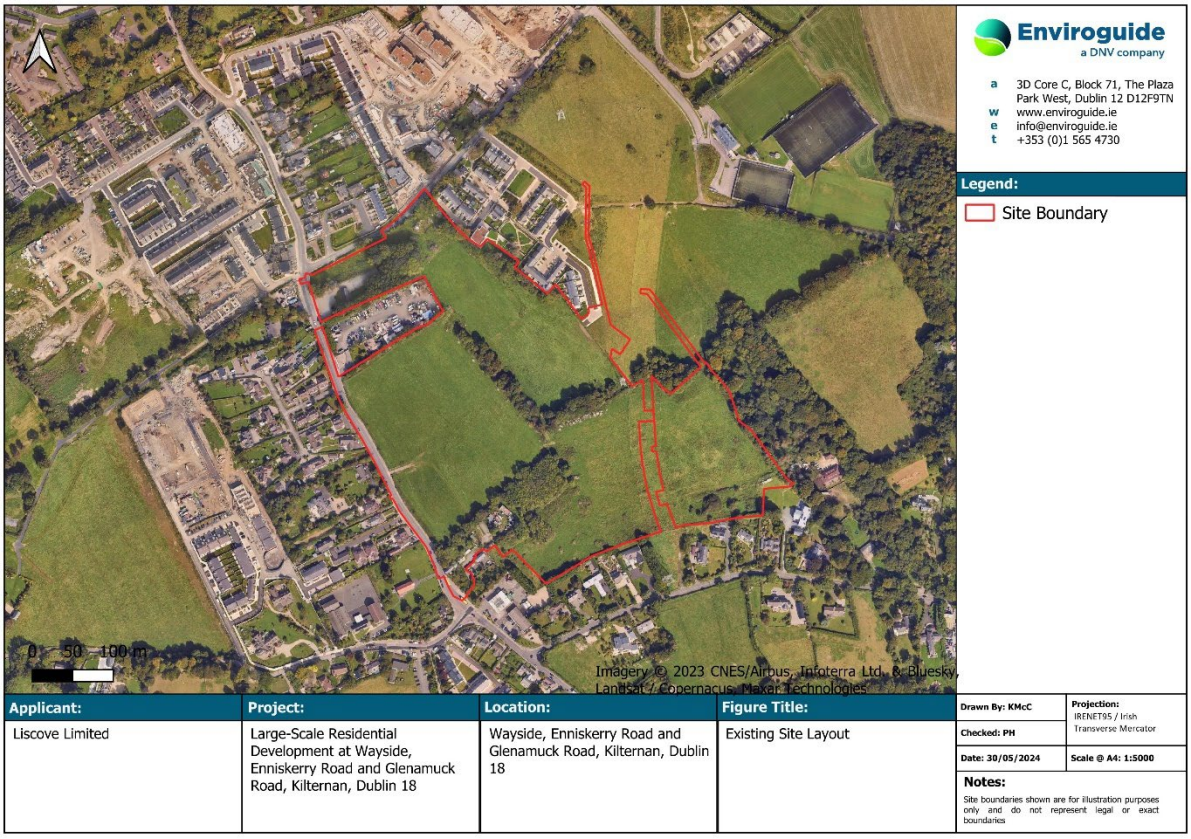

Figure 2-2. Current Site Layout

2.2 Description of the Proposed development

The Applicant intends to apply for permission for a Large-Scale Residential Development on 2No. sites, measuring approximately 14.2 Ha., which will be separated by the future Glenamuck Distributer Link Road (GLDR). The western site principally comprises lands at Wayside, Enniskerry Road and Glenamuck Road, Kilternan, Dublin 18, which include a derelict dwelling known as ‘Rockville’ and associated derelict outbuildings, Enniskerry Road, Kilternan, Dublin 18, D18 Y199 and the former Kilternan Country Market, Enniskerry Road, Kilternan, Dublin 18, D18 PK09. The western site is generally bounded by the Glenamuck Road to the north; the Sancta Maria property to the north, west and south; a recently constructed residential development named "Rockville" to the north-east; the Enniskerry Road to the south-west; dwellings to the south; and the future GLDR to the east. The eastern site is generally bound by dwellings to the south; the future GLDR to the west; and greenfield land to the north and east.

Road works are proposed to facilitate access to the development from the Enniskerry Road; to the approved Part 8 Enniskerry Road/Glenamuck Road Junction Upgrade Scheme on Glenamuck Road (DLRCC Part 8 Ref. PC/IC/01/17); and to the approved Glenamuck District Roads Scheme (GDRS) (ABP Ref. HA06D.303945) on the Glenamuck Link Distributor Road (GLDR). Drainage and potable water infrastructure is proposed to connect to services on the Glenamuck Road, Enniskerry Road and the GLDR.

At the ‘Rockville access point’, works are proposed to provide a multi-modal access, including a vehicular connection between the Proposed Development and the Rockville development

(permitted under DLR Reg. Ref. D18A/0566). The new access will require the removal of the existing as-built hammerhead turning area at Rockville to create this new connection. The residual hammerhead area will be landscaped to tie into the adjoining landscape strategy. The above works are inclusive of all necessary tie-in works such as new kerbs, drainage details, road marking, signage, and public lighting.

The Proposed Development will principally consist of: the demolition of approximately 740m^2 of existing structures on site comprising a derelict dwelling known as 'Rockville' and associated derelict outbuildings (approximately 573m^2) and the former Kilternan Country Market (wooden structure) (approximately 167m^2); and the provision of a mixed-use development principally consisting of 487 No. residential units (196 No. houses, 201 No. duplex units and 90 No. apartments) and a Neighbourhood Centre. The western site will comprise 362 No. residential units and the Neighbourhood Centre, which will provide an anchor retail store (approximately 1,310m^2), retail/commercial (approximately 3,284m^2), a restaurant (approximately 182m^2), a creche (approximately 691m^2), café (approximately 326m^2), and a community facility (approximately 332m^2), and the eastern site will comprise 125 No. residential units. The 487 No. residential units will consist of 53 No. 1 bedroom units (35 No. apartments and 18 No. duplexes), 150 No. 2 bedroom units (38 No. houses, 16 No. apartments and 96 No. duplexes), 236 No. 3 bedroom units (110 No. houses, 39 No. apartments and 87 No. duplexes) and 48 No. 4 bedroom units (48 No. houses). The Proposed Development will range in height from 2 No. to 4 No. storeys (including podium/undercroft level in Apartment Blocks 1, 2 and 3 and Duplex Block T and U on the eastern site).

The Proposed Development also provides: a pedestrian/cycle route through the Dingle Way from Enniskerry Road to the future Glenamuck Link Distributor Road; 854 No. car parking spaces (125 No. in the undercroft of Apartment Blocks 1, 2 and 3 and Duplex Blocks T and U and 729 No. at surface level) including 28 No. mobility impaired spaces, 87 No. electric vehicle spaces, 2 No. car share spaces, and 4 No. drop-off spaces/loading bays; motorcycle parking; bicycle parking; bin storage; provision of new telecommunications infrastructure at roof level of the Neighbourhood Centre including shrouds, antennas and microwave link dishes (18 No. antennas, all enclosed in 9 No. shrouds and 6 No. transmission dishes, together with all associated equipment); private balconies, terraces and gardens; hard and soft landscaping; sedum roofs; solar panels; boundary treatments; lighting; substations; plant; and all other associated site works above and below ground. The Proposed Development has a gross floor area of approximately 60,504m^2 above ground, in addition to an undercroft/basement (approximately 4,485m^2) containing car parking, bike storage, bin storage and plant under Apartment Blocks 1, 2 and 3 and Duplex Blocks T and U on the eastern site.

The construction phase of the proposed development will include:

- The demolition of approximately 740m^2 of existing structures onsite.
- Foundation design will consist of pad and strip foundations with no requirement for piling.
- The stripping of existing topsoil at the Site.
- Excavation of soil and subsoil for the construction of building foundations, drainage and other infrastructure to depths of between 0.6m and 3.0m for foundations and 1.5m to 3.0mbGL for drainage and infrastructure with excavation of 95,250m^3 of soils. It is anticipated that there will be no requirement for the excavation of bedrock during the construction phase of the Proposed Development.

- Where possible, it is intended to reuse suitable excavated soil and subsoil for landscaping and engineering use. However, it is anticipated that up to 66,400m^3 of surplus materials will require removal offsite in accordance with all statutory legislation.
- It is anticipated that excavations for foundations will be above groundwater however, locally groundwater may be encountered during deeper excavations for drainage.

The proposed development site layout is provided in Figure 3-1.

Figure 2-3: Proposed Development Site Layout Plan (Crossan O'Rourke Manning Architects, 2024. Site Layout - Drawing No. PL1000)

3 WASTE LEGISLATION AND OTHER REGULATORY REQUIREMENTS

3.1 Conditions of Planning Permission

All works undertaken throughout the construction phase of the proposed development will be required to comply with the relevant material and waste management conditions and control measures of the Grant of Planning from DLRCC (once issued), for the duration of the works.

3.2 National Waste Policy and Best Practice Guidelines

The Irish Government's policy document of 1998, 'Waste Management: Changing our Ways', represented Ireland's initial efforts to establish objectives for waste prevention, minimisation, reuse, recycling, recovery, and disposal, including management of Construction and Demolition (C&D) waste.

In response to this initiative, the Irish Construction Industry formed a waste sector task force and released the 'Recycling of Construction and Demolition Waste' report. This report aimed to create a voluntary program within the construction industry aligning with governmental objectives for C&D waste recovery.

The National Construction and Demolition Waste Council (NCDWC) was established in June 2002, subsequently publishing the 'Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects' in July 2006, in collaboration with the Department of the Environment, Heritage, and Local Government (DoEHLG). These guidelines delineated considerations from the pre-planning phase to project completion. They also established development thresholds necessitating the preparation of a C&D Waste Management Plan and stressed the contractual obligation for Contractors to adhere to waste management standards.

In 2012, the then Department of the Environment, Community and Local Government (DoECLG) (previously DoEHLG), published 'A Resource Opportunity – Waste Management Policy in Ireland' which supported the prioritisation of the waste hierarchy and identified specific producer responsibilities for construction and demolition projects above specific thresholds as a key area for exploration. The EPA's 'Design Out Waste' report in 2015 emphasized early integration of Waste Management Plans into the design phase of projects for effective implementation, benchmarking, monitoring, and reporting throughout construction.

In 2021, following public consultation, the Environmental Protection Agency (EPA) released 'Best Practice Guidelines for the Preparation of Resource & Waste Management Plans for Construction & Demolition Projects', superseding the 2006 DoEHLG guidelines. These guidelines propose a standardised approach to preparing Resource and Waste Management Plans (RWMP), emphasising submission for all projects to inform planning consent and tailoring the level of detail to project scale and complexity. Additionally, they classify projects into two tiers based on proportionality to ensure larger projects with larger potential resource footprints are required to more actively manage resources compared to smaller scale projects.

The EPA's guidelines align with current waste legislation and policy, including 'A Waste Action Plan for a Circular Economy – Ireland's National Waste Policy 2020-2025', which prioritises waste prevention, resource maximisation, and consistency across the waste sector. This

policy was extended in 2023 with the introduction of the “National Waste Management Plan for a Circular Economy 2024-2030”. This plan reflects revised EU material recovery targets and underscores Ireland’s dedication to transitioning towards a circular economy. As a statutory document, the plan is rooted in both national and EU waste legislation, aligning with the targets delineated for C&D waste within the Waste Framework Directive (WFD). Its strategic vision entails reimagining waste management approaches, steering towards a 'circular economy' paradigm where resources are extensively reused or recycled, thereby minimizing overall waste generation. The plan specifically aims to “prioritize waste prevention and circularity in the construction and demolition sector to diminish the resources destined for waste capture”.

Other guidelines followed in the preparation of this report include ‘Construction and Demolition Waste Management – a handbook for Contractors and Site Managers’ published by FÁS and the Construction Industry Federation in 2002.

These policy and guidance documents are considered to define best practice for C&D projects in Ireland and describe how C&D projects are to be undertaken such that environmental impacts and risks are minimised and maximum levels of waste recycling are achieved.

3.3 Irish Waste Management Targets

Ireland’s national waste policy underwent revision in 2020, with a heightened focus on the circular economy, leading to the publication of ‘A Waste Action Plan for a Circular Economy: Ireland’s National Waste Policy 2020-2025’. This plan set a target of 70% by weight for the preparation of non-hazardous C&D waste for reuse, recycling, and other material recovery, excluding natural soils and stone.

In alignment with EU directives, the “Circular Economy Action Plan: For a cleaner and more competitive Europe” in 2020 introduced a new “Strategy for a Sustainable Built Environment”, to revise the material recovery targets previously set in EU legislation for C&D waste.

Building upon these initiatives, the subsequent introduction of the “National Waste Management Plan for a Circular Economy 2024-2030” in 2023 extended and refined the objectives initially outlined in the 2020-2025 Plan. This revised plan not only reflects the updated EU material recovery targets but also underscores Ireland’s sustained commitment to advancing towards a circular economy. Integral to this vision is the aim to achieve zero total waste growth per person, advocating for practices such as selective demolition, enhanced recycling efforts, and widespread adoption of circular construction products. Moreover, the Plan has delineated specific and measurable performance targets concerning Construction and Demolition waste, including:

- Achieve a 2% reduction per annum in total construction and demolition waste, with the aim of achieving a cumulative 12% reduction by 2030, based on a baseline of 9 million tonnes.
- Strive for 70% of C&D waste to be diverted for reuse, recycling, and other forms of recovery, excluding natural soils, stones, and hazardous wastes.

As of 2021, Ireland has exceeded the 70% target, achieving an 85% C&D waste recovery rate (EPA, 2023. Circular Economy and Waste Statistics Highlights Report 2021), representing an increase from 78% in 2020 (EPA, 2022. National Waste Statistics Summary Report for 2020).

It should be noted, however, that soil and stone C&D wastes (LoW 17 05 03* and 17 05 04) are excluded from the calculation of the Waste Framework Directive targets.

The EPA (EPA, 2023. Circular Economy and Waste Statistics Highlights Report 2021) notes that C&D produces the largest volume of waste in the state amounting to 9.0m tonnes of waste in 2021, which represents an increase of 10% from the 8.2m tonnes generated in 2020. It also notes that the overall composition of C&D waste changed little between 2020 and 2021. At 85% soil and stone waste remained dominant, followed by waste concrete, brick, tile and gypsum (7%) and mixed C&D waste (4%). The proportion of segregated (wood, paper, glass, plastic and metal) C&D waste collected remained small at just under 4.0% in 2021 increasing from 3.1% in 2020. Final treatment (recycling, re-use as backfilling, re-use as a fuel, disposal) varied greatly between the various material streams generated during C&D operations as noted in Table 3-1. However, approximately 93% of all C&D waste material in 2021 was either recovered, re-used or recycled with the most dominant recovery operation being re-use as backfilling (i.e., land reclamation, improvements, or infill works).

Table 3-1. Final Treatment for C&D Waste Material Classes (EPA, 2023. Circular Economy and Waste Statistics Highlights Report 2021)

Material	Recycled (t)	Energy Recovery(t)	Recovered / Backfilled (t)	Disposal (t)	Total (t)
Metal	272,734	0	0	0	**272,734**
Segregated Wood, Glass and Plastic	50,348	13,918	743	407	**65,417**
Concrete, Brick, Tile and Gypsum	262,685	1,244	299,725	16,568	**580,223**
Waste Bituminous Mixtures	41,150	1,505	33,449	8,527	**84,631**
Mixed Construction and Demolition Waste	398	73	88,747	34,356	**123,573**
Waste Soils, Stones and Dredging Spoil	0	34	7,251,952	450,267	**770,2253**
Waste Treatment Residues	51,892	9,326	39,122	114,580	**214,917**
Total (t)	679,208	26,098	7,713,738	624,705	**9,043,749**
% of total treated	**7.5%**	**0.3%**	**85.3%**	**6.9%**	**100%**

This RWMP sets out the waste management objectives for the proposed development for waste prevention, maximum recycling, reuse and recovery of waste with diversion from landfill, wherever possible. It also sets out the appropriate measures to be taken regarding the collection and transport of waste from the site to prevent issues associated with litter or more serious environmental pollution (e.g., contamination of soil and/or water).

3.4 Regional Waste Policy

The site of the proposed development is located on lands at Wayside, Enniskerry Road and Glenamuck Road, Kilternan, Dublin 18 in the administrative area of DLRCC.

The Dún Laoghaire-Rathdown County Development Plan 2022-2028 sets out a number of policies, objectives and actions for the Dún Laoghaire-Rathdown area. Waste objectives and actions with a particular relevance to the Proposed development are:

- **EI12: Waste Management Infrastructure, Prevention, Reduction, Reuse and Recycling (Circular Economy approach).**
  It is a Policy Objective to support the principles of the circular economy, good waste management and the implementation of best international practice in relation to waste management in order for the County and the Region to become self-sufficient in terms of resource and waste management and to provide a waste management infrastructure that supports this objective.
- **EI13: Hazardous Waste**
  It is a Policy Objective to adhere to the recommendations of the 'National Hazardous Waste Management Plan 2014-2020' and any subsequent plan, and to co-operate with other agencies, to plan, organise, authorise and supervise the disposal of hazardous waste streams, including hazardous waste identified during construction and demolition projects.

3.5 Legislative Requirements

The primary piece of legislation governing waste management in Ireland is the Waste Management Act 1996, (as amended) and all associated regulations. Waste management is also regulated by the Environmental Protection Act 1992, (as amended), Litter Pollution Act 1997, (as amended) and the Planning and Development Act 2000, (as amended).

Under the Waste Management Act, 1996, (as amended), the waste producer is responsible for waste from the time it is generated through until its legal recycling, recovery, or disposal (including its method of disposal). This includes transportation by an authorised waste contractor.

3.6 Regulatory Requirements

3.6.1 European Communities (Waste Directive) Regulations 2011

These regulations transpose European Directive 2008/98/EC amending and superseding a number of provisions of the Waste Management Act 1996 (as amended), and associated regulations. Provisions include extended producer responsibility, the implementation of the Waste Management Hierarchy, and measures to promote the preparation of materials for re-use, recycling, and other material recovery (including beneficial backfilling operations using waste as a substitute). The European Communities (Waste Directive) Regulations 2011 also transpose EU waste management targets as set out in Section 1.3 as statutory benchmarks to achieved by Ireland.

3.6.2 Waste Management (Facility Permit & Registration) (Amendment) Regulations 2015 (S.I. No. 198/2015)

Waste receiving facilities must be appropriately permitted or licensed and must be listed in the appendix of the Waste Collection Permit as an authorised destination. Operators of such facilities cannot receive any waste, unless in possession of a Certificate of Registration (COR) or Waste Management Facility Permit granted by the relevant Local Authority under the Waste Management (Facility Permit & Registration) Regulations 2007 as amended or a licence granted by the EPA under the Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) and S.I. No. 137/2013 - Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations 2013.

The COR/permit/licence held will specify the type and quantity of waste that the facility is authorised to accept, store, process, recycle, recover and/or dispose of.

3.6.3 Waste Management (Licensing) Regulations 2004 and Waste Management (Licensing) (Amendment) Regulations 2010

These regulations relate to the process for obtaining a waste licence from the EPA for the operation of certain waste recovery or disposal facilities under Part V of the Waste Management Act.

3.6.4 Waste Management (Collection Permit) Regulations 2007 (S.I. No. 820/2007), as amended

The Waste Management (Collection Permit) Regulations 2007, as amended (S.I No. 820 of 2007) regulate the transport of waste in Ireland and provide that in order to transport waste, a waste carrier must hold a valid waste collection permit. Waste contractors engaged by construction contractors must be legally compliant with respect to waste transportation, recycling, recovery, and disposal. This includes the requirement that a contractor handle, transport, and recycle/recover/dispose of waste in a manner that does not give rise to environmental pollution or the risk of environmental pollution.

A valid waste collection permit to transport the specific waste types generated by the project must be held by each waste contractor which is issued by the National Waste Collection Permit Office (NWCPO).

3.6.5 Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous

Correct classification of waste is the foundation for ensuring that the collection, transportation, storage and treatment of waste is carried out in a manner that provides protection for the environment and human health and in compliance with legal requirements.

In 1994, the European Waste Catalogue was published by the European Commission. In 2002, the EPA published a document titled the European Waste Catalogue and Hazardous Waste List. This document has been replaced by the EPA 'Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous' which became valid from the 1st July 2018.

The waste classification system applies across the EU and is the basis for all national and international waste reporting obligations such as those associated with waste collection

permits, certificates of registration, waste facility permits, EPA Waste and Industrial Emissions licences and the EPA National Waste Database.

The EPA document 'Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous' (EPA, 2018) consolidates the legislation and allows the generators of waste to classify the waste as hazardous or non-hazardous and in the process to assign the correct List of Waste entry.

Under the classification system, different types of wastes are fully defined by a code. The List of Waste (LoW) code (previously referred to as European Waste Code or EWC).

4 RESOURCE AND WASTE MANAGEMENT TEAM

4.1 Project Roles and Responsibilities

The roles and responsibilities of personnel and the lines of communication specific to resource and waste management are outlined in the following sections.

All parties involved in the construction phase of the proposed development will have responsibility for waste management. Responsibility will vary at different stages of the project lifecycle.

The Main Contractor will have overall responsibility for the implementation of the RWMP and appointing the following roles and responsibilities within the Construction Management Team (CMT).

The roles and responsibilities are indicative and may be amended over the course of the project. It should be noted that one person may be appointed to multiple roles.

The project organogram will be provided by the Main Contractor (once appointed) and included in Appendix A. It is noted that the project organogram may be updated throughout the construction phase of the proposed development.

The key responsibilities are set out in Table 4-1.

Table 4-1. Construction Stage Resource and Waste Management – Key Responsibilities

Responsible Party	Responsibility
The Developer	Appointment of competent Main Contractor
	Responsibility of environmental and waste management including documentation of same
Main Contractor	Implementation of the RWMP
	Appoint competent and authorised waste management contractor(s)
	Appoint trained, competent Project Manager and Construction Environmental and Waste Manager.
Construction Director	Overall responsibility for the implementation of the RWMP;
	Allocating the correct resources in order to ensure the successful implementation of the RWMP; and
	Assist in the management review of the RWMP for suitability and effectiveness.
Project Manager	To report to the Construction Director on the on-going performance and development of the RWMP;
	To discharge his/her responsibilities as per the RWMP; and
	To support and augment the Construction Management Team (CMT) through the provision of adequate resources and facilities for the duration of the implementation of the RWMP.
	Read, understand, and implement the RWMP.
	Have knowledge of the requirements of the relevant law in environmental and waste matters and take whatever action is necessary to achieve compliance. Where necessary seek the advice of the contracted Construction Environmental and Waste Manager.
	Ensure that environmental, resource and waste matters are considered at all times.
	Be aware of any potential environmental, resource and waste management risks relating to the Site, plant, or materials to be used on the premises and bring these to the notice of the appropriate management; and
Construction Environmental	Ensuring that the requirements of the RWMP are reviewed and environmental, resource and waste system elements (including procedures, method statements and work instructions) are

Responsible Party	Responsibility
and Waste Manager	implemented and adhered to with respect to environmental, resource and waste management requirements;
	Reviewing the environmental, resource and waste management responsibilities of all sub-contractors in scoping their work and during their contract tenure;
	Ensuring that advice, guidance, and instruction on all RWMP matters is provided to all managers, employees, construction contractors and visitors onsite;
	Reporting to the Project Manager / Construction Director on the environmental, resource and waste management performance of Line Management, Supervisory Staff, Employees and Contractors;
	Advising Site management on environmental and waste matters;
	Be aware of any potential environmental risks relating to the Contractors and bring these to the notice of the appropriate management;
	Ensure the resource and waste register is completed; and
	Maintenance of all environmental, resource and waste related documentation.
	Training of all Site staff in the requirements of the RWMP including environmental controls, resource and waste management and the approved process for communications/complaints handling.
Environmental and Waste Operative	Assisting with the implementation, monitoring and record keeping requirements of the detailed RWMP with respect to environmental, resource and waste management requirements
	Ensuring commitment, operational efficiency and accountability during the construction phase of the proposed development in line with the RWMP.
	Selecting a waste team if required, (i.e., members of the Site crew that will aid them in the organisation, operation and recording of the resource and waste management system implemented onsite).
	Overseeing, recording and providing feedback to the Construction Director everyday resource and waste management at the Site.
	Delegating responsibility to sub-contractors, where necessary, and to coordinate with suppliers, service providers and sub-contractors to prioritise waste prevention and material salvage.
	Conducting environmental, resource and waste audits, maintaining a record system, and establishing targets for waste management at the Site during the construction phase of the proposed development.
Project Communications Officer	Responding to any concerns or complaints raised by the public in relation to the construction phase of the proposed development..
	To liaise with the Construction Environmental Site Manager on community concerns relating to the environment and waste management.
	Ensure the Environmental and Waste Manager is informed of any complaints relating to the environment and waste management.
	Keep the public informed of project progress and any construction activities that may cause inconvenience to the local community.
Site Personnel	To co-operate fully with the CMT and the Environmental Officer in the implementation and development of the RWMP at the site.
	To conduct all their activities in a manner consistent with regulatory and best environmental and waste management practice.
	To participate fully in the environmental, resource and waste management training programme and provide management with any necessary feedback to ensure effective environmental, resource and waste management at the site.
	Adhere fully to the requirements of the site environmental and waste management rules.
Sub-contractors	Comply with RWMP where relevant
Project Environmental Consultant(s)	If required, the Main Contractor will engage with a Project Environmental Consultant(s) to provide specialist environmental inputs and act in the roles of Environmental Clerk of Works (including Contaminated Land Consultant) (ECoW), and Ecological Clerk of Works (EcCoW) as required. The key responsibilities of the Project Environmental Consultant are summarised as follows:

Responsible Party	Responsibility
	Updating of the RWMP and advising the Main Contractor in the updating of the RWMP, environmental, resource and waste management control plans and supporting procedures.
	Advising the site management on environmental, resource and waste matters as appropriate.
	Carrying out environmental surveys (data logging (noise, water, dust, etc.)) as required.
	Generating reports when required to show environmental data trends and incidents.
	Advising on the production of written method statements and Site environmental and waste management rules and on the arrangements to bring these to the attention of the workforce as required.
	Investigating incidents of significant, potential, or actual environmental damage, ensure corrective actions are carried out and recommend means to prevent recurrence.
	Provision of specialist input and supervision where necessary, of construction activities in relation to the environment, habitats and species and any specified protection measures in accordance with the conditions of the Grant of Planning and those identified in the particulars submitted with the planning application for the construction phase of the proposed development
	Where necessary and if required, the appointed ECoW will be responsible for completing any additional waste classification of excavated soil waste materials to enable off-site disposal in compliance with all relevant waste management legislation

4.2 Resource and Waste Management Plan Awareness and Training

All training records will be documented and maintained and will be made available to the Client and all relevant regulatory authorities upon request. All site personnel and sub-contractors will be instructed about the objectives of these plans and informed of the responsibilities which fall upon them as a consequence of its provisions. Where source segregation and selective material reuse techniques apply, each member of staff will be given instructions on how to comply with the RWMP and the best practice guidelines.

All training records will be documented and maintained in the Project HSEQMS records which will be made available to the Client and all relevant regulatory authorities upon request.

4.2.1 Construction Environmental and Waste Manager

The Construction Environmental and Waste Manager will keep up to date with waste legislation, codes of practice and other literature.

The Construction Environmental and Waste Manager will be responsible for:

- Ensuring that Resource and Waste Management Induction Training is carried out for all the Contractor's site personnel. The induction training may be carried out in conjunction with Safety Induction Training;
- Providing toolbox talks on waste management associated with Site-specific Method Statements to those who will undertake the work; and
- Setting up and maintaining record keeping systems and to assist with audits.

The Construction Environmental and Waste Manager will be trained in how to perform an audit and how to establish targets for waste management onsite. The Construction Environmental and Waste Manager will also be trained in the best methods for segregation and storage of recyclable materials, have information on the materials that can be reused on-site and be knowledgeable in how to implement this RWMP.

The Construction Environmental and Waste Manager will also assist with the waste management training requirements, and subsequent training for all levels of employees on the project.

4.2.2 Site Personnel Training

A basic awareness briefing will be held for all site crew to outline the RWMP and to detail the segregation of waste materials at source. This may be incorporated with other site training needs such as general site induction, health and safety awareness, asbestos awareness training and manual handling.

This basic briefing will describe the describe specific environmental requirements, procedures for the segregation of materials, waste storage methods and the location of the designated storage areas. Where required, a sub-section on any hazardous wastes onsite will be incorporated into the briefing and the particular dangers of each hazardous waste will be explained.

The sub-contractors will be instructed to comply with the RWMP and will be audited by the Construction Environmental and Waste Manager and the Client as required to ensure compliance with the RWMP.

5 CONSTRUCTION SCHEDULE AND PLAN

5.1 Programme

The construction of this development is intended to take place in the following phases (Phase 1, 2, 3, 4 and 5). The construction period is expected to last for 5 years, from 2025 up to 2030.

The final programme duration and proposed sequence of construction will be further developed by the Main Contractor (once appointed) in advance of construction works commencing onsite and will be agreed with the Client. The project programme, which may be amended over the course of the project, is included in Appendix B.

5.2 Working Hours

Normal site working hours (as set out by DLRCC) will apply for the construction phase of the proposed development (i.e., Monday to Friday: 08:00 and 19:00 (excluding bank holidays) and Saturdays: 08:00 to 14:00). It is noted that working hours will take account of any restrictions identified in the Grant of Planning (once issued).

No works are envisaged to be carried out on Sundays or Bank Holidays. However, should there be a need to work on Sundays, Bank Holidays or outside the specified normal working hours, a written submission, with compelling reasons for the proposed deviation, seeking authorisation will be made by the Main Contractor to DLRCC. The Main Contractor must give the times and dates of the proposed work, and the mitigation measures that are to be used to minimise noise/disturbance.

Any such approval from DLRCC may be subject to conditions pertaining to the particular circumstances being set by DLRCC. It is noted that any breaches of permitted working hours or permitted extended working hours or developers or subcontractors not carrying out their requirements under this protocol may lead to enforcement action and may also result in the withdrawal of any extension of hours of works for a period that will be at the discretion of DLRCC.

5.3 Site Construction Compound

All construction support related activities including office facilities, welfare facilities such as toilets and canteen and car parking facilities will be contained within the designated site compound area. The layout of the site compound area is presented in Figure 5-1 (also included in Appendix C). It is noted that the layout of the designated site compound / designated storage areas, which will be maintained in the onsite live RWMP files, will be further developed by the Main Contractor (once appointed) and amendments may also be required as works progress.

Materials handling and plant storage including waste shall be contained within the Site boundary.

Designated storage areas will be maintained within the boundary of the site for materials handling, waste segregation and temporary storage of soils (e.g., of skips or stockpiled material until a viable load is available or if pending waste classification). The designated storage areas will house all bins and skips for the storage of segregated construction waste

generated. All designated storage areas will be identified by clear legible signage and recorded on the site layout drawings which will be maintained onsite. All containers will be marked with clear signage which will identify which waste types are to be placed into each container.

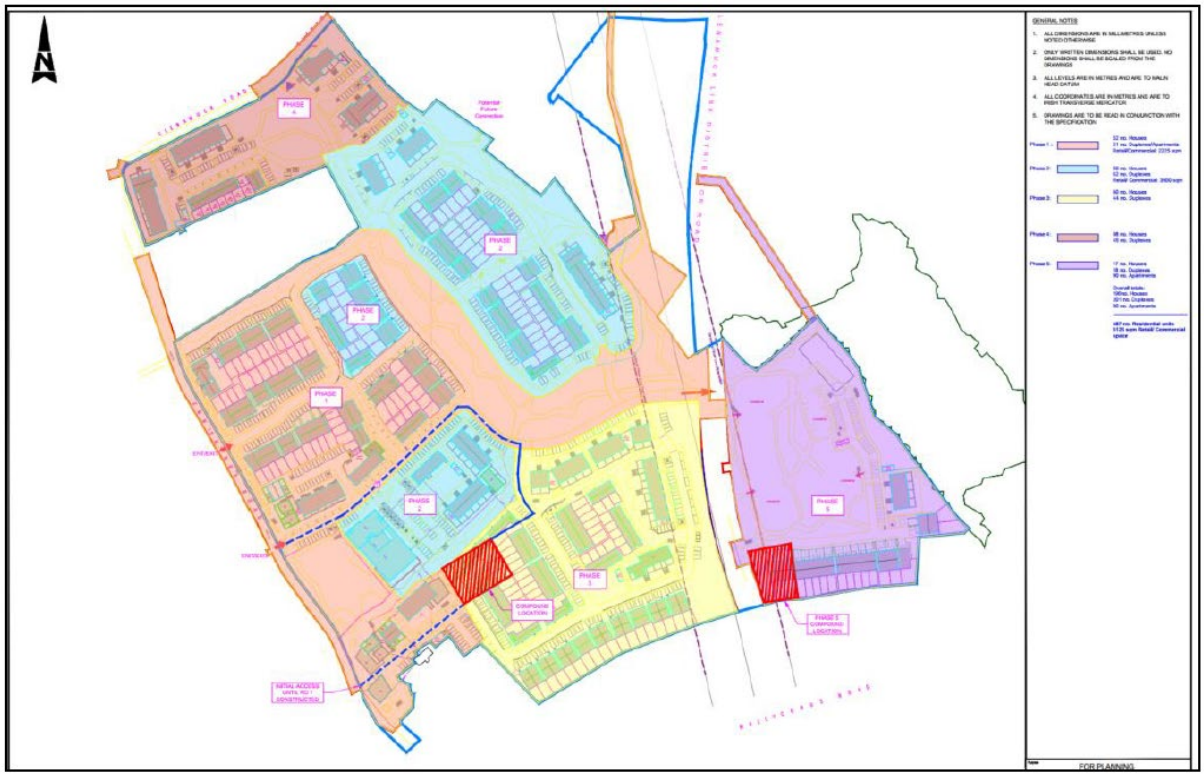

Figure 5-1. Construction Compound Layout

5.4 Site Contact Details

The Main Contractor will ensure that the contact details for the Project Manager / Construction Environmental and Waste Manager / Project Communications Officer and the Environmental and Waste Officer will be displayed on the Site hoarding at appropriate locations across the Site and will be included in Appendix D.

The contact details of the Project Manager / Construction Environmental and Waste Manager / Project Communications Officer and the Environmental and Waste Officer will also be displayed to the public at the Site entrance, together with the permitted operating hours, including any special permissions given for out of hours work.

5.5 Consultation With Relevant Bodies

5.5.1 Local Authority

The local authority (i.e., DLRCC) will be consulted as required.

All waste management documentation and records maintained digitally onsite will be made available to DLRCC or other relevant statutory bodies authorities as requested.

5.5.2 Recycling/Salvage Companies

Companies that specialise in C&D waste management will be contacted to determine their suitability for engagement. In addition, information regarding individual construction materials will be obtained, including the feasibility of recycling each material, the costs of recycling/reclamation and the means by which the wastes will be collected and transported offsite, and the recycling/reclamation process each material will undergo offsite.

5.5.3 The Client

All information regarding the management of the waste during works, will be made available to the Client upon request.

The Construction Environmental and Waste Manager or delegate will submit appropriate written reports of findings and recommendations to the Client relating to site waste management. Full Waste Reports will be generated and submitted to the Client, as required.

The Construction Environmental and Waste Manager will inform the Client on all aspects of waste generation, waste recycling and waste minimisation onsite.

In the event of an environmental incident or emergency the Client will be immediately notified by the Project Manager / Construction Environmental and Waste Manager.

In the event of ground contamination being encountered, Client will be immediately notified by the Project Manager / Construction Environmental and Waste Manager; noting that Client or their representative may require to complete a visual assessment.

6 MATERIALS AND WASTE TYPES

6.1 Quantities of Surplus Materials and Waste

It is estimated that approximately 4,396 tonnes of C&D type materials will be generated during the demolition and construction works at the Site. The excavation and off-site removal of up to 66,400 tonnes of soil will also be required. Where possible, surplus soil that is verified to be clean inert soil will be removed from the Site under an Article 27 By-product notification (refer to Section 8.2).

A breakdown of the approximate quantities of C&D waste materials that will be generated throughout the construction phase of the proposed development, based on the information available to date and estimated quantities provided by the Main Contractor, is presented in Table 8-2. The List of Waste (LoW) code for each waste stream is also shown.

Table 8-1. Predicted Quantities of C&D Waste and LoW Code

Materials and Waste Type	List of Waste (LoW) Code	Approximate Volume (tonnes)
C&D Materials		
Demolition Stage		
Concrete	17 01 01	1,443
Wood, Glass and Plastic	17 02 01, 17 02 02 and 17 02 03	8
Metals (including their alloys)	17 04 01, 17 04 02, 17 04 03, 17 04 04, 17 04 05, 17 04 06 and 17 04 07	16
Electrical and Electronic Components	20 01 35* and 20 01 36	1
Construction Stage		
Concrete	17 01 01	207
Wood	17 02 01	963
Plasterboard	17 08 02	345
Metals (including their alloys)	17 04 01, 17 04 02, 17 04 03, 17 04 04, 17 04 05, 17 04 06 and 17 04 07	276
Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	17 09 04	1,137^
Total		**4,396**
Materials and Waste Type	**List of Waste (LoW) Code**	**Approximate Volume (tonnes)**
Soil and Stone		
Non-Hazardous Soil and Stone	17 05 04	66,400
Hazardous Soil and Stone	17 05 03*	0
Total		**66,400**

Note:

^Where possible, all waste materials will be segregated onsite. However, there may be a requirement for segregation of waste materials offsite at the receiving waste facility. In this instance the materials

Materials and Waste Type	List of Waste (LoW) Code	Approximate Volume (tonnes)
will be transported offsite as LoW Code 17 09 04 Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03 Where possible, it is intended to reuse suitable excavated soil and subsoil for landscaping and engineering use. However, it is anticipated that up to 66,400m3 of surplus materials will require removal offsite in accordance with all statutory legislation. It is noted that the re-use of soil and stone will be prioritised in accordance with relevant waste management legislation (e.g. Article 27 By-product Notification).		

Until final materials and detailed construction methodologies have been confirmed, it is difficult to predict with a high level of accuracy the C&D waste that will be generated from the proposed works as the exact materials and quantities may be subject to some degree of change and variation during the construction process.

The RWMP will be updated with predicted and actual quantities by the Main Contractor as information becomes available in advance of construction works commencing onsite.

6.2 Invasive Plant Species

No non-native invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) were recorded within the site during a field survey undertaken by Scott Cawley on the 30th of March 2023.

While there were no non-native invasive species recorded in the Proposed Development site, there is potential for species to spread to the site during the interim between the original survey and commencement of construction following grant of planning permission (if received). A confirmatory pre-construction invasive species survey will be undertaken by a suitably qualified specialist to confirm the absence, presence and/or extent of any Third Schedule non-native invasive species within the Proposed Development site. Any invasive plant species identified will be managed in accordance with the procedures outlined in Section 8.3.3.

7 WASTE CLASSIFICATION

7.1 Roles and Responsibilities

7.1.1 Construction Environmental and Waste Manager

The appointed Construction Environmental and Waste Manager will be responsible for ensuring all waste classification of wastes generated throughout the works to ensure offsite removal for recycling/ recovery and disposal in compliance with all relevant waste management legislation.

7.1.2 Project Environmental Consultant

Where necessary and if required, the Project Environmental Consultant will be responsible for completing any waste classification of excavated soil waste materials to enable off-site disposal in compliance with all relevant waste management legislation.

7.2 C&D Waste Materials

The waste classification of inert C&D wastes generated throughout the Construction Phase of the Proposed development including concrete, wood, glass, plastic, metal, paper, cardboard and electrical and electronic components will be based on visual observations by the Environmental and Waste Officer or appointed delegate.

7.3 Asbestos and Asbestos Containing Materials (ACMs)

It is anticipated that there will be no asbestos containing materials (ACMs) generated during the Construction Phase of the Proposed development.

Where required, the waste classification of ACMs will be based on an assessment by an appropriately qualified asbestos specialist. If ACMs are found at any stage during the demolition and construction phases, the client will be notified, and a suitable management plan will be implemented for the safe removal and disposal.

7.4 Soil and Stone

Based on the design for construction of the Proposed development, it is estimated that approximately 95,250m^3 of soils will be excavated to facilitate the construction of building foundations, utility infrastructure, roads and landscaping. Where possible, it is intended to reuse suitable excavated soil and subsoil for landscaping and engineering use. However, it is anticipated that up to 66,400m^3 of surplus materials will require removal offsite in accordance with all statutory legislation.

The offsite re-use of soil including under an Article 27 By-product Notification where applicable (refer to Section 8.2) will be prioritised. In the event that soil is deemed to be unsuitable for re-use or does not meet the requirements of Article 27 By-product Notification, the removal of surplus soils and materials off-site for disposal will be undertaken in accordance with all relevant waste management legislation.

The Main Contractor must be satisfied that there is sufficient data to meet with the legal requirement and industry standards to ensure that all waste and materials are compliantly managed and removed off-site in accordance with waste management legislation.

7.4.1 Assessment and Waste Classification

Where sampling and assessment of soil and materials is required to ensure that the materials are managed and removed offsite in accordance with waste management legislation or where the material is not suitable for re-use and considered a waste, the waste classification of sample results will be based on the following method:

- Soil sample collection and analysis in accordance with relevant industry standards including but not limited to:
    - EPA guidance document 'List of Waste & Determining if Waste is Hazardous or Non-hazardous and Waste Classification' (EPA, 2018); and
    - BS 10175:2011 Investigation of potentially contaminated sites - Code of practice (BSI, 2011).
- Assessment of results to determine if the sample is a hazardous or non-hazardous waste and assigning a List of Waste (LoW) Code to the sampled material in accordance with EPA guidance 'Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous' (EPA, 2018); and
- The material will also be assessed to determine if the material meets the waste acceptance criteria for authorised landfills and soil recovery facilities as follows:
    - Screening the sample analytical results against the waste acceptance criteria (Landfill WAC) set out in the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002); and
    - Screening the sample analytical results against the Maximum Concentrations and/or Soil Trigger Levels set out in the Environmental Protection Agency (2020) "Guidance on Waste Acceptance Criteria at Authorised Soil Recovery Facilities" (SRF WAC).

8 MATERIALS AND WASTE MANAGEMENT

The management of the main waste streams are detailed in the following sections.

In line with the Waste Hierarchy (from the Waste Framework Directive), prevention of waste and re-use will be prioritised over disposal. The construction phase of the proposed development will align with this policy by implementing the following measures:

- A policy of 'as needed' ordering and strict purchasing procedures will prevent waste arisings as far as possible.
- Any excavated soil will be incorporated into the design of the Proposed development. However, where the offsite removal of surplus soil materials is required, removal under an Article 27 By-product notification will be prioritised.
- Where required for landscaping, imported Article 27 soils will be prioritised.
- All waste streams will be segregated onsite to ensure the correct recovery and recycling.
- As far as possible, site hording, facilities and welfare units will be repurposed from previous sites and projects to reduce waste and encourage a circular building environment.
- Materials which have a high percentage of recycled material or that have a low environmental impact will be prioritised where feasible.

Figure 8-1 Waste Hierarchy. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste (Source: EPA, 2020)

8.1 Opportunities for Prevention and Reduction

Opportunities for the prevention and reduction of waste will be considered throughout the construction phase of the proposed development. The Main Contractor will plan the construction process to eliminate/reduce waste; specifically, careful planning will minimise the

volume arising onsite, facilitate the use of reclaimed materials in the works, and influence wastage caused by poor materials handling.

Table 8-1 shows the targets for recovery during the construction phase of the proposed development based on data from the EPA's Circular Economy and Waste Statistics Highlights Report 2021 (EPA, 2023).

Table 8-1: Predicted Recovery Targets

Waste Type	Recycling	Energy Recovery	Backfilling**	Disposal
	%	%	%	%
Mixed C&D Waste	0%	0%	72%	28%
Segregated Wood, Glass, and Plastic	77%	21%	1%	1%
Bituminous Mixtures	49%	2%	40%	10%
Metals	100%	0%	0%	0%
Concrete, Brick, Tile, and Gypsum	45%	0%	52%	3%
Soil and Stone	0%	0%	94%	6%
Total	**8.0%**	**0.3%**	**84.7%**	**7.0%**

Note:

'**' = Backfilling refers to a recovery operation, carried out at authorised facilities, where suitable waste is used for reclamation purposes in excavated areas or for engineering purposes in landscaping and where the waste is a substitute for non-waste materials. It includes worked out quarries that are in the process of being restored or sites where soil and stone is imported to the Site to raise natural ground levels (EPA, 2023).

The predicted recovery targets will be reviewed and updated by the Main Contractor throughout the Construction Phase of the Proposed development. The waste management objective will be to prevent waste arising in the first place, and to re-use, recycle or recover waste materials where possible. A policy of 'as needed' ordering and strict purchasing procedures will also prevent waste arisings as far as possible.

8.2 Article 27 By-product

Where appropriate the removal of surplus materials as a by-product during the construction phase of the proposed development will be undertaken under an Article 27 By-product notification to the EPA. All statutory requirements of Article 27 By-product under the European Communities (Waste Directive) Regulations 2011 (S.I. No 126 of 2011) must be demonstrated to the satisfaction of the EPA. A separate assessment would be required to verify that the any surplus material meets the four conditions of Article 27 by-product prior to notifying the EPA or moving material off-site. It should be noted that the EPA advises that material should not

be moved off-site until a determination has been made by the EPA regarding the notified material.

8.2.1 Concrete

Concrete generated as part of the construction phase of the proposed development is expected to be clean, inert material. There will be no crushing of concrete on-site using a mobile crushing plant. Concrete will be segregated for removal off-site to an authorised permitted/licensed waste facility for recovery and / or recycling.

8.2.2 Bricks

Bricks generated as part of the construction phase of the proposed development will be segregated for removal off-site to an authorised permitted/licensed waste facility for recovery and / or recycling.

8.2.3 Tarmacadam

Where the removal offsite of tarmacadam is required, it will be segregated pending removal to an authorised permitted/licensed waste facility for recovery and/ or recycling.

8.2.4 Metal

Metals will be segregated into mixed ferrous, aluminium cladding, high grade stainless steel, low grade stainless steel etc., where practical and stored in skips and recycled off site at an authorised recycling facility.

8.2.5 Timber, Glass and Hard Plastic

Glass, hard plastic (e.g., material cut offs) and timber that is uncontaminated (i.e., free from paints, preservatives, glues etc.) will be segregated into dedicated skips/receptacles and recycled off-site at an authorised recycling facility.

8.2.6 Tiles, Ceramics and Gypsum

Tiles, ceramics and gypsum generated as part of the construction phase of the proposed development will be segregated into dedicated skips/receptacles and recycled off-site at an authorised recycling facility. Under no circumstances, will gypsum containing materials (e.g., plasterboard) be stored with mixed waste. The appointed Construction Environmental and Waste Manager or delegate will ensure that supply of new plasterboard is carefully monitored to minimise waste.

8.2.7 Waste Electrical and Electronic Equipment (WEEE)

Any WEEE will be stored in dedicated covered cages/receptacles/pallets pending collection for recycling.

8.2.8 Non-Recyclable Waste

C&D waste which is not suitable for reuse or recovery, such as polystyrene, some plastics and some contaminated cardboards, will be placed in separate skips or other suitable receptacles. Prior to removal from site, the non-recyclable waste skip/receptacle will be examined by the Construction Environmental and Waste Manager or delegate to determine if recyclable materials have been placed in there in error. If this is the case, efforts will be made to

determine the cause of the waste not being segregated correctly and recyclable waste will be removed and placed into the appropriate receptacle.

8.2.9 Inert / Non-Hazardous Soil and Stone

It is anticipated that up to 66,400m^3 of surplus soil and stone will require removal offsite in accordance with appropriate statutory consents and approvals.

Sampling and assessment of soil and materials is required to ensure that the materials are managed and removed offsite in accordance with all relevant statutory legislation.

Surplus soil generated as part of the construction works will be re-used, recycled, or sent for recovery, where appropriate and feasible.

Where suitable, surplus soil will be removed from the site for re-use, under an Article 27 By-product notification and all other statutory requirements (refer to Section 8.2).

Where the material cannot be re-used as a by-product and is deemed to be a waste it will be consigned to an authorised facility permitted to accept it.

The Main Contractor must be satisfied that there is sufficient data to meet with the legal requirement and industry standards to ensure that all waste and materials are compliantly managed and removed off-site in accordance with waste management legislation.

8.2.10 Other Non-Hazardous Wastes

Waste will also be generated from construction workers (e.g., organic/food waste, dry mixed recyclables (wastepaper, newspaper, plastic bottles, packaging, aluminium cans, tins and cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided on-site during the construction phase.

Where any other recyclable wastes such as cardboard and soft plastic are generated from packaging, these will be segregated at source into dedicated skips and removed off-site.

8.3 Hazardous Wastes

Fuels and oils are classed as hazardous materials. The storage of small quantities of fuels / oils will be required to allow for refuelling of machinery in the site compound and on an impermeable area with appropriate containment in place and in accordance with the procedures outlined in the CEMP (Enviroguide, 2024). Provided that these requirements are adhered to, and site crew are trained in the appropriate refuelling techniques, it is not expected that there will be any fuel/oil wastage at the Site.

Any paints, glues, adhesives, and other known hazardous substances will be stored in designated areas and will be sealed, bunded and clearly marked. They will generally be present in small volumes only, ordered as needed and therefore, associated waste volumes generated will be kept to a minimum.

It is not envisaged that there will be any other hazardous waste generated throughout the construction works. However, if generated onsite storage of any hazardous wastes produced (i.e., waste fuels/chemicals) will be kept to a minimum, with removal off-site organised on a regular basis. Storage of all hazardous wastes onsite will be undertaken so as to minimise exposure to onsite personnel and the public and to also minimise potential for environmental impacts. Hazardous wastes will be recovered, wherever possible, and failing this, disposed of

appropriately. Hazardous wastes produced (i.e., waste fuels/chemicals) will be kept to a minimum, with removal offsite organised on a regular basis by an appointed specialist hazardous waste contractor.

It is noted that storage of all hazardous wastes on-site will be undertaken to minimise exposure to on-site personnel and to also minimise potential for environmental impacts. A specialist hazardous waste contractor will be used to remove any hazardous waste arising.

8.3.1 Hazardous Waste Containing Asbestos

It is anticipated that there will be no asbestos containing materials (ACMs) generated during the construction phase of the proposed development.

If detected, the management of asbestos at the site and off-site transport will be undertaken by an appointed specialist contractor in accordance with an asbestos management plan for the works.

Asbestos and ACMs will be removed by the specialist contractor into laminated, double walled and sealed 1 tonne bags. Temporary storage of asbestos and ACMs will be stored, where required, in a dedicated, secure, dedicated quarantine skip for non-conforming materials. The Resource and Waste Manager or appointed delegate (i.e., Environmental Officer) will ensure that all drivers hold valid ADR training certificates, as required under the Carriage of Dangerous Goods Regulations, 2007. Waste will be transferred offsite by an authorised haulage contractor to an authorised waste transfer station for shipment and disposal in mainland Europe in accordance with Trans-Frontier Shipment (TFS) controls and legislative requirements.

Waste containing asbestos cannot be reused or recovered in any way and this material will require offsite removal and appropriate hazardous waste disposal to control the risks posed from asbestos fibres.

8.3.2 Hazardous Soil and Stone

Taking account of the design requirements for excavation it is anticipated that there will be no hazardous soil and stone waste requiring offsite disposal generated during the construction phase of the proposed development.

In the event that hazardous wastes, previously deposited wastes or previously unidentified contaminated soil are discovered onsite, the Main Contractor will immediately notify the Client or their representative so that the following procedures can be implemented:

- Immediate notification to the Client and facilitate any required inspection or visual assessment by the Client or their representative.
- The Environmental Consultant will attend site and complete an environmental site assessment. The scope of any required additional assessment will be agreed in advance with the Main Contractor and the Client.

On completion of the contaminated land assessment, if soil is identified as hazardous it will require offsite removal. The contaminated soil will be managed in accordance with the procedures outlined in this RWMP. Where additional soil sampling and classification for waste classification is required, the sampling, testing specification and classification will be

undertaken by the appointed Environmental Consultant in accordance with the waste classification procedures outlined in Section 7.4.1.

8.3.3 Invasive Species

While there were no non-native invasive species recorded at the site field survey undertaken by Scott Cawley on the 30th of March 2023, there is potential for species to spread to the site during the interim between the original surveys and commencement of construction following grant of planning permission (if received). A confirmatory pre-construction invasive species survey will be undertaken by a suitably qualified specialist to confirm the absence, presence and/or extent of any Third Schedule non-native invasive species within the Proposed Development site.

Any invasive plant species identified will be managed by the Main Contractor in accordance with statutory obligations and guidance including TII (formerly NRA) Guidelines on The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (TII, 2010) and in consultation with the Project Environmental Consultant (EcCoW), with consideration given to the prevention of spread of these plants. An Invasive Alien Species (IAS) Management Plan will be developed which will identity mitigation measures to prevent uncontrolled transportation and dispersion of invasive species from the Site. All works will be undertaken in accordance the mitigation measures outlined in the IAS Management Plan.

8.4 Segregation of Materials and Waste

Surplus materials / waste will be segregated on-site for the appropriate waste stream and disposal destination. The Construction Environmental and Waste Manager or appointed delegate will ensure waste streams are adequately identified. The segregation and management of materials / waste storage and stockpiling will be routinely inspected and audited by the Construction Environmental and Waste Manager and audit findings recorded in the waste management records.

C&D materials will be segregated onsite into labelled dedicated skips / receptacles. Where the onsite segregation of certain waste types is not practical, offsite segregation will be carried out an authorised waste recovery facility.

Dedicated bunded storage containers will be provided for hazardous wastes which may arise such as batteries, paints, oils, chemicals etc., if required.

Waste materials generated from the Site office and canteen will be segregated into general waste, biodegradable waste and dry recycling and stored in appropriate refuse bins in a dedicated storage area onsite, where it is practical.

In the event of material being temporarily stockpiled onsite for reuse in the Proposed development or in the event of material excavated pending waste classification for removal off-site, the material will be temporarily stockpiled in a designated area onsite. Stockpiles of different waste material will be located, maintained, and separated by a sufficient distance to prevent any inadvertent mixing of excavated material. All stockpiles will be managed in accordance with the measures outlined in the CEMP (Enviroguide, 2024). Furthermore, any heavily contaminated material/soil that may be encountered will need to be segregated in accordance with the measures outlined in the CEMP (Enviroguide, 2024) for appropriate sampling, waste classification and authorised removal off-site.

The Construction Environmental and Waste Manager will ensure that site personnel involved in the excavation and removal of waste soil materials at the Site are informed of and can identify the different waste types and categories of waste soil materials encountered onsite.

8.5 Storage of Waste Policy

Waste storage, fuel storage and stockpiling and movement are to be undertaken with a view to protecting the underlying soils and groundwater. Waste will be stored on-site, including non-hazardous soil and stone and inert C&D wastes, in such a manner as to:

- Prevent environmental pollution (bunded and/or covered storage, minimise noise generation and implement dust/odour control measures, as may be required);
- Maximise waste segregation to minimise potential cross contamination of waste streams and facilitate subsequent re-use, recycling, and recovery; and
- Prevent hazards to site workers and the public during Construction Phase (largely noise, vibration and dust).

9 MATERIALS SOURCE AND MANAGEMENT

The goal of the Materials and Source Management plan is to detail the management of the construction materials to ensure that, as far is reasonably practical, materials are used conservatively and waste is not generated. Section 8 above details the opportunities for prevention and reduction of construction waste on-site. A policy of 'as needed' ordering and strict purchasing procedures will also prevent waste arisings as far as possible.

9.1 Project Design

A Design Statement (MCORM, 2024) was submitted as a standalone document with the planning application. This Statement details the sustainability standards that the units have been designed to, as well as their future adaptability.

All buildings will be built using traditional construction methodologies and materials, and are highly insulated to Nearly Zero Energy Buildings (NZEB) standards. High quality, durable, and low maintenance and easily repairable materials will be used throughout the construction phase, which will ensure that minimal future maintenance of the buildings will be required.

The principles of waste management and the circular economy have been incorporated into both the Construction Phase and Operational Phase to ensure that maximum recycling, reuse, and recovery of waste with diversion from landfill, wherever possible, is being achieved.

9.2 Proposed Materials & Sourcing

Table 9-1 provides a non-exhaustive list of materials that may be used onsite during the construction activities.

Table 9-1 List of Materials

Material	Potential Use
Concrete Tiles	Roofing
Slate	Roofing
Timber	Roofing, Internal Construction
Concrete Blocks	Foundations, Walls
Sand	Concrete in Foundations, Walls, Roads, Paths
Cement	Concrete in Foundations, Walls, Roads, Paths
Gypsum	Drywall
Plaster	Drywall
Limestone	Cladding
Bricks	Cladding
Stone	Cladding
Copper	Pipework
Zinc	Pipework, Wiring
Insulation	Internal Construction
Metal	Foundations, Cladding

Material	Potential Use
Glass	Windows, Doors
(PVC/ Aluminium Powder-Coated)	Windows, Doors, Downpipes, Gutters
Solar Pannels	Roofing
Tarmacadam	Roads, Paths
Soil	Hardcore, Landscaping
Stone	Hardcore, Landscaping
Plastic	Roofing, Internal Construction

In order to prevent surplus and the waste of materials, a policy of 'as needed' ordering and strict purchasing procedures will be implemented.

Materials which have a high percentage of recycled material or that have a low environmental impact will be prioritised where feasible.

As detailed in Section 8 above, where possible excavated soils and stones will be re-used on site for fill, which will reduce the overall amount of soil and stones that needs to be imported on the site.

A Bill of Quantities (or similar) will be generated in line with the design drawings which have been submitted with the planning application, which will specify the exact materials and final finishes that will be required for the construction phase of the project. This Bill of Quantities (or similar) will be finalised on appointment of the Main Contractor.

9.3 Future Maintenance

The proposed development has been designed to ensure that maintenance is minimal, and that all materials used are high quality, in order to ensure longevity and reduce the costs associated with repair and replacement. As detailed in the Design Statement (MCORM, 2024), U-PVC window frames and Sedum roofs are proposed for this site because each are considered low maintenance.

Traditional construction methodologies and materials will be prioritised, that are easily available, replaceable, and recyclable in Ireland.

10 OFF-SITE REMOVAL OF WASTE

10.1 Removal and Disposal of Surplus Materials and Waste

Removal and recovery/recycling/disposal of all surplus materials and waste will be carried out in accordance with the Waste Management Act 1996 and as amended, S.I. No. 820/2007 - Waste Management (Collection Permit) Regulations 2007 and as amended and S.I. No. 821/2007 - Waste Management (Facility Permit and Registration) Regulations 2007 and as amended. This includes the requirement for all waste contractors to have a waste collection permit issued by the NWCPO. The nominated Environmental and Waste Officer will maintain a copy and a register of all waste collection permits on-site and will review these to ensure they have not expired. All permits must be reviewed prior to removal of any waste from the Site.

10.2 Material and Waste Management Procedure

All surplus materials and waste will be documented prior to leaving the Site. Surplus materials and waste will be weighed or logged by the contractor, either by weighing mechanism on the truck or at the receiving facility. These material / waste records will be maintained onsite by the Environmental and Waste Officer.

Prior to any removal of surplus materials / waste from the Site, written confirmation should be obtained from the receiving waste facility, that acceptance of the waste will be in accordance with all statutory legislation and the conditions of the receiving waste facility licence or permit. A copy of the waste acceptance letters will be included in Appendix E.

If the material / waste is being transported to another site, a copy of the Local Authority waste Certificate of Registration (COR) or permit, or EPA Licence for that site will be provided to the Environmental and Waste Officer.

If any soil is to be removed from the site under an Article 27 By-product notification of the European Communities (Waste Directive) Regulations 2011 (as amended), a separate assessment will be required to verify that all statutory requirements of the Article 27 By-product notification are met to the satisfaction of the EPA.

If the waste is being shipped abroad, a copy of the Transfrontier Shipping (TFS) notification document will be obtained from the National Transfrontier Shipment of Waste Office (NTFSO) (as the relevant authority on behalf of all local authorities in Ireland) and kept onsite along with details of the final destination. A receipt from the final destination facility of the material will be kept as part of the onsite waste management records. The Environmental and Waste Officer will undertake regular audits of waste paperwork to ensure traceability of all loads offsite to the final authorised destination facility.

To control off-site movements of waste a comprehensive docketing / waste tracking system should be implemented on-site. A daily record (including preparing and reconciling waste transfer note) of excavation at, and dispatch from the site should be maintained on-site.

All material excavated or segregated for off-site disposal should be transferred from site under chain of custody or waste dispatch dockets that should record:

- Date and time of transfer.
- Name of Carrier.
- Vehicle Registration and Name of Driver.
- European Waste Classification Code.
- Waste Classification and origin of material at the site.
- Weighbridge records at the site.
- Destination of load (receiving facility).

Chain of custody / waste dispatch dockets will be issued in triplicate. On dispatch the docket will be signed by the issuing operative and one copy retained onsite. The remaining two copies will accompany the load and be signed or stamped by the receiving facility.

To ensure complete Site records are maintained onsite, a copy of the completed chain of custody / waste dispatch docket will have a copy of the weighbridge docket from the receiving facility attached and retained with the waste management records for the Site. The completed chain of custody / waste dispatch docket will be maintained in the waste management file.

All loads will be checked prior to exiting the Site. In addition to logging the trucks of surplus materials / waste, all trucks will be visually inspected to ensure the loads are within the permissible haulage limits. All trucks and skips will be covered, and any loose debris removed prior to leaving the Site.

All necessary documentation requirements will be fulfilled prior to transfer of material / waste. A log of each load of materials / waste being transported offsite will be compiled that will include details of the waste collection permit or skip operator licence, load of materials, name of the destination facility and serial number on the accompanying waste docket. In addition, the stamped dockets and gate receipts will be cross checked against details of the outgoing load and details entered on the log sheet. A record of all necessary documentation including waste transfer documents and landfill gate receipts will be stored in the waste management file.

Some of the sub-contractors onsite will generate waste in relatively low quantities. The transportation of non-hazardous waste by persons who are not directly involved with the waste business, at weights less than or equal to 2 tonnes, and in vehicles not designed for the carriage of waste, are exempt from the requirement to have a waste collection permit (Ref. Article 30 (1) (b) of the Waste Collection Permit Regulations 2007 as amended). Any sub-contractors engaged that do not generate more than 2 tonnes of waste at any one time can transport this waste offsite in their work vehicles (which are not designed for the carriage of waste). However, they are required to ensure that the receiving facility has the appropriate COR / permit / licence and the waste generated must be ancillary to their own activities.

10.3 Off-Site Destinations for Materials and Waste Materials

All surplus materials and waste that will require transport offsite for further treatment or disposal will be undertaken in compliance with all statutory legislation and all materials / waste will only be transferred to appropriately permitted or licensed waste management facilities.

Prior to any removal of materials, written confirmation should be obtained from the proposed receiving authorised waste facility, that acceptance of the material will be in accordance with all waste management legislation and the conditions of the receiving facility licence or permit.

A copy of the receiving facility waste acceptance letters and the facility licence or permit will be included in Appendix E and Appendix F respectively.

Details of the nominated waste facilities proposed for each specified waste type will be provided to DLRCC once appointed by the Main Contractor in advance of construction works commencing onsite. The nominated waste facility template, which will be updated and provided to DLRCC in advance of construction works commencing onsite, is included in Appendix G.

The Construction Environmental and Waste Manager will be required to maintain a detailed register of the nominated waste facilities (i.e., facility location, waste facility permit / licence number and expiry / renewal date) proposed for each specified waste type and to obtain a copy of all waste facility licences/permits which will be retained within the waste management file.

The expiry dates on all licences and permits will be reviewed routinely by the Construction Environmental and Waste Manager as part of the waste audits. The Construction Environmental and Waste Manager will ensure that only facilities with a valid permit or licence a will be retained for offsite management of waste.

10.4 Collection and Transport of Materials and Waste

Only carriers/hauliers with a valid NWCPO issued Waste Collection Permit which authorises the transport of the applicable List of Waste (LoW) Code and delivery to the receiving facility will be appointed to transport the surplus materials and waste from the Site. A copy of the Waste Collection Permits will be included in Appendix H.

Details of the nominated carriers/hauliers proposed for each specified waste type will be provided to DLRCC once appointed by the Main Contractor in advance of construction works commencing onsite. The nominated carrier's / haulier's template, which will be updated and provided to DLRCC in advance of construction works commencing onsite, is included in Appendix I.

The Construction Environmental and Waste Manager will be required to maintain a detailed register of the waste haulage contractors (i.e., haulage contractor name, address, waste collection permit / skip operator licence number and expiry date) proposed for each specified waste type and to obtain a copy of all the applicable permits / licences which will be retained within the waste management file.

The expiry dates on all permits will be reviewed routinely as part of the waste audits. The Construction Environmental and Waste Manager will ensure that only haulage contractors with a valid permit will be retained for offsite removal of waste.

11 RECORD KEEPING, AUDITS, INSPECTIONS AND REPORTING

11.1.1 Materials and Waste Management Records

Records of all waste classification report(s) will be included in Appendix J of the CEMP and made available to DLRCC as required.

Detailed records of all materials and waste removed from the site will be maintained by the Main Contractor verifying the compliant management and removal off-site of all materials and waste in accordance with all relevant waste management legislation.

Records will be kept for all materials and waste which leave the site, either for reuse on another site, recycling, recovery or disposal. A Materials and Waste Register will be held onsite where a record will be kept of each consignment of materials and waste taken from the Site (refer to Appendix K). This spreadsheet will be maintained and made available for inspection by authorised officers of DLRCC. The details recorded for each consignment will, at a minimum, include:

- Date of removal of waste.
- Waste stream.
- Waste EWC code.
- Waste contractor details including NWCPO Permit Number.
- Vehicle registration.
- Driver name.
- Docket number for waste leaving the Site.
- Quantity of waste (in tonnes or litres as appropriate).
- Waste treatment (Reuse/Recycling/Disposal) including appropriate disposal/ recovery code.
- Transporter of waste (including transporters licence number);
- Final destination of the waste (including docket number or waste licence number); and
- Confirmation that waste was received/accepted by designated facility.

All necessary documentation requirements will be fulfilled prior to transfer of material.

Similar records will be maintained onsite and available for inspection detailing all materials exported under any EPA Article 27 notifications.

A copy of the receiving waste facility permits and licences with all appendices will be retained onsite (refer to Appendix F).

A copy of the NWCPO waste collection permit with all appendices will also be retained onsite (refer to Appendix H).

As well as the Waste Management Log Sheet (refer to Appendix K), the Construction Environmental and Waste Manager or delegate will record the following:

- Materials / waste removed for reuse offsite.
- Materials / waste removed for recycling.

- Materials / waste removed for disposal; and
- Reclaimed materials / waste brought to the Site for reuse (if required).

All materials and waste will be documented prior to leaving the Site. Waste volumes will be recorded by the Main Contractor, either by obtaining the weighbridge weight from at the destination facility or by converting cubic meters to tonnes. In all cases the number of loads will be recorded so that these can be cross checked and the weights obtained from the destination facility. These waste records will be provided and maintained onsite by the Construction Waste Manager and provided to the Main Contractor for auditing. A receipt from the final destination of the material will be kept as part of the onsite waste management records (refer to Appendix L) and demonstration of disposal will be provided to the Client within 48 hours unless otherwise agreed with the Main Contractor

For each movement of surplus materials and waste on or offsite, a signed docket will be obtained by the Construction Environmental and Waste Manager or delegate from the haulage contractor, detailing the date, vehicle registration, driver name and signature weight and type of the material and the source and destination of the material (refer to Appendix L). This will be carried out for each material type. This system will also be linked with the delivery records. In this way, the percentage of construction waste generated for each material can be determined. The system will allow the comparison of these figures with the targets established for the recovery, reuse and recycling of construction waste and to highlight the successes or failures against these targets. Certificates of recycling/recovery will be obtained from the facility to which the waste has been consigned, in order to confirm receipt and trace the waste to end destination. This documentation will be cross checked with removal dockets to ensure that all waste removed from the Site has been accounted for and accepted at end destinations.

11.1.2 Monitoring Audits and Inspection

The Construction Environmental and Waste Manager or delegate will be responsible for conducting waste inspections at the Site during the construction phase of the proposed development to ensure the compliance with waste management procedures as outlined above to ensure that all procedures are strictly adhered to.

Waste skips/receptacles and stockpiles (if required) will be inspected daily by the Construction Environmental and Waste Manager to ensure materials are segregated onsite for the appropriate waste stream and disposal destination.

Regular audits will be undertaken by the Construction Environmental and Waste Manager or delegate, which will include checking the following in relation to waste management onsite:

- Segregation and storage practices.
- Recycling rates.
- Litter prevention practices.
- Documentation for waste removed.
- Documentation for waste received at destination facilities.
- Centrally recorded waste data.
- Waste collection permits for all waste hauliers used.
- Waste management facility permits/licences for all waste management facilities used.

- A review of all waste facility and collection permits/licences being used for waste from the Site will be carried out routinely to ensure that all permits and licences are not within 6 months of expiration. Any permits/licences within 6 months of the expiry date will be reviewed in detail.

Daily Site inspections will be carried out to check for housekeeping, litter, and correct segregation. More detailed waste audits will be carried out on a bi-weekly basis. Where poor segregation practices are observed, littering is apparent or housekeeping falls below standard, a non-conformance will be raised with the Construction Environmental and Waste Manager for corrective action.

Regular checks will be carried out to ensure that all waste is accounted for, and full load traceability exists. Where gaps are identified in the records available, a root cause analysis will be carried out and a preventive measure put in place to ensure that this does not happen in future. Any missing documentation will be sought from the waste haulier and the waste destination in the event that it is not present for audit and inspection.

11.1.3 Reporting

Monthly reports regarding the management of the waste during works, will be forwarded electronically to the Client by the Resource and Waste Manager as agreed.

Where soil sampling and classification of soil waste is undertaken, the appointed Environmental Consultant (EGC) will prepare a comprehensive waste classification assessment report(s) incorporating all support documentation and drawing. The waste classification reports will be included in Appendix J.

In the event that hazardous wastes, previously deposited wastes or previously unidentified contaminated soil are discovered onsite, that material will be segregated and stored appropriately for sampling and classification as per Section 7.4.1. A hazardous waste/soil management plan will be designed and implemented by the appointed Project Environmental Consultant (EGC) detailing the estimated volumes, mitigation measures, destinations for the authorised disposal/ treatment and the designated authorised contractors for the movement of the material. The soil management plan(s) will also be included in Appendix J.

11.1.4 Non-Conformance and Corrective Preventative Action

Non-conformances may be raised through site inspection or audit, or by any site personnel by reporting a non-conformance to the Construction Environmental and Waste Manager.

Non-conformances will be recorded and investigated to determine the root cause, and Corrective Action Requests (CARs) will be issued to ensure that prompt action is agreed and committed to, with a view to the effective resolution of any deviations from the RWMP requirements or any environmental issues.

CARs may be raised as a result of:

- An internal or external communication.
- An internal audit.

- A regulatory audit or inspection.
- A suggestion for improvement.
- A complaint.
- An incident or potential incident.

All corrective action requests will be numbered and logged.

Corrective Action Requests will only be closed out on sign off by the Construction Environmental and Waste Manager that the required corrective actions have been completed.

12 REFERENCES

Buildings Research Establishment (BRE), 2012. BRE Waste Benchmark Data.

Department of Environment and Local Government, 1998. Waste Management – Changing Our Ways, A Policy Statement.

Department of Environment, Communities and Local Government, 2012. A Resource Opportunity - Waste Management Policy in Ireland.

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Department of the Environment, Climate and Communications, 2020. A Waste Action Plan for a Circular Economy – Ireland's National Waste Policy 2020-2025.

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European Communities (Waste Directive) Regulations 2011 (SI 126 of 2011) as amended 2011 (S.I. No. 323 of 2011) and 2016 (S.I 315 of 2016).

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Northern Ireland Environment Agency, 2021. Version 1.1 NI (EU Exit): Guidance on the Classification and Assessment of Waste (1st Edition v1.1.NI) Technical Guidance WM3.

One Touch Data Limited, 2019. HazWasteOnline™ Application http://www.hazwasteonline.com

Regional waste Management Planning Offices, 2023. National Waste Management Plan for a Circular Economy 2024-2030

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

UK Environment Agency, 2021. Version 1.1 NI (EU Exit): Guidance on the Classification and Assessment of Waste (1st Edition v1.1.NI) Technical Guidance WM3.

Waste Management Act 1996 (No. 10 of 1996) as amended 2001 (No. 36 of 2001), 2003 (No 27 of 2003) and 2011 (No. 20 of 2011).

Waste Management (Collection Permit) Regulations (S.I No. 820 of 2007) as amended 2008 (S.I No 87 of 2008), 2015 (S.I. No. 197 of 2015) and 2016 (S.I. No. 24 and 346 of 2016).

Waste Management (Facility Permit and Registration) Regulations 2007,(S.I No. 821 of 2007) as amended 2008 (S.I No. 86 of 2008) as amended 2014 (S.I No. 320 and No. 546 of 2014) and as amended 2015 (S.I. No. 198 of 2015).

Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) as amended 2010 (S.I. No. 350 of 2010).

Waste Management (Packaging) Regulations 2014 (S.I. 282 of 2014) as amended 2015 (S.I No 542 of 2015).

Waste Management (Planning) Regulations 1997 (S.I. No. 137 of 1997).

Waste Management (Landfill Levy) (Amendment) Regulations 2019 (S.I. No. 182 of 2019) .

Waste Management (Food Waste) Regulations 2009 (S.I. 508 of 2009), as amended 2015 (S.I. 190 of 2015) and European Union (Household Food Waste and Bio-waste) Regulation 2015 (S.I. No. 191 of 2015).

Waste Management (Hazardous Waste) Regulations, 1998 (S.I. No. 163 of 1998) as amended 2000 (S.I. No. 73 of 2000).

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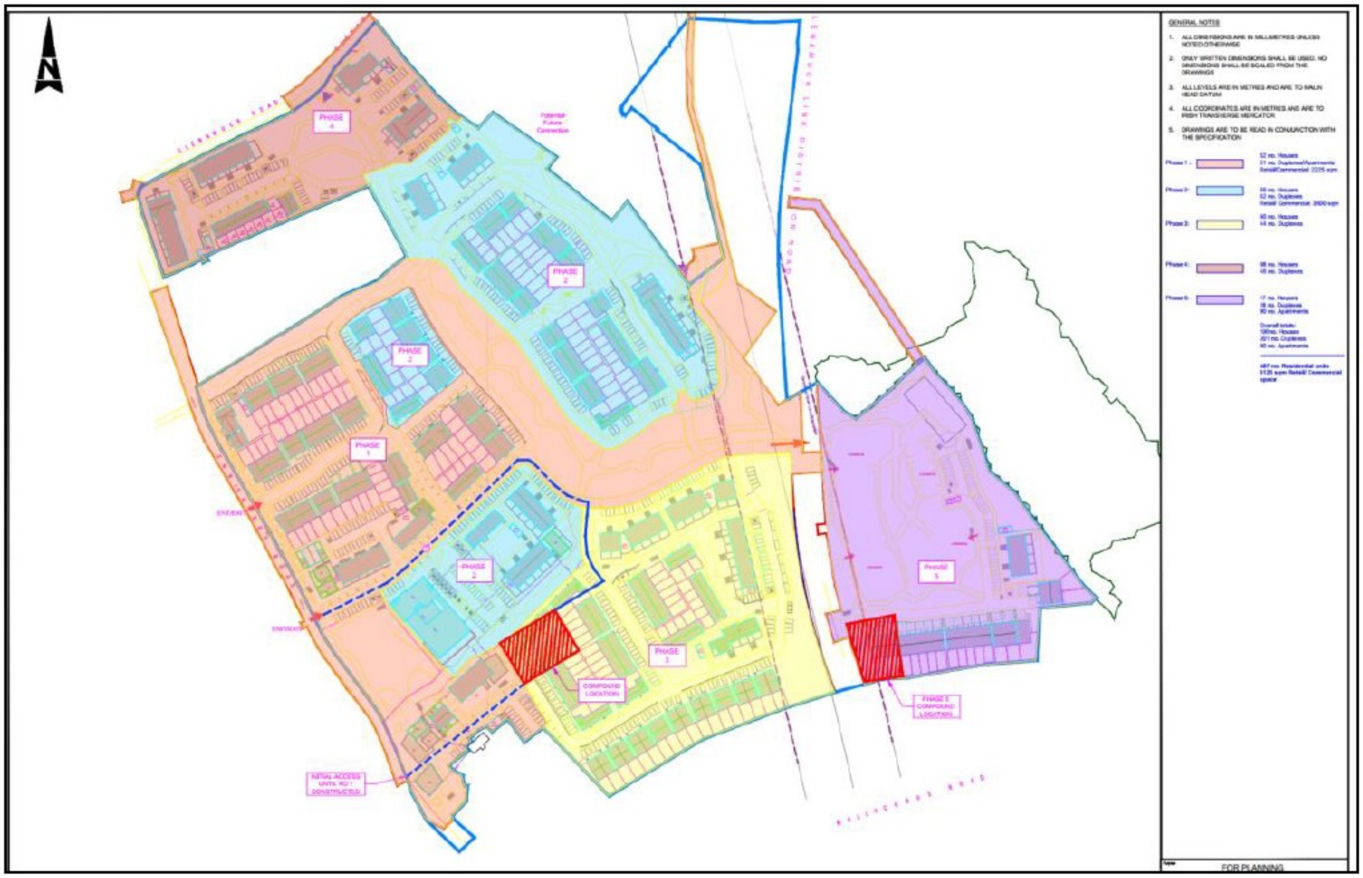
Environmental Consultancy Services

Appendix A - Project Organogram

Appendix B - Project Programme

LRD Construction	Units	Commercial	Months	Years	Start	End
Phase1	83	2,225	18	1.5	Feb -25	Jul -26
Phase 2	121	3,900	23	1.92	Mar-26	Jan -28
Phase3	104		19	1.58	Jun -27	Dec -28
Phase4	54		11	0.92	Apr -28	Feb -29
Phase5	125		20	1.67	Jun -28	Jan -30
Total Quantum & Project Time	487	6,125	60	5		

Appendix C - Site Construction Compound Layout


GENERAL NOTES
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE
2. ONLY WRITTEN DIMENSIONS SHALL BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS
3. ALL LEVELS ARE IN METRES AND ARE TO MALIN HEAD DATUM
4. ALL COORDINATES ARE IN METRES AND ARE TO IRISH TRANSVERSE MERCATOR
5. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION
Phase 3:
Phase 4:
PHASE 1
PHASE 2
PHASE 3
PHASE 4
PHASE 5
COMPOUND LOCATION
PHASE 5 COMPOUND LOCATION
INITIAL ACCESS UNTIL RD I CONSTRUCTED
FOR PLANNING

Appendix D - Site Contact Details

Role	Name	Email	Contact Number
Project Manager			
Construction Environmental and Waste Manager			
Environmental and Waste Officer			

Appendix E - Letters of Acceptance

Appendix F - Approved Receiving Waste Facility Permits / Licences

Appendix G - Nominated Waste Facilities

Waste Type	Facility Location	Waste Facility Permit / Licence No.	Expiry Date
Concrete	J Ryan Haulage Ltd., Hartwell Upper, Kill, Co Kildare	WFP-KE-23-0120-01	11/10/2028
Timber	Padraig Thornton Waste Disposal Limited, Unit 28, John F Kennedy Road, JFK Industrial Estate, Naas Road, Dublin 12, Dublin.	W0227-01	N/A
Plastic	Thorntons Recycling Centre (Ballyfermot), Killeen Road, Ballyfermot, Dublin 10	W0044-02	N/A
Gypsum-based construction material	G & J O'Neill Enterprises Ltd., Unit 74A Naas Industrial Estate, Naas, Co Kildare	WFP-KE-21-0106-01	26/01/2026
Mixed metals	Padraig Thornton Waste Disposal Limited, Dunboyne Industrial Estate, Dunboyne, Meath	W0206-01	N/A
Mixed C&D Wastes	Callan Recycling Ltd., Drinnanstown North Rathangan, Co. Kildare	WFP-KE-22-0114-01	06/12/2027
Bulky Municipal Waste	Thorntons Recycling Centre (Ballyfermot), Killeen Road, Ballyfermot, Dublin 10	W0044-02	N/A
Non-Hazardous Soil and Stone	Murphy Concrete Manufacturing Limited, Hollywood Great, Nags Head, The Naul, County Dublin	W0129-02	N/A

Appendix H - National Waste Collection Permits

Appendix I - Nominated Haulage Contractors Template

Waste Type	Haulage Contractor	Waste Collection Permit/Skip Operator Licence No.	Expiry Date
Concrete	Pentico Contracting Limited., Marella, Enniscrone, Co. Sligo	NWCPO-20-12441-01	20/08/2025
Timber	Padraig Thornton Waste Disposal Ltd., Unit S3B Henry Road, Park West Business Park, Dublin 12.	NWCPO-09-01190-05	25/06/2020*
Plastic	Padraig Thornton Waste Disposal Ltd., Unit S3B Henry Road, Park West Business Park, Dublin 12.	NWCPO-09-01190-05	25/06/2020*
Gypsum-based construction material	Padraig Thornton Waste Disposal Ltd., Unit S3B Henry Road, Park West Business Park, Dublin 12.	NWCPO-09-01190-05	25/06/2020*
Mixed metals	Padraig Thornton Waste Disposal Ltd., Unit S3B Henry Road, Park West Business Park, Dublin 12.	NWCPO-09-01190-05	25/06/2020*
Mixed C&D Wastes	Pentico Contracting Limited., Marella, Enniscrone, Co. Sligo	NWCPO-20-12441-01	20/08/2025
Non-Hazardous Soil and Stone	Cool Cat Plant Services Ltd., Knocksedan, Swords, Co. Dublin	NWCPO-14-11321-03	09/08/2026

Note:
'*' = Decision review of waste collection permit delayed due to staff implications of the COVID-19 pandemic. Correspondence from NWCPO that the existing permit is valid pending decision on application. The permit will be reviewed prior to the removal of material offsite.

Appendix J - Soil Management Plan (s) / Waste Classification Report (s)

Appendix K - Waste Management Log

LoW Code	Description	Volume Generated (tonnes)	Prevention (tonnes) (non-waste)	Reused (tonnes) (non-waste)	Recycled (tonnes) (waste)	Recovered (tonnes) (waste)	Disposed (tonnes) (waste)	Unit Cost Rate (€/tonne)	Total Cost (€)
17 01 01	Concrete								
17 01 02	Bricks								
17 01 03	Tiles and Ceramics								
17 02 01	Wood								
17 02 02	Glass								
17 02 03	Plastic								
17 03 02	Bituminous Mixtures								
17 04 01	Copper, Bronze, Brass								
17 04 02	Aluminium								
17 04 03	Lead								
17 04 04	Zinc								
17 04 05	Iron and Steel								
17 04 06	Tin								
17 04 07	Mixed Metals								
17 04 11	Cables								
17 05 04	Soil and Stone								
17 06 04	Insulation Material								
17 08 02	Gypsum								
17 09 04	Mixed C&D Waste								
17 01 06*	Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing hazardous substance								
17 02 04*	Glass, plastic and wood containing or								

	contaminated with hazardous substances								
17 03 01*	Bituminous mixtures containing coal tar								
17 04 09*	Metal waste contaminated with hazardous substances								
17 05 03*	Soil and stones containing hazardous substances								
17 06 05*	Construction materials containing asbestos								
	Other resources (nonwaste materials) (specify as needed)								
	Other wastes (specify as needed)								

No.	Date	Haulage Contractor	National Waste Collection Permit No.	Vehicle Registration	LoW Code	Waste Collection Docket No.	Destination Facility	Facility Permit/Licence No.	Destination Facility Docket No.	Quantity (Tonne)

Appendix L - Waste Dockets / Landfill Gate Receipts