

Preliminary Construction and Demolition Waste Management Plan



Strategic Housing Development

**Redforge Road, Blackpool,
Co. Cork**

On behalf of

Bellmount Developments Limited





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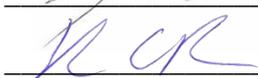
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Revision Record

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Strategic Housing Development
Redforge Road, Blackpool, Co. Cork
Bellmount Developments Limited

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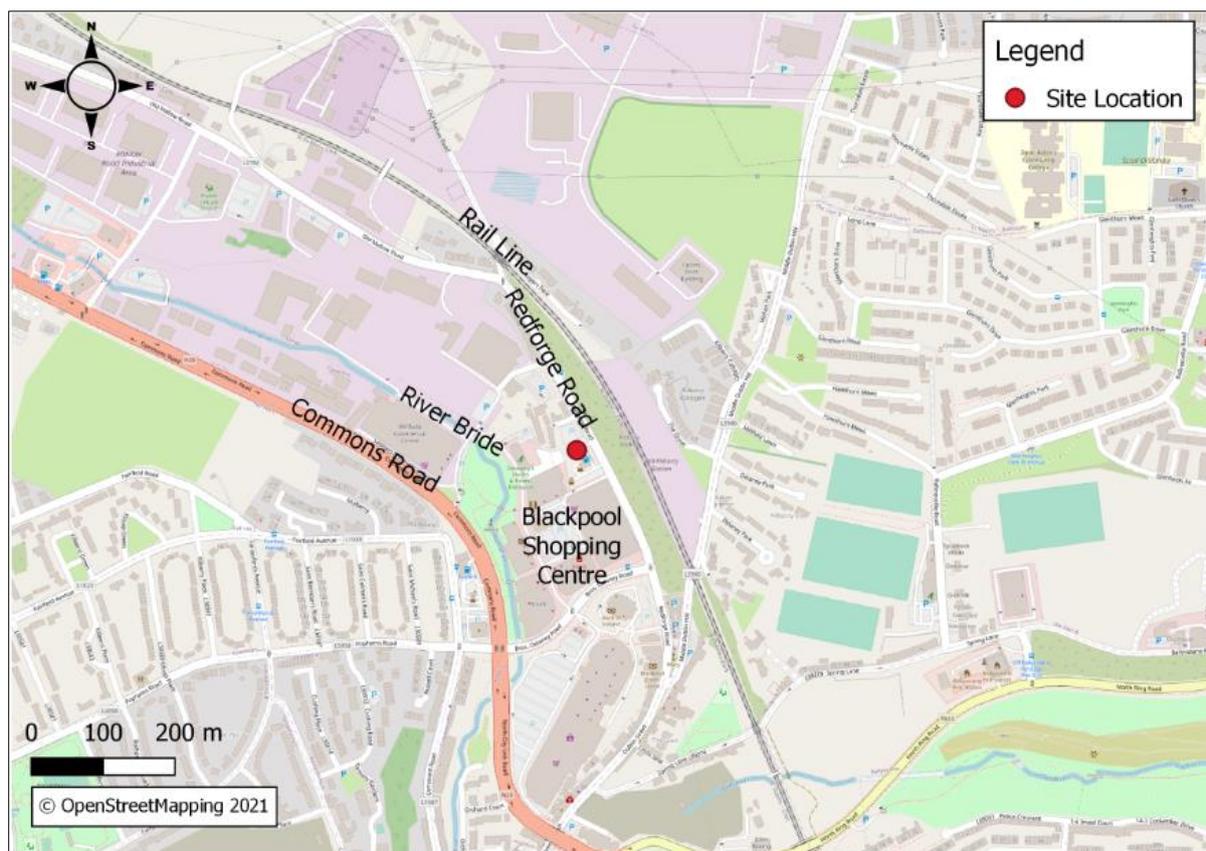
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1 INTRODUCTION

Malone O' Regan Environmental Services (MOR) was commissioned by Bellmount Development Limited (the applicant) to prepare a preliminary Construction and Demolition Waste Management Plan (pC&DWMP) to accompany a planning application to develop a Strategic Housing Development (SHD) and all associated works on lands Redforge Road, Blackpool, Co. Cork. (OS Reference 67595 74010).

The location of the site for the Proposed Development is shown in Figure 1-1.

Figure 1-1: Site Location



The purpose of the pC&DWMP is to outline the manner in which construction and demolition waste will be managed throughout the construction and demolitions phases of the Proposed Development, in order to achieve compliance with the relevant waste legislation. This will ensure that waste management activities from the site will not have an adverse impact upon the environment.

This pC&DWMP has been prepared with reference to the following legislation and plans:

- The Waste Management Act, 1996 (as Amended) and Associated Regulations;
- The Litter Pollution Act, 1997;
- The Southern Region Waste Management Plan 2015 – 2021 [1].

This document has been prepared taking cognisance of the “Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects” [2]. In this Plan, the category and quantity of waste generated by the Proposed Development is estimated and recommendations for the management of the various waste streams made.

This Plan also provides guidance on collection, transport and documentation of waste to prevent issues associated with litter or other environmental pollution (e.g., soil or water contamination).

1.1 Waste Management Objectives

The Waste Management Objectives for the construction and demolition phases for the Proposed Development are as follows:

- Preventing waste and maximising recycling and recovery of waste where possible;
- Diverting waste from landfill wherever possible;
- Prevent littering;
- Prevent any other environmental pollution such as soil or water contamination.

Specific targets for the reuse, recovery and recycling of wastes are set in section 3 of this document. The CEMP and C&DWMP are “live” document and should be reviewed and updated throughout all stages of the demolition and construction.

2 DESCRIPTION OF THE PROPOSED DEVELOPMENT

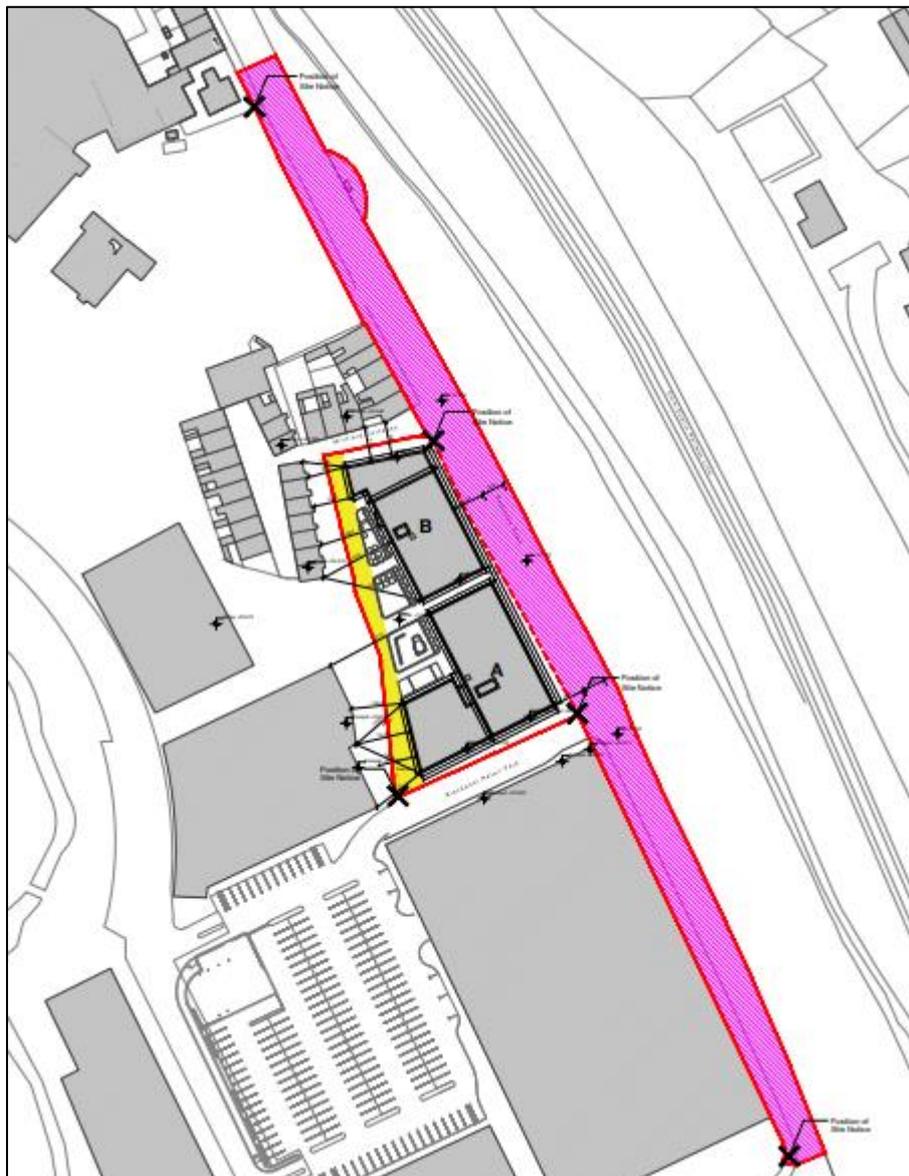
The proposed development is for a Strategic Housing Development at on c. 0.73ha at Redforge Road, Blackpool, Co. Cork. The site is known as Millfield Service Station and currently used as a petrol filling station and associated uses including car wash. The proposed development will include demolition of existing petrol station and construction of residential apartments. All design details of the proposed development have been included within the overall planning application and are briefly summarised within this section:

The Proposed Development will consist of the following elements:

- The demolition of existing structures on site including a single storey building, pump island canopy, 4 no. fuel pumps and the decommissioning/removal of 4 no. underground fuel tanks; and
- The construction of 114 no. Build to Rent apartments (comprising a mix of 1 and 2 bed apartments) in 2 no. blocks, ranging in height from 4 to 9 storeys;
- Residential amenity facilities including a reception, residents gym, lounge area and shared workspace;
- The provision of landscaping and amenity areas including an enclosed courtyard and 1 no. rooftop garden;
- The provision of public realm improvements on Redforge Road including widened footpaths and pavement improvements, pedestrian crossing, tree planting, raised tables/planters and seating areas; and
- All associated ancillary development including pedestrian/cyclist facilities, lighting, drainage, boundary treatments, bin and bicycle storage, ESB Sub-station and plant at ground floor level.

Full details of the Proposed Development are provided as part of the overall Planning Application submitted to Cork County Council. Figures 2-1 below shows the Site Layout of the proposed development.

Figure 2-1: Proposed Development Site Layout



3 PREDICTED WASTE ARISING AND MANAGEMENT

Typical non-hazardous and hazardous wastes generated by construction and demolition at sites are shown in Tables 3-1 and 3-2 along with their accompanying European Waste Code (EWC) Classification [3], which can be found here: <https://www.epa.ie/publications/monitoring-assessment/waste/2019--FULL-template.pdf>. Specific construction and demolition (C&D) wastes (including excavated soil from contaminated sites) are specifically listed in Chapter 17 of this EWC Catalogue.

Table 3-1: Typical C&D Non-Hazardous Waste Types

Description	EWC Code	Source
Metals	17 04	Demolition of existing building façade. Defective metal and cut offs.
Wood, glass, plastic	17 02	Demolition of existing buildings façade. Defective pieces and cut offs. Packaging materials.
Soil, stones, dredged soils	17 05	Excavation during ground works
Gypsum based materials	17 08	Defective pieces of plasterboard and cut offs. Expired skim.
Cardboard	15 01 01	Packaging
Bituminous mixtures, coal tar, tar products	17 03	Removal of existing roads and some waste arising from new road surfacing. Potential from flashings and other water proofing materials during demolition and off cuts during construction.
Insulation materials	17 06 04	Demolition of existing building façade. Defective pieces and cut offs.
Paper and Cardboard	20 01 01	Site office and personnel facilities
Biodegradable kitchen and canteen waste	20 01 08	Site office and personnel facilities
Garden and park wastes	20 02	Landscaping works.
Waste paint, inks, adhesives and resins (other than 20 01 27)	20 01 28	Waste paints, adhesives and / or resins may be encountered during the demolition stages and may arise from time to time during the construction stages.

Table 3-2: Typical C&D Hazardous Waste Types

Description	EWC Code	Source
Electrical and Electronic Components	16 02	Demolition within existing building. Defective pieces.
Oil/water separator contents	13 05	Commissioning and maintenance of new drainage system.
Liquid Fuels	13 07	Small volumes could arise from poorly stored or accidentally mixed fuels.
Chemicals (solvents, pesticides, paints, adhesives, detergents etc.)	20 01 13 20 01 14 20 01 15 20 01 16 20 01 17 20 01 18 20 01 19 20 01 27	Waste hazardous chemicals may arise from time to time during the construction stages however volumes are likely to be very small.
Batteries	16 06	Spent tool and vehicle batteries, amounts should be small as most will be rechargeable.
Soil and stones containing dangerous substances	17 05 03	No known soil and stone contamination on-site but there are always some risk of encountering contaminated soil.
Waste construction material containing asbestos	17 06 05	There is no known asbestos on the site and given that the oldest part of the existing building was constructed in 2014/15 the likelihood of encountering asbestos is very low.
Other construction and demolition wastes containing dangerous substances	17 09 03	Other wastes might arise from time to time during the C&D process.
Wastes from soil and groundwater remediation	19 13	No known soil or groundwater contamination on-site but there is always some small level of risk of encountering contamination.

3.1 Estimated Demolition Waste Volumes

The following quantities of waste have been estimated by JODA Engineering Consultants Limited to arise following the completion of the planned demolition activities at the Site. It is estimated that there will be approximately 1,154 m³ of waste material generated from the

demolition activities onsite (excluding soil and stone). Refer to Table 3-3 and Appendix A for the breakdown.

Table 3-3: Estimated Demolition Waste Volumes

Element	Typical Materials	Relevant EWC Codes	Volume (m ³)
Roof	Insulated cladding, purlins and steel structures	17 04 17 06 04	79
Building Walls (internal & external)	Masonry, glazing	17 02	175
Internal floor	Reinforced concrete	17 01 07	56
Foundations	Reinforced Concrete	17 01 07	68
External pavements	Reinforced concrete and tarmacadam	17 01 07 17 03	673
External elements	Masonry walls, RC footpaths	17 01 07	42
Underground services	Drainage pipes, ducting, cabling	17 01 07 17 02 16 02	7
Existing BGL Fuel Tank Removal (4 no.)	4 no. steel & concrete surround (c 35m ³ tank), fuel lines, fill points	17 04 05 17 01 01 17 04 09 17 09 03	141
Hydrocarbon interceptor	1 no. 10m ³ interceptor	17 04 05 17 01 01 17 04 09 17 09 03	11

3.2 Estimated Soil and Stone Volumes

The Proposed Development will require excavations across the site to remove underground structures, install flood tank and level the ground to ensure a suitable platform for construction and will result in cut and fill activities as part of the project. This soil and stone will be reused on site, in so far as is possible, however there will be limited areas for landscaping given the type of proposed development. The estimated soil excavation volumes are presented in Table 3-4 and Appendix A.

Table 3-4: Estimated Excavations (JODA)

Cut/Fill	m ³	Tonnes*
Fill below structure	79	142.2
Attenuation Tank (Existing Sub Strata Soil)	74	133.2
External General Fill below External Pavements	1,346	2,422.9

* A conversion factor of 1.8 tonne per m³ was used

It is envisaged that the majority of excavated material on-site will be sent offsite for disposal to an appropriately licenced or permitted facility. These materials should be sampled and analysed by the environmental clerk of works to determine appropriate control measures and disposal options. It should be noted that additional excavations of potentially contaminated soils in the vicinity of the existing forecourt and underground tanks cannot be quantified at this time. Refer to the Site Investigations report submitted with the application for further details.

3.3 Estimated Construction Waste

The amount of other wastes likely to arise as a result of the construction phase of the Proposed Development were estimated using the Building Research Establishment (BRE) Waste Benchmark Data [4]. The total amount is presented in Table 3-5.

Table 3-5: Estimated Construction Waste Volumes

Development Type	m ³ / 100m ²	m ² buildings	Estimated Volume (m ³)	Waste
Commercial Retail	15	865	130	
Residential	15.2	8,785	1,335	
Total	-	9,093	1,465	

It should be noted that the estimate included in Table 3-4 do not include wastes arising from excavations and groundworks.

The EPA provides a breakdown of the proportion of different types of C&D wastes collected in Ireland [5]. This was used to estimate the breakdown in the different types of waste likely to arise as a result of the construction and demolition phases of the Proposed Development. This estimate is presented in Table 3-6 along with proposed targets for recycling and / or recovery.

Table 3-6: Estimated Construction Waste Streams

Waste Stream	Proportion [5]	Proportion when soil and stones are excluded	Tonnes	Reuse, Recovery or Recycling Target
Soil and Stones	76.7%	n/a		See section 3.2
Mixed C&D waste	7%	29.9%	438	20% (see note below)
Concrete, tiles and similar	12%	51.3%	752	80%

Waste Stream	Proportion [5]	Proportion when soil and stones are excluded	Tonnes	Reuse, Recovery or Recycling Target
Metals	3%	12.8%	188	95%
Bituminous mixtures	1%	4.3%	63	80%
Segregated	0.4%	1.7%	24.9	80%
Segregated wood, glass and plastic	0.4%	1.7%	24.9	80%

Other wastes, not listed in Table 3-6, are likely to be generated in very small volumes.

Mixed C&D waste is the most common C&D waste after soils and stone in Ireland. Mixed C&D waste cannot be recovered or recycled due to its mixed nature being made up of numerous materials. Some mixed C&D waste can be somewhat segregated and at portion recycled at the receiving waste facility e.g., removal of metal by magnet. However, to achieve a target of 20% reuse, recovery, or recycling for this waste stream a greater proportion of segregation will be required. Measures to facilitate and manage this are set out in sections 5 to 7.

Materials should be ordered on an as needed basis to avoid excess materials becoming waste. Any excess, unused, materials will be sent back to the supplier. To facilitate this, materials in packaging should not be unpackaged until they are ready for use.

4 ESTIMATED WASTE MANAGEMENT COST

As specified in the best practice guidance [2], an outline of the cost associated with waste managed during the construction and demolition phases of the project are provided in this section. Cost of waste disposal can include waste handling, storage, transportation, recycling and disposal costs, landfill tax as well as potential revenue generated, or savings made for recycling and / or reuse of materials.

Reuse and/or Recovery

Reusing materials on site will reduce the costs of transportation, disposal, and landfill levy fees as well as a reduction in the use of virgin raw materials. Reuse and/or recovery will be used where practicable, but given the size of the Site and development proposed, scope will be limited.

Recycling

The cost of waste recycling can be lower than disposal, depending on segregation at source for certain materials such as plastic glass and card. If waste streams can be segregated on-site, waste collection and management fees would be significantly reduced.

Metals are often segregated at source on site as some revenue can be earned from source segregated metal. Where metal is not segregated on-site this can be segregated at a C&D waste processing facility and a rebate against the overall cost of waste transport and disposal given to the contractor.

Disposal

Disposal is the least preferable method of waste management. A landfill levy of €75 per tonne is imposed for waste sent to landfill under the Waste Management (Landfill Levy) Regulations 2015 (S.I. 189 of 2015). Current typical gate fees for non-hazardous waste disposal to landfill are €150-170 per tonne, which includes this levy.

An additional fee for collection and transport would also be imposed by the waste contractor. This can vary a lot depending on the distance from the site to the landfill and individual agreements made with waste contractors. Collection of segregated C&D waste costs less than municipal waste. Specific C&D waste contractors take the waste off-site to a licensed or permitted facility and, where possible, remove salvageable items from the waste stream before disposing of the remainder to landfill. Clean soil, rubble, metal etc. is also used as fill/capping material, where possible.

5 DEMOLITION PLAN

Demolition of the existing building will be completed in a staged basis.

5.1 Proposal to Protect Adjacent Structures During Demolition and Construction

There is an existing foul sewer pipe of 150mm diameter on the west of the site which will be protected during the demolition and construction activities.

5.2 Salvageable and Hazardous Materials Survey

Prior to commencing demolition, both buildings will be checked for any potential salvageable and hazardous materials including asbestos containing materials (ACMs), PCB containing electrical components, chemical hazards, oil, fuels and contamination.

5.3 Removal of Hazardous Materials

All hazardous materials Identified (i.e., ACMs, PCB containing electrical components, oil, fuels etc.) will be removed prior to commencing demolition activities. It should be noted that ground contamination has been Identified at the Site [6], however given it's below the existing concrete surface, it's removal will be conducted after the buildings have been demolished to ensure ease of access/safety, refer to section 5.6 and 5.7 below.

5.4 Removal of Salvageable Materials

All components from within the buildings that can be salvaged will be removed next. This will primarily include metal however may also include timber, doors, windows, wiring and metal ducting, etc.

5.5 Demolition of Buildings

Services will be removed from the ground and the breakdown of walls will be carried out once hazardous, salvageable or reusable materials have been taken from the buildings. Where possible rebar will be segregated from the rubble for recovery. Where this is not practical it will be segregated by the waste contractor at a specific C&D waste sorting facility. Finally, any existing foundations and hard standing areas will be excavated. Tarmac road surfacing will be segregated from other sources of rubble.

5.6 Removal of Underground Tanks and Structures

The construction of the proposed development will require limited excavation, primarily from 0.2mbgl to 0.4mbgl across the majority of the Site for the installation of drainage and piles and removal of underground fuel storage tanks approximately 1.5mbgl to 1.8mbgl in the same area to allow the location of an attenuation tank.

Tanks and fuel lines will be fully emptied of fuels and cleaned by a suitably qualified and permitted specialist contractor prior to removal. Documentation of this decommissioning shall be retained by the main contractor.

5.7 Removal of Potentially Contaminated Soils

Soil analytical results have identified the presence of elevated concentrations of chromium across the Site, which exceed the assessment criteria for the human health exposure pathway via direct contact.

Soil analytical results have also identified the presence of localised elevated concentrations of a number of TPH's, BTEX and VOC parameters at a number of locations across the Site, specially at the centre of the Site and the south / south-east of the Site. Refer to the Site Investigation report submitted with the application for further details.

Excavations in the vicinity of existing underground structures will be supervised by an environmental consultant to ensure that all contaminated soils will be appropriately segregated and removed from the site in strict accordance with all requirements of the Waste Management Regulations.

6 RESPONSIBILITIES AND TRAINING

A member of the construction management team will be appointed as the project waste manager to ensure compliant, efficient and documented waste management during the construction and demolition of the project. However, each member of the construction staff, including sub-contractors, will require training in waste management procedures appropriate to their role and each person will have the responsibility to comply with the C&DWMP and related waste management procedures.

6.1 Waste Manager

The Waste Manager will be given responsibility and authority to select a waste team, if required, i.e., members of the site staff that will aid them in the organisation, operation and recording of the waste management system on the site. The waste manager will also make sure that an engineer or geologist will supervise works mentioned in section 5.6 and 5.7. The Waste Manager will have overall responsibility to oversee record and provide feedback to the client on everyday waste management at the site. Authority will be given to the waste manager to delegate responsibility to sub-contractors where necessary, and to coordinate with suppliers, service providers and sub-contractors to prioritise waste prevention and recycling on site.

The Waste Manager will have overall responsibility to manage, record and provide updates to the client and construction management team on everyday waste management at the site. It will be their responsibility that all relevant site personnel are trained, appropriately to their role in the implementation of the C&DWMP and related waste management procedures. These procedures will include litter prevention and mitigation measures.

The Waste Manager will be required to ensure that only appropriately permitted waste collection contractors are used to collect waste from the site. This can be checked on the National Waste Collection Permit Office (NWCPO) website <https://www.nwcpo.ie/permitsearch.aspx>. They will also be responsible for ensuring that all waste is processed, and / or disposed of at a suitably licenced or permitted waste facility. The status of a site's waste permit or certificate of registration (COR) can be checked on the NWCPO website at <http://facilityregister.nwcpo.ie/> or on the EPA website for licenced sites at <https://www.epa.ie/our-services/licensing/licencesearch/>.

The Waste Manager will be trained in how to establish and maintain a waste record keeping system, how to perform an audit and how to establish targets for the waste management on site. They will be also trained in the best methods for segregation and storage of recyclable materials, have information on the materials that can be reused on site and know how to implement the C&DWMP. They will also be responsible for conducting waste audits from time to time.

6.2 Site Staff including Sub-contractors

It will be the responsibility of all relevant site construction staff and sub-contractors to ensure that waste is segregated and stored appropriately in line with the C&DWMP and related waste management procedures.

A basic awareness course will be given to all site staff and relevant sub-contractors to outline the C&DWMP, to detail the segregation of waste materials at source and litter prevention requirements. This may be incorporated with other site training sessions e.g. general site

induction. This basic course will describe the materials to be segregated, the storage methods and the location of the Waste Storage Areas. A sub-section on hazardous wastes will be incorporated into the training program and the particular dangers of each hazardous waste will be explained. This may also include the provision of training and reminder material such as posters, signs and contact details for the Waste Manager or their nominated deputy.

7 CONTROL OF RECORDS

Records will be kept for each waste movement from the site i.e., each skip or load. A system will be put in place to record the construction waste arisings on site. For each movement of waste, the Waste Manager, or nominated deputy will obtain a signed docket from the contractor, detailing the weight and type of the material, the source and destination of the material.

The Waste Manager or nominated deputy will record the following:

1. Waste taken for reuse off-site (e.g., as landfill capping or fill material at another site);
2. Waste taken for recycling;
3. Waste taken for disposal;
4. Reclaimed waste materials brought on-site for reuse.

The record system will allow the comparison of recorded waste amounts with the targets established for the recovery, reuse and recycling. This system should also be linked with the delivery records. In this way, the percentage of construction waste generated for each material can be determined.

8 AUDITING

It is anticipated that a waste audit should be conducted at the end of each stage of the construction and demolition of this project. A review of all waste records as well as progress toward reuse, recovery and recycling targets will be undertaken.

An audit plan should be prepared in advance of the audit when the waste management procedures and plan are being put in place at the start of the project. The audit should involve a systematic study of all waste management practices which have been put in place onsite, both operational (e.g., segregation) and procedural (e.g., record keeping). Details of raw material inputs and the quantity, type and composition of all waste from the site should be identified and summarised.

Special attention should be dedicated to obvious opportunities for waste reduction, but all areas and stages within the project should be reviewed. The audit findings should highlight corrective actions that may be taken in relation to management policies or site practices in order to bring about further waste reductions. A tracking system should be stipulated to determine the success or failure of corrective actions.

Summary audit reports outlining types, quantities of waste arisings and their final treatment method should be prepared within 1 month of completion of the audit. These reports should be sent to the relevant body (e.g., planning authority), as required, in line with the conditions of the grant of planning permission.

C&D waste audit procedure and template advice, including an audit checklist and templates for waste records are available in the European commission [7] "*Guidelines for the waste audits before demolition and renovation works of buildings*" available at the following link <https://ec.europa.eu/docsroom/documents/31521>.

9 CONSULTATION WITH RELEVANT BODIES

Formal or informal consultation with one or more of the following bodies may be required surrounding specific issues:

- Environmental Protection Agency (EPA);
- National Construction and Demolition Waste Council (NCDWC);
- National Waste Collection Permit Office;
- National Trans-Frontier Shipments (TFS) Office;
- experts such as waste practitioners, recyclers or members of academic or research institutions;
- other designers/developers/ conservation architects and engineers who have implemented successful measures for improving waste management practices on similar projects; and,
- The environmental department of local authority within which a relevant waste facility is located.

Ongoing consultation with waste contractors and Cork City Council and/or An Bord Pleanála, will be pursued in order to ensure that the best practical option is being followed for waste management on site. This will include the submission of waste audit reports in line with any conditions of planning.

10 CONCLUSIONS

This pC&DWMP document outlines the management procedures to enable the Appointed Project Manager to prepare and update a construction stage C&DWMP.

The appointed Contractor will be required to develop an updated CEMP and C&DWMP prior to the commencement of any construction works and this will be submitted to the Planning Authority for approval, if requested.

The implementation of all of the environmental management measures outlined in this pC&DWMP will ensure that the construction programme will be completed without significant adverse effects on the surrounding environment and minimise waste disposal in so far as is possible.

11 REFERENCES

- [1] SWR, "Southern Region Waste Management Plan 2015-2021," Southern Waste Region, 2017.
- [2] DoEHLG, "Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects," 2006.
- [3] EPA, "List of Waste & Determining if Waste is Hazardous or Non-hazardous," 05 07 2019. [Online]. Available: <https://www.epa.ie/publications/monitoring--assessment/waste/waste-classification.php>.
- [4] BRE, "BRE Waste Benchmark Data," July 2012. [Online]. Available: http://www.smartwaste.co.uk/filelibrary/benchmarks%20data/Waste_Benchmarks_for_new_build_projects_by_project_type_31_May_2012.pdf.
- [5] EPA, "CONSTRUCTION & DEMOLITION WASTE STATISTICS FOR IRELAND," February 2021. [Online]. Available: <https://www.epa.ie/nationalwastestatistics/constructiondemolition/>.
- [6] MOR, "Site Investigation Report - Student Housing Development Victoria Cross, Cork.," Malone O'Regan, Cork, 2021.
- [7] EC, "Guidelines for the waste audits before demolition and renovation works of buildings," May 2018. [Online]. Available: <https://ec.europa.eu/docsroom/documents/31521> .
- [8] Health and Safety Authority, "Asbestos-containing Materials (ACMs) in Workplaces - Practical guidelines on ACM Management and Abatement," HSA, 2013.
- [9] USGBC, "Construction, demolition and renovation waste management: Materials and Resources MR2," 21 09 2020. [Online]. Available: <https://www.usgbc.org/credits/mr2>.

APPENDICES

APPENDIX A

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NOTES:

- DRAWING - NOTES
 1. This drawing shall be read in conjunction with all relevant drawings and specification.



EXISTING EXTERNAL WALLS TO BE DEMOLISHED

EXISTING EXTERNAL PAVEMENT AND UNDERLYING FILL TO BE REMOVED

EXISTING SERVICE STATION BUILDING TO BE DEMOLISHED

PROPOSED ATTENUATION TANK EARTHWORKS EXCAVATION

EXISTING 1 NO. FUEL TANK TO BE REMOVED

EXISTING FORECOURT CANOPY TO BE DEMOLISHED

EXISTING HYDROCARBON INTERCEPTOR TO BE REMOVED

EXISTING 3 NO. FUEL TANKS TO BE REMOVED

JODA ENGINEERING CONSULTANTS	Project	Redforge Road SHD		Job ref 4507	
	Design Element	Demolition/Excavation Waste Volumes		Calc sheet no.	rev
	Drawing Ref	4504-100	Calc By	Date	Check by
		M.O'D	21/05/2021	TON	21-May-21
Ref	Calculations				Output

No.	Element	Typical Materials	No.	Length c. (m)	Width c. (m)	Height c. (m)	Volume c. (m ³)
1	Roof (Forecourt & Building)	Insulated Cladding, Purlins, Steel Structure	1	23	23	0.15	79
2	Building Walls (Internal & External)	Masonry, Glazing	1	250	0.2	3.5	175
3	Internal Floors	Reinforced Concrete	1	15	15	0.25	56
4	Foundations	Reinforced Concrete	1	250	0.9	0.3	68
5	Fill below Structures	Annex E - CL 804	1	15	15.00	0.35	79
6	External Pavement	Reinforced Concrete & Tarmacadam	1	58	58.00	0.20	673
7	External General Fill below External pavements	Annex E - CL 804/Existing Sub Strata Soil	1	58	58.00	0.40	1346
8	Attenuation Tank	Existing sub strata soil	1	7	7.00	1.50	74
9	Existing BGL Fuel Tanks Removal (4 No.)	4 No. Steel & Concrete Surround (C. 35 m ³ tank), Fuel Lines, Fill Points	4	8	2.10	2.10	141
9	Existing Hydro Carbon Interceptor	1 No. 10,000 L Interceptor	1	3.9	1.70	1.70	11
10	External Elements	Masonry walls, RC footpaths	1	166	0.25	1.00	42
11	Underground services	Drainage Pipes, Ducting, Cabling	1	180	0.20	0.20	7

2750 Total (m³) Volume of Waste to be removed from site

137 Approx No. of Truck Loads (20m³ / truck)

B	REVISED FUEL TANK VOLUMES	M.O'D	T.ON	21.05.21
A	ISSUED FOR INFORMATION	M.O'D	T.ON	14.05.21

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REDFORGE ROAD, BLACKPOOL		4507-SK01
DEMOLITION / EXCAVATION WASTE QUANTITIES		SCALE: 1:250 A1 CHECK SCALE: 50mm @ 1:1