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RESOURCE & WASTE MANAGEMENT PLAN

FOR

CAIRN HOMES PROPERTIES LTD
45 MESPIL ROAD
DUBLIN 4

RELATING TO A PROPOSED

RESIDENTIAL DEVELOPMENT

AT

CLONBURRIS SDZ
PHASE T3

23rd November 2022



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1.0 INTRODUCTION

This document presents the Resource and Waste Management Plan (RWMP) for the control, management and monitoring of resources and waste associated with the Clonburris SDZ T3 development.

The RWMP has been prepared to demonstrate how the Construction Phase will comply with the following relevant legislation, relevant Best Practice Guidelines and Local Authority Waste Management Policies:

Waste Management Acts 1996-2011.

Waste Management (Collection Permit) Regulations 2007 (SI No. 820 of 2007)

Waste Management (Collection Permit) Amendment Regulations 2008 (SI No. 87 of 2008)

EPA Best Practice Guidelines for the preparation of resource management plans for construction and demolition projects, April 2021

The Eastern-Midlands Region Waste Management Plan

South Dublin Development Plan 2022-2028

EPA "Guidance on Soil and Stone By-Products in the context of Article 27 of the European Communities (Waste Directive) Regulations – Version 3 June 2019

The Key Aspects of this RWMP are:

- 1 To maximise the use of resources in the Design and Construction Phases and to minimise the generation of waste with regard to the following principals:

Green Procurement and Design
Resource Re-Use, Recycling and Management
Waste Prevention and Segregation

- 2 To maximise the segregation of construction and demolition waste materials on-site to produce uncontaminated waste streams for re-use and recycling both on-site and off-site.

2.0 SOUTH DUBLIN DEVELOPMENT PLAN 2022-2028 WASTE POLICIES

Section 12.11.4 (iv) of the SDCC Development Plan 2022-2028 includes the following requirements:

Construction and demolition waste management plans should be submitted as part of development proposals for projects in excess of any of the following thresholds:

New residential development of 10 units or more;

New developments other than above, including institutional, educational, health and other public facilities, with an aggregate floor area in excess of 1,250 sq metres;

Demolition / renovation / refurbishment projects generating in excess of 100 cubic metres in volume of C&D waste;

Civil engineering projects generating in excess of 500 cubic metres of waste materials used for development works on the site.

A Construction and Demolition Waste Management Plan, as a minimum, should include provision for the management of all construction and demolition waste arising on site, and make provision for the reuse of said material and / or the recovery or disposal of this waste to authorised facilities by authorised collectors. Where appropriate, excavated material from development sites should be reused on the subject site.

3.0 THE CIRCULAR ECONOMY

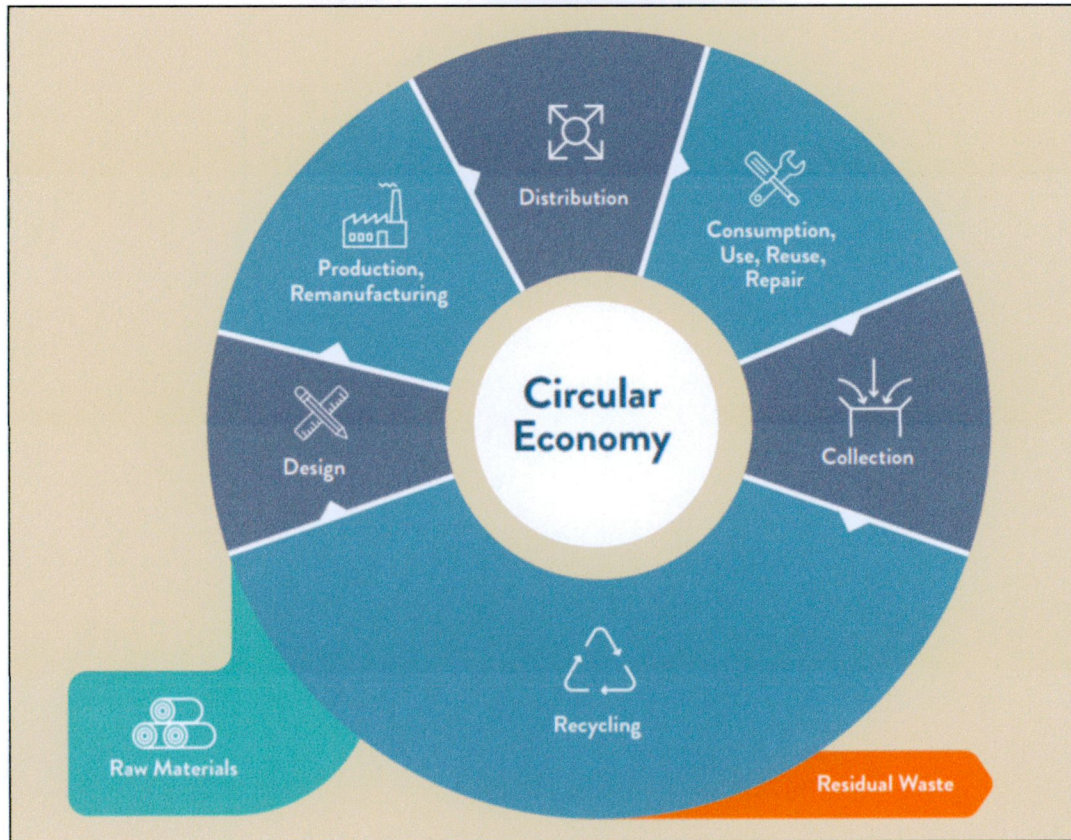
Ireland's national waste policy is 'A Waste Action Plan for A Circular Economy – Ireland's National Waste Policy 2020 – 2025'. The policy, published September 2020, is intended to move Ireland toward a circular economy in which focus is shifted away from waste disposal, favouring circularity and sustainability by identifying and maximising the value of material through improved design, durability, repair and recycling. By extending the time resources are kept within the local economy, both environmental and economic benefits are foreseen.

The proposed development will implement the above policy as follows:

- Re-Use on-site of all excavated soils and stones as fill material and as landscaping material.
- The purchase of construction materials as needed to prevent over supply and potential for damage whilst in storage.
- The segregation of construction waste streams into separate storage containers to maximise the potential for the re-use of the materials.
- The import of Article 27 soils where possible.

- The Developer of the Project is committed to implementing the relevant aspects of the Circular Economy Policy throughout the construction phase of the development.

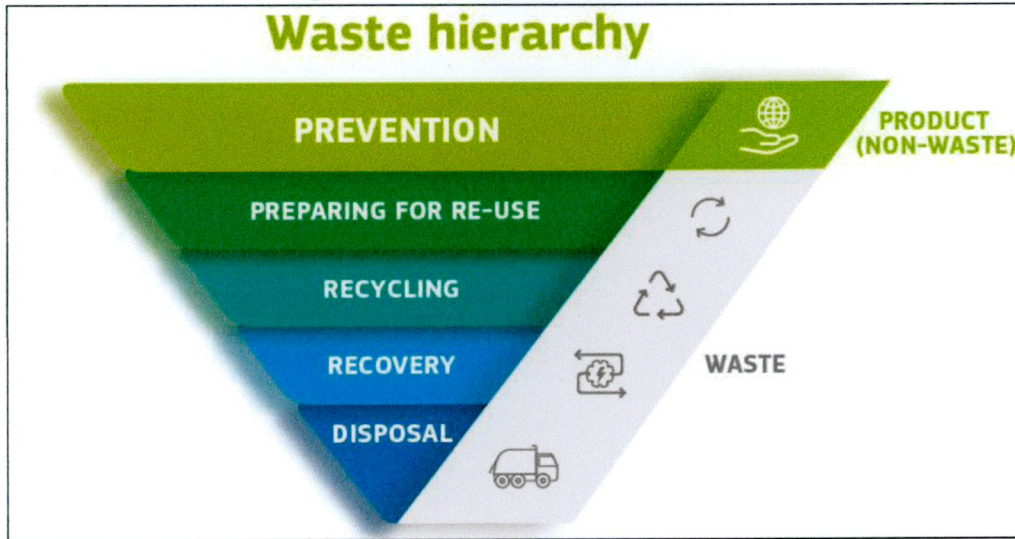
FIGURE 1 THE CIRCULAR ECONOMY



It is Cairn Homes intention to conform to the waste hierarchy (Figure 2), whereby waste prevention is the most preferred strategy. Where waste generation is unavoidable, re-use is the most preferred fate, followed by recycling and then energy recovery, with disposal (e.g. to landfill) being the least preferred fate.

Appendix II & III include Cairn Homes Sustainability Policy and Climate Action Policy

Figure 2 The Waste Hierarchy



4.0 PROJECT DESCRIPTION

4.1 Proposed Development

The development will consist of the construction of 157 no. dwellings on a site of c.3.45 hectares in the Clonburris South-West Development Area of the Clonburris Strategic Development Zone (SDZ) Planning Scheme 2019 as follows:

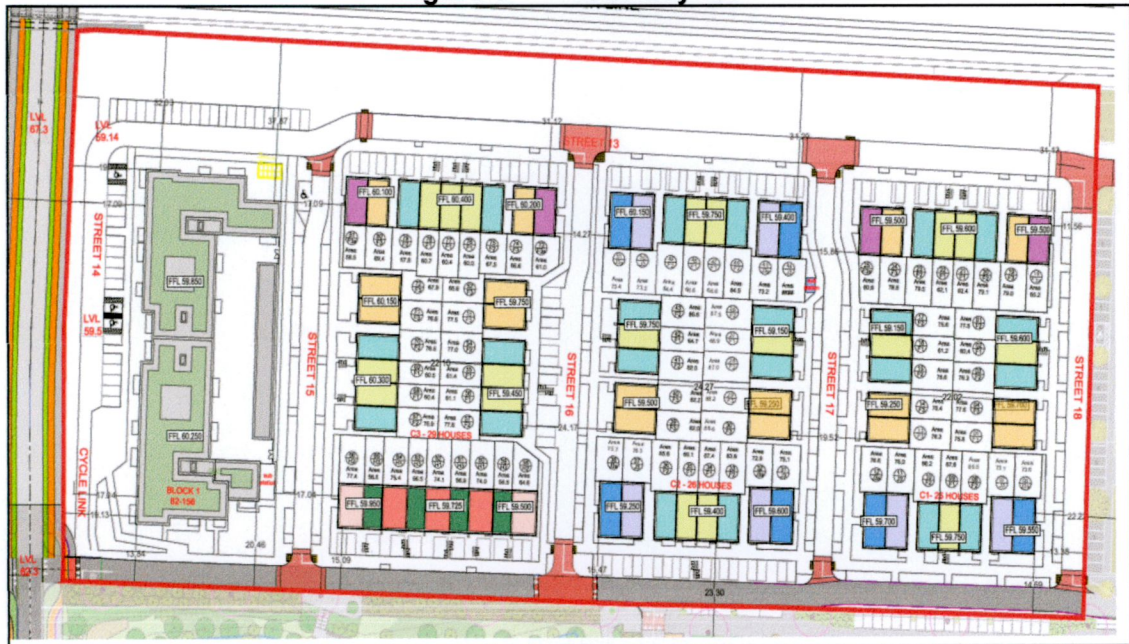
81 no. houses comprising 4 no. 2-bedroom houses, 65 no. 3-bedroom houses and 12 no. 4-bedroom houses (all 2-no. storey with associated private open space and car parking);

76 no. apartment units consisting of 26 no. 1-bedroom and 50 no. 2-bedroom units within Block 1 (4 no. storeys);

Vehicular access will be provided from the permitted street under SDZ21A/0022 and the permitted Clonburris Southern Link Street (SDZ20A/0021) and R113 (Fonthill Road) to the east;

All ancillary site development works including footpaths, landscaping boundary treatments, public and private open space areas, car parking (170 no. spaces) and bicycle parking (170 no. spaces), single-storey ESB sub-stations, bin and bicycle stores and all ancillary site development/construction works.

Figure 3 Site Layout



4.2 Site History

The subject site is comprised of undeveloped lands.

4.3 Existing Structures

There are no existing structures or hard surfaces on the site.

4.4 Site Clearance

The site is currently comprised of former greenfield pasture lands and hedgerow vegetation. Vegetation and soils shall be stripped to accommodate the development. Top soils shall be stored separately to sub soils.

4.5 Material Balance Cut and Fill

It is estimated that 9500m³ of topsoil shall be excavated to facilitate the development. Of this c. 9000m³ shall be retained on site and re-used and c. 500m³ shall be exported off-site.

It is estimated that c. 909m3 of subsoils shall be excavated to facilitate the development all shall be re-used on-site.

4.6 Site contamination

Soils at the site have been sampled, analysed and classified by *Ground Investigations Ireland Report Ref. 11542-03-22*. The analytical results indicate that soils at the site are non-hazardous.

The assessment of the sample results using the *HazWasteOnLine* Tool has classified all soil samples as being non-hazardous.

Table 1 Individual Sample Waste Category

Sample ID	Material Type	Sample Date	LoW Code	Waste Category
TP01 0.50	Soil & Stone	25/04/2022	17 05 04	Category A
TP03 0.70	Soil & Stone	25/04/2022	17 05 04	Category A
TP05 0.70	Soil & Stone	25/04/2022	17 05 04	Category A
TP07 1.20	Soil & Stone	25/04/2022	17 05 04	Category A
TP09 0.70	Soil & Stone	25/04/2022	17 05 04	Category A
TP11 0.70	Soil & Stone	25/04/2022	17 05 04	Category A
TP13 0.50	Soil & Stone	25/04/2022	17 05 04	Category A
TP15 0.70	Soil & Stone	25/04/2022	17 05 04	Category A
TP17 0.70	Soil & Stone	25/04/2022	17 05 04	Category A
TP19 1.70	Soil & Stone	25/04/2022	17 05 04	Category A
TP21 1.20	Soil & Stone	25/04/2022	17 05 04	Category A
TP23 1.00	Soil & Stone	26/04/2022	17 05 04	Category C
TP25 0.50	Soil & Stone	26/04/2022	17 05 04	Category A
TP27 1.50	Soil & Stone	26/04/2022	17 05 04	Category A
TP29 0.70	Soil & Stone	26/04/2022	17 05 04	Category A
TP31 1.60	Soil & Stone	26/04/2022	17 05 04	Category A
TP33 0.50	Soil & Stone	26/04/2022	17 05 04	Category A
TP35 1.00	Soil & Stone	26/04/2022	17 05 04	Category A
TP37 1.20	Soil & Stone	26/04/2022	17 05 04	Category A
TP39 0.70	Soil & Stone	26/04/2022	17 05 04	Category A
TP41 0.70	Soil & Stone	26/04/2022	17 05 04	Category A
TP43 0.50	Soil & Stone	26/04/2022	17 05 04	Category A

4.7 Invasive Species

Species listed on the *Third Schedule of S.I. 477/2011 (as amended)*

An ecological survey conducted by *McCarthy Keville O'Sullivan* did not identify the presence of invasive species at the site.

4.8 Asbestos

Asbestos was not found to be present in any of the soils sampled.

4.9 Project Phasing

The sequence of development works are detailed below in Table 2.

Table 2 Sequence of Construction Works

Activity Sequence	General Description
Site access and security	Set up site access point and erect site hoarding
Identification of Existing Utility Services	Set up bunting, mark location of live services, including E.S.B., Gas etc.
Facilities	Install site offices and welfare units
Compounds	Establish materials storage compound and waste management compound
Removal of Vegetation	e.g. Trees and vegetation
Site Preparation	Soil stripping, stockpiling, export
Infrastructure installation	Drainage, Utility ducts, power, internal roads
Substructure	Foundations
Superstructure	Frames
External Envelope	Place façade to superstructure
Internal Finishes	Mechanical & Electrical
External Landscaping	Hard and soft landscaping, road surfacing

5.0 RWMP ROLES AND RESPONSIBILITIES

5.1 Project Director / Manager

The Project Director will be responsible for the overall implementation of the RWMP and providing the budget for its implementation and management. The Project Director will ensure that the reporting and recording requirements are met and all necessary resources are in place to support the implementation of the RWMP from Design Stage to Project Completion.

5.2 Resource and Waste Manager

The Resource and Waste Manager (RWM) will be responsible for:

- Implementing all aspects of the RWMP throughout the Construction Phase.
- Assisting the Project Manager on the implementing of the aspects of the Circular Economy.
- Ensuring that all resources are managed throughout the Construction Phase
- Recording the volumes and types of construction wastes generated.
- Communicating with the Local Authority on waste related matters and issuing of waste records.
- Management of the waste storage compound to ensure that all construction waste streams are stored separately and that cross-contamination does not occur.
- Maintaining a file of all Waste Collection Permits and Waste Facility Permits / Waste Licences that each waste load is exported to.
- Ensuring that all waste loads exiting the site are contained in a vehicle displaying an appropriate NWCPO Permit number.
- Maintaining a receipt of each waste load delivered to authorised facilities.
- Identifying and reporting on damaged construction materials and identifying how damage to resources and materials shall be prevented.
- Preparation of monthly waste management report detailing waste volumes generated, re-use and recycling rates and details on damaged raw materials and how they can be returned for repair and future re-use.
- Conducting Resource and Waste Management Audits

- Communicating with the EPA regarding Article 27 By-Product determinations
- The name and contact details of the Resource and Waste Manager shall be forwarded to the Waste Management Section of the Local Authority on appointment.

5.3 Site Personnel

All personnel on site will be responsible for the effective implementation of the RWMP. All staff will receive Induction and Tool-Box training on resource management and waste prevention, segregation and disposal.

5.4 Gate Person

Gate Person duties will include the inspection of all vehicles exiting site with waste to ensure that they have a Waste Collection Permit (WCP) Number displayed on the side of the vehicle.

If the vehicle does not have a WCP Number displayed, the vehicle will be refused exit and the RWM will ensure that the waste load is returned to the site area from where it came.

5.5 Staff Training

Copies of the RWMP will be made available to all relevant personnel on site. The RWM will arrange for all site personnel and contractors to be instructed about / receive training on the objectives of the RWMP and materials management, and be informed of the responsibilities that fall upon them as a consequence of its implementation. The topics to be covered will include;

- Project programme and requirements
- Health and Safety requirements
- RWMP
- Materials to be segregated
- Segregation systems and protocols
- Arrangement for the storage and handling of reusable materials and recyclables
- Document control requirements

Where source segregation and materials re-use techniques apply, each member of staff will be given instructions on how to comply with the RWMP and will be displayed for the benefit of site staff.

Table 3 Principal Project Staff

Title	Name	Contact Details
Project Director	Brian Heverin	Brian.heverin@cairnhomes.com
Contracts Manager	Sean Ferguson	Sean.ferguson@cairnhomes.com
Resource & Waste Manager	Francis Kelly	Francis.kelly@cairnhomes.com
Engineer	TBC	-
Quantity Surveyor	David Walshe	David.walshe@cairnhomes.com
Design Lead	Steven O'Brien	Steven.obrien@cairnhomes.com

6.0 RESOURCE AND WASTE MANAGEMENT DESIGN APPROACH

This section provides details on how resource optimisation and the management and minimisation of waste streams shall be implemented from design phase through to completion of the project.

6.1 Site Preparation

- Site hoardings, fencing, offices and staff welfare units shall be re-used from previous projects.
- The use of concrete for ground surfaces will be minimised in the site compound.

6.2 Re-Use of existing site elements

- Aggregates from other sites where available shall be re-used to form hard surfaced areas in the site compound and staff car-park.
- Top and sub-soils shall be retained on-site and re-used for landscaping purposes

6.3 The Use of Recycled materials and surplus materials

- Recycled aggregates will be re-used where possible to minimise the use of virgin materials.
- The use of asphalt with a percentage of recycled asphalt contained within it shall be investigated and used where possible.
- Where material surpluses arise, they shall be stored to prevent damage and re-used on other projects or returned to the supplier.

6.4 Materials Procurement

- Suppliers that can supply low environmental impact products and materials shall be identified.
- Identify recycled materials to be used on the project.
- Materials will not be over-ordered to reduce over-storage and to minimise potential of damage to materials on-site.
- Material suppliers will be requested to take back damaged materials for repair and re-use.
- Material suppliers shall be asked to minimise packaging on all materials.

6.5 Off-Site Construction

The use of pre-constructed building elements is an efficient process that minimises the generation of construction site waste.

- Steel frames and wall facade panels shall be constructed off-site and assembled on-site.
- Bathroom Pods shall be constructed off-site
- Balconies shall be constructed off-site

6.6 SOIL MANAGEMENT STRATEGY

Planning the Optimal Site Level

Cairn undertake specialist surveys of the levels of our sites before we submit a planning application to determine the most appropriate ground level for the development. In doing so we reduce the requirement for either excavating material or bringing additional soil to site to bring the site to the designed finished floor levels. This intervention at the design stage directly impacts our carbon footprint by reducing the number of heavy goods vehicle journeys to and from site carrying soil.

Circular Economy: Targeting Net Zero Soil Import

Once on site, wherever possible, the required level is achieved by transferring soil within the site rather than importing and exporting soil. This process, known as “cut and fill” is used on all our sites however this year we have adopted an enhanced approach. Our civil engineers are working with specialist consultants utilising innovative technology to create detailed surveys and maps of levels for three pilot sites. This approach gives us the ability to work towards net zero soil import and export. Where this is not possible, we leverage our total landbank using our excess soil for fill on other sites, with the end goal of sending as little soil to landfill as possible.

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Soil Stabilisation on Site

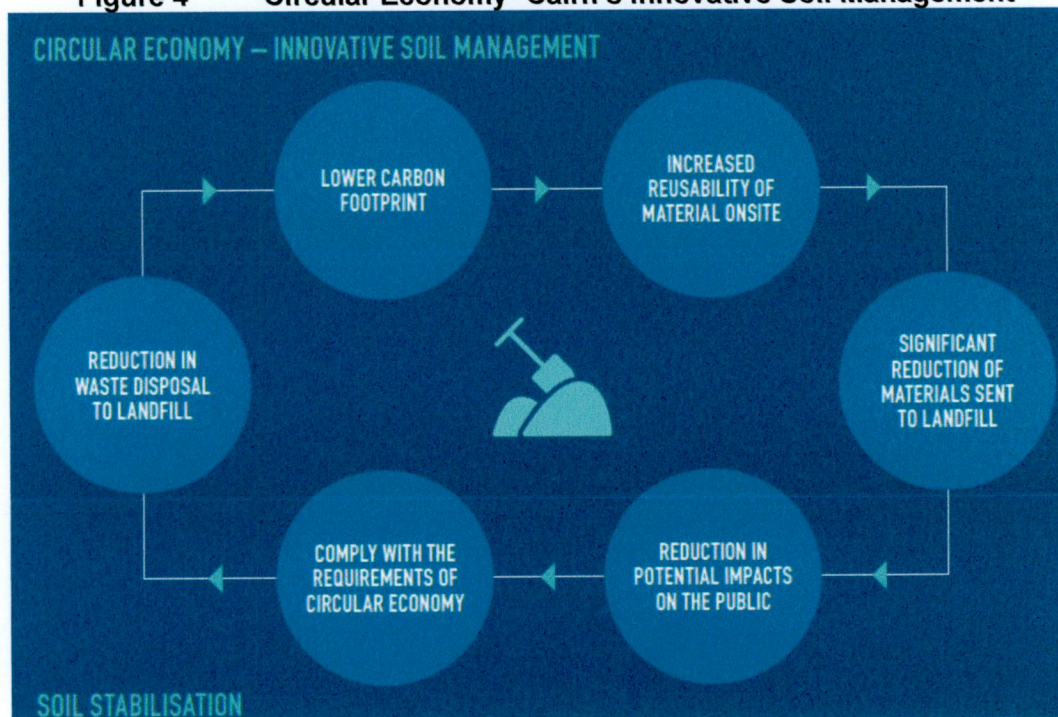
The process for stabilising soil begins with classification and sampling of the material intended for re-use. This process will identify the material type and produce a treatment plan for the stabilising process. For example, rapid impact compaction is an option for some sites while materials of a clay type may require lime for the stabilising process, and sandy soils may require a cement stabilising additive

Cairn have identified strategic schemes using specifically procured Site Investigation Material to roll this out on a substantial scale. Testing for a wider range of soil types means contaminants can be identified early and the soil can be better managed

Impact

Being more efficient about how we measure, control and use our soil is a key target for Cairn as we seek to find value in how we approach our groundworks. We employ a suite of Site Investigation packages and level mapping software that allow us to make advanced business decisions about our landbank to provide a best value approach and reduce our carbon footprint.

Figure 4 Circular Economy- Cairn's Innovative Soil Management



7.0 DESCRIPTION OF WASTE ARISING

Table 4 details the composition of construction waste that shall be generated based on EPA 2020 statistics.

The calculated construction waste tonnage with the exception of soils and stones has been derived from the *Building Research Establishment Environmental Assessment Method (BREEAM)* which specifies that 11.1 tonnes of construction waste is generated for every 100m² of development area. Based on the structures to be built with an area of c.28108m², it has been calculated that c. 3120 tonnes of construction waste shall be produced.

Table 5 details the estimated tonnage of each construction waste type that shall be generated.

Table 4 Typical Construction Waste Composition EPA 2020 Waste Statistics

Waste Type	%
Metal	15
Wood Plastic Glass	4
Bituminous Materials	10
Concrete Brick Gypsum	41
Mixed C&D	29

Table 5 Predicted construction waste

Low Code	Description	Volume Generated (tonnes)	Prevention (tonnes) Non Waste	Reused (tonnes) Non-Waste	Recycled (tonnes) Waste	Recovered (tonnes) Waste	Disposed (tonnes) Waste
17 01 01	Concrete	1280	0	693	523	0	64
17 01 02	Brick						
17 01 03	Tiles and Ceramics						
17 02 01	Wood						
17 02 02	Glass	120	0	0	95	24	11
17 02 03	Plastic						
17 03 02	Bituminous Material	320	0	138	182	0	0
17 04 01	Copper, Bronze, Brass	0					
17 04 02	Aluminium	0					
17 04 03	Lead	0					
17 04 04	Zinc	0					
17 04 05	Iron and Steel	0					
17 04 06	Tin	0					
17 04 07	Mixed Metals	480	0	0	480	0	0
17 04 11	Cables	0					
17 05 04	Soil and Stone	98,266	0	61,744	0	0	33,522
17 06 04	Insulation Material						
17 08 02	Gypsum	0					
17 09 04	Mixed C&D Waste	920	0	285	340	166	129
17 01 06*	Mix of concrete, bricks tiles containing hazardous substances	0					
17 02 04*	Glass, Plastic and Wood containing hazardous substances	0					
17 03 01*	Bituminous mixtures containing coal tar	0					
17 05 03*	Soils and Stones containing hazardous substances	0					
17 04 09*	Metal waste containing hazardous substances	0					

Table 5 contd. Predicted construction waste

Low Code	Description	Volume Generated (tonnes)	Prevention (tonnes) Non Waste	Reused (tonnes) Non-Waste	Recycled (tonnes) Waste	Recovered (tonnes) Waste	Disposed (tonnes) Waste
17 06 05 *	Construction materials containing asbestos	0					
13 07 01 *	Fuel Oils and Diesel	0					
20 01 05 *	WEEE	0					
20 01 08	Biodegradable Canteen Waste	10	0	0	0	0	10
20 03 01	Mixed Municipal Waste	10	0	0	0	0	10
20 01 01	Paper & Cardboard	1	0	0	1	0	0

*= Hazardous Waste

8.0 CONSTRUCTION WASTE MANAGEMENT

- It is proposed that from the outset of construction activities, a dedicated and secure compound containing bins, and skips, and storage areas, into which all waste materials generated by construction site activities, will be established within the active construction phase of the development site.
- Spill kits shall be located within the site compound with clearly labelled instructions on how they shall be used to clean up fuel/oil spills.
- All vehicle and plant oils and liquid construction materials shall be stored in secure impermeable storage units.
- All diesel-powered generators shall be inspected on at least a weekly basis by a delegate of the project manager to ensure it is not leaking diesel or oils.
- All empty containers containing residual quantities of oils, greases and hydrocarbon-based liquids shall be stored in a dedicated, clearly labelled impermeable container.
- In order to ensure that the construction contractor correctly segregate waste materials, it is the responsibility of the site construction manager to ensure all staff are informed by means of clear signage and verbal instruction and made responsible for ensuring site housekeeping and the proper segregation of construction waste materials.
- It will be the responsibility of the Resource and Waste Manager (RWM) to ensure that a written record of all quantities and natures of wastes exported off-site are maintained on-site in a Waste File at the Project office.
- It is the responsibility of the RWM that all contracted waste haulage drivers hold an appropriate Waste Collection Permit for the transport of waste loads and that all waste materials are delivered to an appropriately licenced or permitted waste facility in compliance with the following relevant Regulations:
Waste Management (Collection Permit) Regulations 2007 (SI No. 820 of 2007)
Waste Management (Collection Permit) Amendment Regulations 2008 (SI No. 87 of 2008)
Waste Management (Facility Permit and Registration) Regulations S.I.821 of 2007 and the Waste Facility Permit under the Waste Management (Facility Permit and Registration) Amendment Regulations S.I.86 of 2008.
- It is proposed that waste materials will be collected and stored in separate clearly labelled skips and suitable containers in a defined and separate waste storage area in the site compound and that these materials will be collected by a Permitted Waste Contractor holding an appropriate Waste Collection permit in compliance with *Waste Management (Collection Permit) Regulations 2007 (SI No. 820 of 2007)* and *Waste Management (Collection Permit) Amendment Regulations 2008 (SI No. 87 of 2008)* and that they will be sent for disposal or further processing to appropriately Permitted / Licensed Waste Facilities in compliance with *Waste Management (Facility Permit and Registration) Regulations S.I. No. 821 of 2007* and *the Waste Management (Facility Permit and Registration) Amendment Regulations S.I. No. 86 of 2008.*

- Prior to the commencement of the Project, the RWM shall identify a permitted Waste Contractor(s) who shall be engaged to collect and dispose of all inert and hazardous wastes arising from the project works.
- The RWM shall maintain copies of all Waste Collection Permits and copies of the Waste Facility Permit or Waste Licence to which waste materials are exported to. The RWM shall ensure that all Permits/Licences are within date.
- All waste soils prior to being exported off-site, shall be classified as inert, non-hazardous or hazardous in accordance with the EPA's *Waste Classification Guidance – List of Waste & Determining if Waste is Hazardous or Non-Hazardous* document to ensure that the waste material is transferred by an appropriately permitted waste collection permit holder and brought to an appropriately permitted or licensed waste facility.

Figure 5 Construction Waste segregation compound design

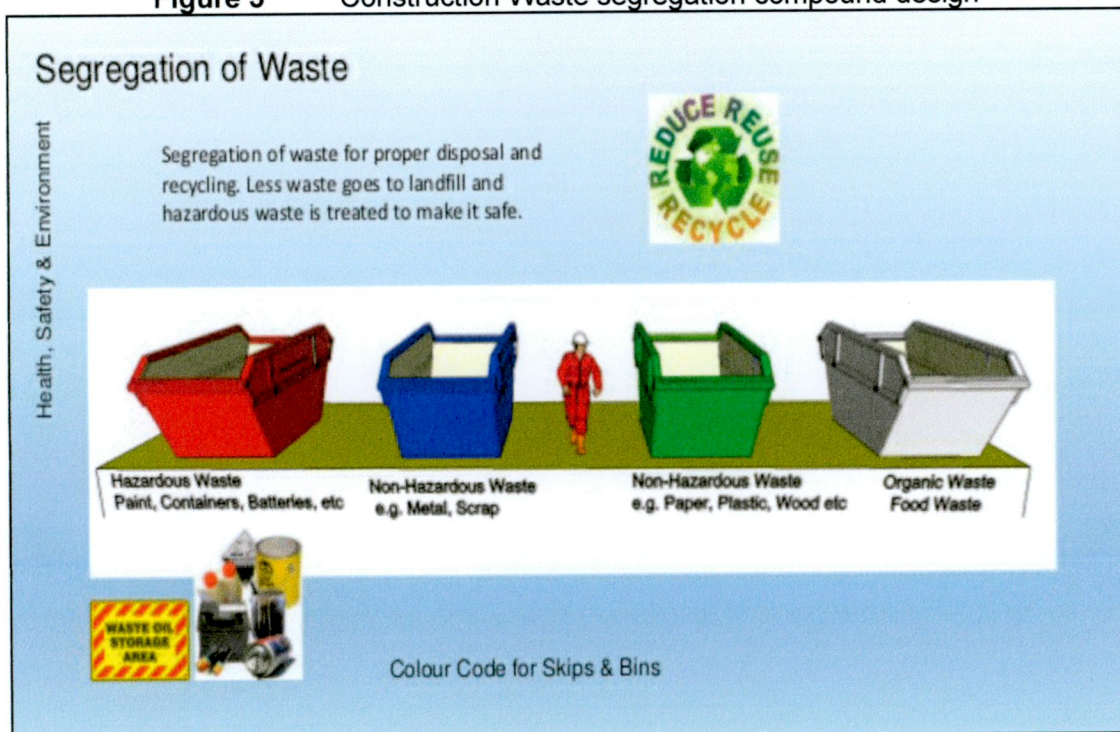


Figure 6 Oil Spill Kit



Figure 7 Bund for waste oil container storage



9.0 ON-SITE RESOURCE MANAGEMENT & WASTE REUSE RECYCLING AND MANAGEMENT

This section of the RWMP describes how construction waste shall be minimised and how the re-use and recycling of wastes shall be maximised

- Materials shall be ordered on an “as needed” basis to prevent over supply and preventing damage to bulk orders stored on-site.
- Materials shall be stored and handled in a manner that minimises the generation of damaged materials
- Materials shall be ordered in appropriate sequence to minimise materials stored on site
- All staff and Sub contractors shall be advised through inductions and tool box talks on how to dispose of their waste correctly on-site.
- Broken concrete blocks and excess aggregate materials shall be segregated and stored off-site for use as hard standing material on future projects. This will result in the following positive impacts:
 - Reduction in the requirement for virgin aggregate materials from quarries
 - Reduction in energy required to extract, process and transport virgin aggregates
 - Reduced HGV movements associated with the delivery of imported aggregates to the site
 - Reduction in the amount of landfill space required to accept C&D waste
- Excess wood will be segregated in separate skips and sent for recycling.
- Plastic arising from general waste or packaging will be segregated and stored in separate skips.
- Metals waste shall be stored in dedicated skips

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- Top soil that is stripped shall be retained in managed bunds to prevent erosion and reduce the leaching of minerals from the soil.
- Any hazardous material (e.g., unknown hotspot, underground tanks) discovered during the course of the construction phase shall be isolated and the removal of contaminated materials shall be managed by the RWM.

10.0 WASTE SOILS & STONES EXPORT & ARTICLE 27 DECLARATIONS

Article 27 requires that the material classified not a waste but a by-product must meet specific criteria and that a declaration of a material as a by-product is notified to the EPA. The EPA publication *“Guidance on Soil and Stone By-Products in the context of Article 27 of the European Communities (Waste Directive) Regulations – Version 3 June 2019* shall be considered in this regard. Appendix I presents the schematic process by which a material is determined as a waste or a by-product.

Based on a review of the site specific data in the context of the 2020 EPA Guidance on waste acceptance criteria at authorised soil recovery facilities the material sampled does meet the EPA definition of uncontaminated and therefore does satisfy the “not lead to overall adverse environmental or human health impacts” criteria to be considered a by-product. With the exception of the material at TP23 which has been impacted by mineral oil, the material if removed from site should be removed from site as a waste only/ either a waste or-by-product.

11.0 WASTE RECORD KEEPING

It is the responsibility of the RWM that a record of all quantities and natures of all wastes reused / recycled and exported off-site during the project are maintained in a Waste File at the Project office.

The following information shall be recorded for each load of waste exported off-site:

- Waste Type EWC Code and description.
- Volume of waste collected.
- Waste collection contractor’s Waste Collection Permit Number and collection receipt including vehicle registration number.
- Destination of waste load including Waste Permit / Licence number of facility.
- Description of how waste at facility shall be treated i.e. disposal / recovery / export

An indicative template is contained in Figure 8, to ensure the full traceability of waste materials to their final destination.

Verifiable and validated tracking and authorisation documentation will be maintained for all wastes destined for re-use, recovery, recycling or disposal. Justification will also be provided where a disposal option had been employed.

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The waste records shall be issued to South Dublin County Council as required / requested.

12.0 RESOURCE & CONSTRUCTION WASTE MANAGEMENT AUDITING

The effectiveness of a Resource and Waste Management Plan and its implementation, will be subject to quarterly audits by the RWM throughout the duration of the construction phase.

Audits will focus on materials inputs to the project and the waste outputs identifying:

Resources

How resource management was integrated into the design of project buildings and areas

Re-use, recycling of existing on-site materials prior to development including soils, buildings, structures.

Re-using surplus materials from previous development projects e.g., office cabins, fencing, aggregates, concrete products.

Additional opportunities for future resource management.

Waste

The audits will also investigate the operational factors and management policies that contribute to the generation of waste and identify appropriate corrective actions, where necessary.

Performance targets will be developed, e.g., an 85% overall recycling target, successes and failures will be recorded and Action Plans will be developed to address any issue which arise.

Inspections of the waste storage areas will be undertaken and recorded on a weekly basis, issues relating to housekeeping, inappropriate storage and segregation of wastes.

The RWM will record the findings of the audits, including types and quantities of waste arising, final treatments and costs, in a quarterly audit report.

The Final Waste Audit will examine the manner of how resources are managed and how and where the waste is produced and how waste generation can be reduced in future projects.

13.0 WASTE EXPORT PERMITS/LICENCES

All vehicles exiting the site containing any waste material shall be inspected by the gate man to ensure that they display on the side of the vehicle a Waste Collection Permit#.

Where a Waste Collection Permit# is not displayed the RWM shall be notified and the vehicle shall be instructed to return the waste load to the specific area on the site and will not be allowed exit the site with the waste load.

Once a Groundworks contractor and a Main Contractor have been appointed, the associated Waste Collection Permits for vehicles exporting materials off-site and the receiving facility Waste Facility Permits / Waste Licenses shall be maintained by the RWM and issued to South Dublin County Council.

Table 4a Register of Waste Collection Permits

Contractor	Address & Contact	Waste Collection Permit #	Expiry Date	Permitted Waste Materials To be transported
TBC	TBC	TBC	TBC	TBC

TBC To be confirmed once Main Contractor is appointed

Table 4b Register of Waste Facility Permits / Licences

Facility	Address & Contact	Waste Facility Permit / Licence #	Expiry Date	Permitted Waste Materials accepted
TBC	TBC	TBC	TBC	TBC

TBC To be confirmed once Main Contractor is appointed

