

School St / Thomas Court Bawn Estate Renewal

outline Construction Demolition Resource Waste Management
Plan





Dublin City Council

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1. Introduction

1.1 Background

AECOM Ireland Limited (hereafter referred to as “AECOM”) has been commissioned by the Dublin City Council (DCC) to prepare an outline Construction, Demolition, Resource and Waste Management Plan (oCDRWMP) in support of the Part 8 planning application to DCC) for the proposed new residential scheme (proposed development) at School Street, Dublin 8.

The oCDRWMP sets out procedures, standards, and work practices to address the prevention and management of construction wastes and resources related to the construction of the proposed development. This document contains an overview of the proposed development and the approach to resources and waste management to be adopted during the construction and demolition works. The plan presented herein is outline in nature, as it has been prepared at a stage when exact quantities and volumes of waste material have not yet been determined.

The oCDRWMP is to be updated into a detailed CDRWMP by the appointed Principal Contractor in accordance with relevant guidance. The CDRWMP shall be a ‘live’ document which must be updated regularly, and as required, as works progress. The measures set out in this oCDRWMP are not exhaustive and are to be refined through additional consideration of local circumstances and conditions during preparation of the CDRWMP. The CDRWMP shall apply to all works carried out by the Contractor and any subcontractors under their control. Approval of the CDRWMP by the Principal Authority (PA) is required prior to implementation, and for any subsequent revisions.

This report should be read in conjunction with the outline Construction Environmental Management Plan (oCEMP) prepared by AECOM, and all other relevant documents, drawings, and reports produced as part of this application.

This CDRWMP has therefore been prepared with reference to and taking account of the following legislation, plans and waste management guidance documents:

- The Waste Management Act 1996 – 2008, Amendments & Associated Regulations;
- CIRIA document 133 Waste Minimisation in Construction;
- The Litter Pollution Act 1997;
- The Eastern-Midlands Region Waste Management Plan 2015-2021;
- Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (DEFRA), September 2009;
- Designing out Waste: A Design Team Guide for Civil Engineering (WRAP); and
- Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects (DoEHLG), June 2006.

Further relevant waste legislation is discussed in Section 4.

1.2 Objectives

The objective of this oCDRWMP is to provide an outline of general principles underpinning the preparation of a Contractor’s CDRWMP.

The ultimate objectives of the CDRWMP are to:

- Promote an integrated approach to waste management throughout the construction and demolition works phase of the proposed development and to set out appropriate responsibilities;
- Promote sustainable waste management in line with the waste management hierarchy circular economy principles;
- Provide an outline plan for the management of wastes arising from construction and demolition works for the proposed development in accordance with the relevant Irish and EU waste management legislation;

- Provide a framework for the designers and the principal Contractor to appropriately manage waste generated during the course of the proposed development. Both the designers and the Principal Contractor will be responsible for implementing the findings and recommendations of the oCDRWMP in their CDRWMP.

The oCDRWMP sets out methods to achieve waste prevention, recycling, and recovery of waste. It also provides recommendations for the management of the various anticipated waste streams. The plan includes recommendations on collection and transport of waste to prevent issues associated with litter or more serious environmental pollution (e.g., contamination of soil or water resources).

The oCDRWMP describes the applicable legal and policy framework for Construction and Demolition (C&D) waste management in Ireland (both nationally and regionally).

1.3 Scope

The scope of this oCDRWMP covers the C&D works for the proposed development. Details on the proposed development are provided in Section 2 of this report. The spatial scope of the proposed development will cover the:

- The area within the site boundary;
- Access to and egress from site.

There will also be utility and drainage diversions and decommissioning of services within the site boundary and outside the site boundary, where C&D works may impact upon existing services. These are anticipated to require individual road opening licenses to be obtained from DCC, and the works and their management will be subject to the requirements of the road opening licences and any associated conditions.

No additional working areas (e.g., construction compounds outside the boundary of the site) will be required at the C&D works stage.

1.4 Rational & Methodology

C&D waste is defined as waste which arises from construction, renovation and demolition activities, together with all waste categories mentioned in Chapter 17 of the List of Waste (LoW)¹, which is reproduced in the Environmental Protection Agency's (EPA) *'Waste Classification: List of Waste & Determining if Waste is Hazardous or Non-hazardous'* (2018). Also included within the definition are surplus and damaged products and materials arising during construction work or used temporarily during the course of onsite activities.

Also included are surplus and damaged products and materials arising during construction work or used temporarily during the course of on-site activities.

A CDRWMP is required for any project that is likely to exceed the thresholds set out in the Department of Environment, Heritage and Local Government (DoEHLG) (2006) publication *'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects'*, which are set out as follows:

1. New residential development of 10 houses or more;
2. Retrofit of more than 20 dwellings;
3. New developments other than (1) above, including institutional, educational, health and other public facilities, with an aggregate floor area in excess of 1,250 m² or more;
4. Demolition/renovation/refurbishment projects generating in excess of 100m³ in volume, of C&D waste; and
5. Civil Engineering projects producing in excess of 500m³ of waste, excluding waste materials used for development works on the site.

This project meets the DoEHLG thresholds under Items 1, 2 and 3 above and thus requires a CDRWMP.

In preparation of this oRWMP, AECOM have taken cognisance of the DCC Development Plan 2022 – 2028 (DCDP). The DCDP was adopted by DCC on the 2nd of November 2022, coming into effect on the 14th of December 2022. Of particular relevance to the production of this oRWMP are the core objectives and policies in relation to waste management contained in Volume 1, Chapter 9 and Chapter 15 of the DCDP.

The core policies and objectives in relation to waste as outlined under Section 9.5.5 of the DCDP which are relevant to this application are outlined as follows:

- SI27: Support the principles of the circular economy and best practices in waste management to ensure Dublin City and the Region become self-sufficient in resource and waste management. Provide the necessary infrastructure to support these goals and encourage opportunities within the circular, resource-efficient economy in line with the National Policy Statement on Bioeconomy (2018);
- SI28: Prevent and minimize waste generation and disposal, prioritizing prevention, recycling, preparation for reuse, and recovery to develop Dublin as a circular city and safeguard against environmental pollution;
- SI29: Require new commercial and residential developments to include adequate and accessible storage space for the separate collection of multiple waste and recycling streams. At a minimum, facilities should accommodate general domestic waste, dry recyclables, and food waste (see Appendix 7 for guidance);
- SIO16: Support the implementation of the Eastern Midlands Regional Waste Management Plan 2015–2021 and subsequent plans to advance the transition to a circular economy;
- SIO21: To reduce harmful emissions and to achieve and maintain good air quality in the City by working with the Dublin local authorities and relevant agencies in the collection of local data through the Dublin City ambient air quality monitoring network.

In addition to the core policies and objectives as outlined in the DCDP, key policy frameworks and initiatives include:

- Waste Action Plan for a Circular Economy 2020-2025: Ireland's roadmap for waste management;
- Whole of Government Circular Economy Strategy 2022-2023: Policy framework supporting Ireland's transition to a circular economy;
- Circular Economy Act 2022: Encourages the use of waste as a resource to minimize emissions;
- Dublin Waste-to-Energy Facility: An example of practical circular economy application;
- Eastern Midlands Regional Waste Management Plan 2015-2021 (EMRWMP): Outlines waste prevention and management strategies, promoting energy recovery over landfilling;
- MODOS Training Program: Launched in 2019 to help SMEs adopt sustainable waste practices;
- Dublin City Climate Change Action Plan 2019-2024: Integrates waste management into climate resilience efforts;
- Litter Management Plan 2020-2022: Aims to expand recycling facilities and enhance community access.

2. Project Description

2.1 Site Location

The existing site is located in the Liberties, Dublin 8, and is bound by School Street to the north, Taylor's Lane to the west and Marrowbone Lane to the southeast. It is a brownfield site with two existing residential apartment blocks. Refer to Figure 1.1 for the existing site location.

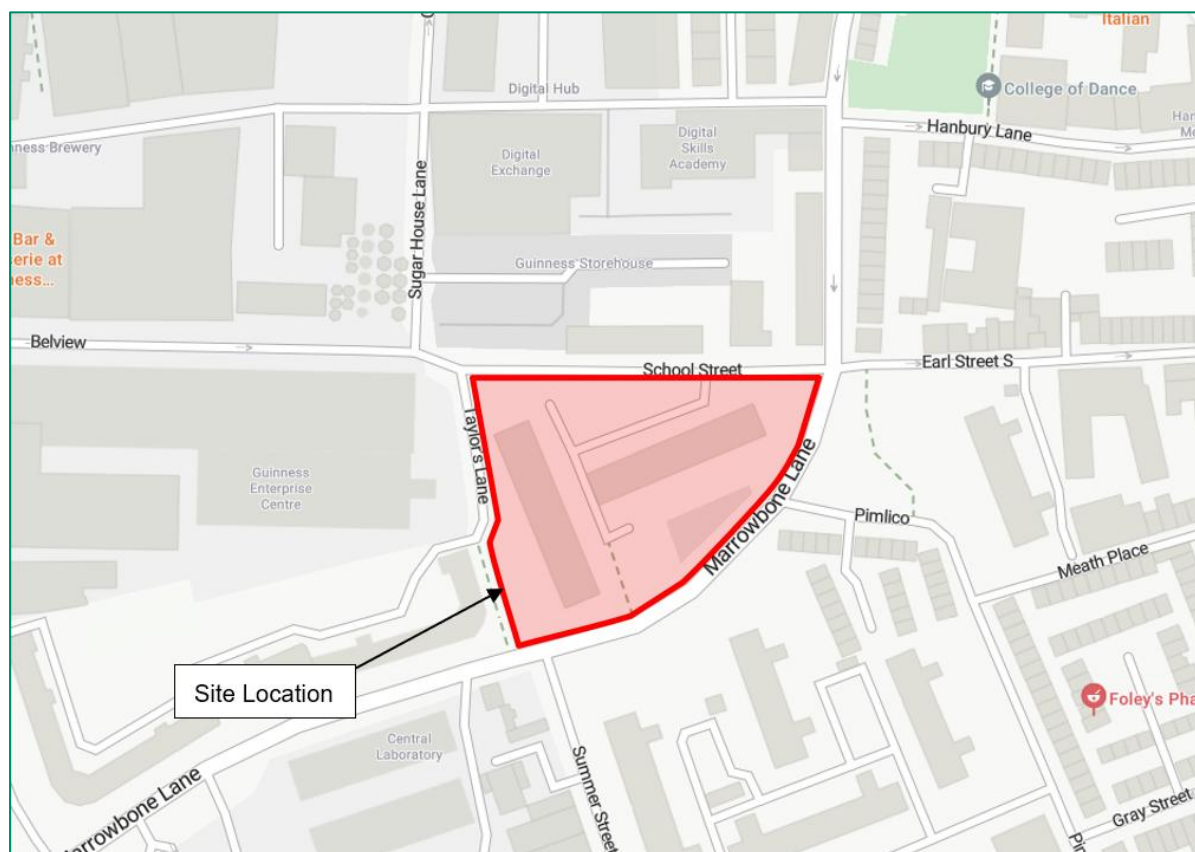


Figure 1.1 Site Location (Source: Google Maps)

2.2 Overview of Proposed Development

The proposed redevelopment is for the existing School St / Thomas Court Bawn Estate and construction of 124 apartments at School Street/Thomas Court Bawn Estate, Dublin 8. The site is bounded by School Street, Taylor's Lane, Marrowbone Lane and Thomas Court Bawn (opposite Anne Devlin Park), Dublin 8. The existing 0.653 hectare site currently comprises of 2 no. five-storey housing blocks (School Street Flats (including 38 homes and a community facility at first floor) and Thomas Court Bawn (including 40 homes).

The proposed development, which will be managed by Dublin City Council, comprises of:

- The demolition of the existing Thomas Court Bawn block, ancillary structures, boundary walls/railings and site clearance works and the renovation of the existing School Street Flats block.
- Construction of 124 apartment units in 3 no. apartment blocks (Block A, Block B and Block C) comprising 41 no. 1 bed apartments, 65 no. 2 bed apartments, 18 no. 3 bed apartments.
 - Block A1 (facing School Street and Thomas Court Bawn) is 7 storeys with 27 units (27 no. 2-bed units) o
 - Block A2 (facing School Street and Thomas Court Bawn) is 10 storeys with 35 units (10 no. 1-bed, 16 no. 2-bed & 9 no. 3-bed)
 - Block B (facing Thomas Court Bawn/Marrowbone Lane) is 5 storeys with 18 units (3 no. 1-bed, 6 no. 2-bed, 9 no. 3-bed)



Figure 1.3 Proposed Development Phasing (Source: Metropolitan Workshop)

3. Waste Management Regulatory & Policy Framework

General provisions on waste management policy and regulatory framework are set under the following legislative instruments and policy documents:

- The EU Waste Framework Directive 2008/98/EC (as amended), enacted in Ireland under the Waste Directive Regulations, 2011 of the same title, requires Member States to take the necessary measures to achieve the minimum recycling/recovery target of 70% by weight for non-hazardous C&D waste, excluding naturally occurring materials, by 2020. The Directive specifies that such a target should be achieved by preparing for reuse, recycling, and other material recovery, including backfilling operations using waste to substitute other material;
- The Circular Economy and Miscellaneous Provision Acts 2022 defines 'circular economy' in domestic Irish law for the first time and sets out regulatory policy and economic measures that aim to transition from a linear 'take-make-waste' economy to a more circular economic model where waste is minimised, and the value of goods and materials are retained for as long as possible;
- The Department of the Environment, Climate and Communications (2020), 'A Waste Action Plan for a Circular Economy' is a waste policy document which provides a roadmap for waste planning and management while the Whole of Government Circular Economy Strategy 2022 – 2023 'Living More, Using Less' (2021) is Ireland's first national circular economy strategy;
- The Eastern-Midlands Region Waste Management Plan 2015-20213, published in 2015, sets out the following targets for the region:
 - 1% Reduction Per Annum in the Quantity of Household Waste Generated per capita over the period of the plan;
 - Achieving a recycling rate of 50% of managed municipal waste by 2020;
 - Eliminate the direct disposal of unprocessed residual municipal waste to landfill.

The primary legislative instruments that govern waste management in Ireland and are deemed applicable to the Proposed Development are:

- Waste Management Act 1996 (S.I. No. 10 of 1996) as amended. Sub-ordinate legislation to this Act include:
 - European Communities (Waste Directive) Regulations 2011 (SI 126 of 2011) as amended 2011 (S.I. No 323 of 2011);
 - Waste Management (Collection Permit) Regulations S.I No. 820 of 2007 as amended 2008 (S.I No 87 of 2008) and 2016 (S.I. No. 24 of 2016);
 - Waste Management (Facility permit and Registration) Regulations, S.I No. 821 of 2007 as amended 2008 (S.I No. 86 of 2008) and 2019 (S.I. No. 250 of 2019);
 - Waste Management (Licensing) Regulations 2000 (S.I No. 185 of 2000) as amended 2004 (S.I. No. 395 of 2004), and 2010 (S.I. No. 350 of 2010);
 - European Union (Packaging) Regulations 2014 (S.I. No. 282 of 2014);
 - Waste Management (Packaging) Regulations 2003 (S.I. No. 61 of 2003) as amended 2004 (S.I. No. 871 of 2004), 2006 (S.I. No. 308 of 2006) and 2007 (S.I. No. 798 of 2007);
 - Waste Management (Planning) Regulations 1997 (S.I. No. 137 of 1997);
 - Waste Management (Landfill Levy) (Amendment) Regulations 2012 (S.I. No. 221 of 2012), as amended 2015 (S.I. No. 189 of 2015), and 2019 (S.I. No. 182 of 2019);
 - European Union (Waste Electrical and Electronic Equipment) Regulations 2014 (S.I. No.149/2014);
 - Waste Management (Registration of Brokers and Dealers) Regulations 2008 (S.I. 113 of 2008);
 - Waste Management (Food Waste) Regulations 2009 (S.I. No. 508 of 2009), as amended 2015 (S.I. 190 of 2015);
- Protection of the Environment Act 2003 (as amended);
- Litter Pollution Act 1997 (S.I. No. 12 of 1997) as amended.

The above Acts and subordinate Regulations enable the transposition of relevant European Union Policy and Directives into Irish law.

In addition to the above, this oRWMP has been prepared with reference to and taking account the additional following legislation, plans, and waste management guidance documents:

- CIRIA (1997), 'Waste minimisation in construction - site guide (SP133)';
- Department for Environment, Food & Rural Affairs (DEFRA) (UK) (2009) 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites';
- EPA (2021), 'Best Practice Guidelines on the Preparation of Resource & Waste Management Plans for Construction and Demolition Projects';
- EPA (2021), 'National Hazardous Waste Management Plan 2021-2027';
- DCC (2022), 'Dublin City Development Plan 2022 - 2028'.

4. Roles & Responsibilities

All parties involved in the proposed development will have responsibility for waste management, though responsibility will vary at different stages of the proposed development lifecycle.

Key responsibilities are set out in Table 1-1; however, some responsibility assignments may change depending on the agreed proposed development contractual arrangements and design requirements.

Table 1-1. Key Contractor Team Roles and Responsibilities (Indicative)

Role	Responsibilities	Proposed Development Stage
Applicant	Establish ambition and performance targets for the proposed development.	Initiation and subsequent tendering phases.
	Appointment of competent principal contractor and design team.	All stages
	Responsibility of waste management from 'cradle to grave', including documentation of same.	
Principal Contractor	Development and implementation of a detailed Construction, Demolition, Resource & Waste Management Plan taking account of the framework set out in the oCDRWMP	Implementation
	Appoint competent and authorized waste management contractor(s)	Tendering phase
	Appoint trained, competent Resource Manager	Construction stage
Resource Manager	CDRWMP implementation	Implementation
	Ensure that the objectives of the CDRWMP are achieved.	Construction stage
	Waste characterisation; selection of techniques and design to minimise waste and maximise recovery and recycling during the Proposed Development.	Design phase and during implementation
	Maintenance of Waste Documentation for 3 years	Post-construction stage
	Completion of Final Waste Management Report	Construction stage
	Educate colleagues, site staff, external contractors, and suppliers about alternatives to conventional construction waste disposal	Design phase and during implementation
Design Team	Identification of Key Waste Streams	Design phase
	Design to minimise waste generation in lifecycle of completed construction	
	Design of Soil Management Plan	
Subcontractors	Adequately provide for waste management in tender documents and declare all relevant information & data	Tendering phase
	Comply with CDRWMP	Construction stage Post-construction stage
Waste Collection Contractor	Hold a valid Waste Collection Permit	Construction stage
	Be permitted to collect the particular waste and collect waste within DCC area	
	Use a waste collection vehicle identified on the Waste Collection Permit	
	Transfer the waste to a licenced waste facility identified on the Waste Collection Permit.	

5. Awareness & Training

All site personnel and sub-contractors will be instructed about the objectives of the oCDRWMP and the Contractor's CDRWMP and informed of the responsibilities which will fall upon them as a consequence of their provisions.

Where source segregation and selective material reuse techniques apply, each member of staff will be given instructions and training on how to comply with the CDRWMP. Specialist training (e.g., handling of contaminated soils) will be assessed and provided, as required.

Copies of the oCDRWMP and the Contractor's CDRWMP will be made available to all personnel on site. Additionally, posters will be designed to reinforce the key messages within the CDRWMP. These will be displayed prominently for the benefit of site staff.

6. Monitoring & Inspections

Regular site monitoring and inspection activities, such as inspection of waste segregation/storage areas, will be carried out by the appointed Resource Manager throughout the construction stage to monitor compliance with the oCDRWMP and Contractor's CDRWMP. The frequency of these monitoring and inspection activities will be agreed in advance of construction with the Applicant and would be in line with planning conditions set out by DCC.

Additional monitoring and inspection will take place outside of the agreed frequency where an incident occurs or where activities that can have a significant environmental impact are occurring. It is anticipated that a daily visual check and a detailed weekly check will be carried out. The results of these inspections will be recorded, and these records will be available to DCC upon request.

7. Waste Management Documentation

The Principal Contractor will be responsible for preparing, implementing, and auditing a waste documentation system on a regular basis. All waste records will be maintained by the Principal Contractor for at least a period of 3 years and must be subject to verification and validation as well as available for inspection. The Applicant's representative may also undertake verification auditing.

These documents will be stored in a safe place, preferably on-site, during the implementation phase of the proposed development. Electronic records will be placed on a secure server that is backed up regularly.

Allowance of time and resources will be made to collate outstanding waste records once the implementation phase of the proposed development has been completed.

The documentation to be maintained, as a minimum, shall be the following:

- The names of the agent(s) and transporter(s) of the wastes;
- The name(s) of the person(s) responsible for ultimate recycling, recovery, or disposal of the wastes;
- The ultimate destination(s) of the wastes;
- Written confirmation of the acceptance and recovery, recycling, or disposal of any waste consignments (including weighbridge tickets confirming weight, where available);
- The quantities and List of Waste (LoW) code for all waste materials;
- Details of any rejected waste consignments;
- Waste Transfer Forms (WTF) for hazardous wastes transferred from Site and associated appendices, if any should be encountered. These must include the following:
 - Details of the site that the hazardous waste is removed from;
 - Details of waste disposal site;
 - Waste producer details if different to site details;
 - Description of the waste (written description, assigned List of Waste (LoW) code(s));
 - Details of process that has generated this waste (including Standard Industrial Classification (SIC) code);
 - Specific details of the waste-quantity, chemical/biological components, physical form, and hazardous properties any special handling requirements;
 - Signature of consignor once completed;
- Waste transfer notes for all non-hazardous waste. These must include the following and should be reported:
 - Accurate description of the waste type (written description, LoW and SIC codes);
 - Quantity and containment of waste;
 - Location, time and date of the waste transfer;
 - Names of both persons involved in the waste transfer;
 - Details of the waste carrier and facility, both must be licensed;
 - Waste carrier's registration number;
- Written documentation of waste classifications and quantities, including any related analyses;
- Certificates of Recycling, Recovery, Reuse or Disposal for all wastes transferred from the site.

8. Waste Hierarchy

Off-site handling of waste generated by the proposed development are subject to the required statutory authorisations under the Waste Management Act. In addition, the Contractor shall establish a system for the management of wastes in accordance with the Waste Management Hierarchy which outlines that waste prevention and minimisation are the first priority in managing wastes, followed by waste reuse and recycling. Disposal of waste shall only be considered as a last resort. The management of all hazardous waste materials, if they occur, will be coordinated in liaison with Health and Safety Management. The EU Waste Directive (2008/98/EC) also mandates that hazardous waste generation should be avoided or at least limited.

The Waste Hierarchy only applies to material that is defined as 'waste', and not to the proportion of the spoil that is handled on-site in conformity with the statutory exclusions. The Waste Hierarchy will be activated for any material which does not satisfy the exclusions. In this regard, the contract documents for the detailed design/construction of the proposed development will clearly set out the staged approach which the contractor will be required to adhere to through the use of the Waste Hierarchy.

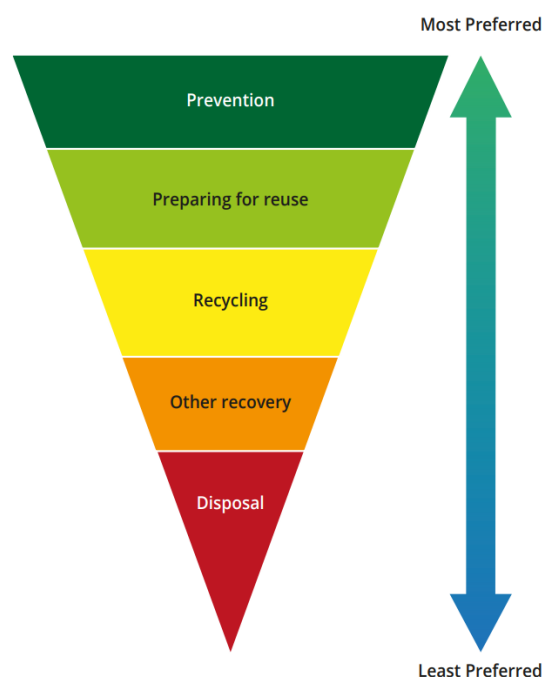


Figure 1.4 EU Waste Hierarchy (EPA)

Definitions of key terms indicated in Figure 1.4 are set out in the Waste Framework Directive as follows (in order of priority):

- **Prevention** includes measures taken before a substance, material or product has become waste, that reduce (a) the quantity of waste, including through the reuse of products or the extension of the lifespan of products, (b) the adverse impacts of the generated waste on the environment and human health or (c) the content of harmful substances in materials and products;
- **Reuse** is defined as any operation by which products or components that are not waste are used again for the same purpose for which they were conceived;
- **Recycling** is any recovery operation by which waste materials are processed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations;
- **Recovery** is defined as any operation, the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.

9. Resource & Waste Management, Control, & Mitigation Measures

9.1 Waste Identification, Classification, Quantification & Handling

The Contractor shall establish a procedure to identify and classify all waste arising at the site and to assign each waste stream and appropriate LoW Code. The Contractor shall ensure that the waste materials generated during the works are clearly identified as either hazardous or non-hazardous wastes, with reference to the guidance from the EPA (e.g., 'Waste Classification: List of Waste & Determining if Waste is Hazardous or Non-hazardous' (2018), 'Procedure for the Identification of the Hazardous Components of Waste' (2021)) where required, and shall establish designated waste storage areas for the different types of waste that may arise.

The majority of waste generated will arise from the stripping and demolition of existing buildings and will comprise of materials including concrete, brick, timber and glass. In addition, soil and asphalt will be excavated during the course of the C&D works. The Contractor shall dispose of any waste material suitable for recycling to the nearest convenient recycling centre. Should appropriate reuse be required and practical, clean concrete and soil can be retained on site and reused in areas of backfilling and soft landscaping (soil). A record of the volumes and reuse requirements will be maintained by the Principal Contractor as part of their SWMP.

During the construction phase, there will be some building material and packaging waste generated. This will mainly include excess ready-mix concrete and mortar, timber off cuts, plastics, metal off cuts, cladding and tile offcuts, as well as plastic and cardboard waste from packaging and potential over-supply of materials.

Where possible, individual waste arisings shall be identified, classified and quantified (volume, weight) as early in the project lifecycle as possible but, inevitably, unanticipated waste arisings may occur as site work progresses, necessitating the need for a procedure to provide for waste classification as the site work proceeds.

It is anticipated that the majority of non-hazardous and inert waste generated will be suitable for reuse, recovery or recycling and will be segregated to facilitate the reuse, recovery and/or recycling, where possible.

It is recommended that all materials suitable for recycling should be deposited at the nearest convenient recycling facility. A record of the volumes and reuse requirements will be maintained by the Contractor as part of their SWMP.

For each waste stream identified by the contractor and for each additional waste stream that may arise during the course of the works, the Contractor shall identify the following:

- An appropriate waste classification and applicable LoW code;
- A suitable Waste Collection contractor in possession of a valid Waste Collection Permit for the collection of waste (relevant to the type of waste requiring collection) within the DCC area;
- Appropriate waste recovery, recycling, or disposal facilities, including any required transfer stations. All facilities identified shall be in possession of a valid Waste Facility Certificate of Registration, Permit or Waste Licence, as appropriate;
- The recovery or disposal method for the waste.

Where possible, waste arising for the proposed development will be segregated, identified, quantified (volume and weight), and classified by the principal contractor in accordance with applicable waste regulations and guidance as early in the lifecycle of the proposed development as possible. Waste shall not be removed from the site until properly classified, assigned an appropriate LoW code, and all appropriate tracking and disposal documentation is in place.

A non-exhaustive list of anticipated wastes from the C&D works phase and preliminary classification as either hazardous or non-hazardous is presented in Table 1-2.

Table 1-2. Potential Non-Hazardous and Hazardous Waste Classification

Hazardous waste*	Non-hazardous waste*
<ul style="list-style-type: none"> • Excess electrical & electronic components • Asbestos • Asphalt (bituminous) • Arsenic • Liquid fuels • Batteries • Brick and stone (contaminated with dangerous substances) • Concrete (contaminated with dangerous substances) • Excavated soil (contaminated with dangerous substances) • Other C&D wastes containing dangerous substances 	<ul style="list-style-type: none"> • Asphalt (non-bituminous) • Tiles and Ceramics • Glass • Metals (stainless steel, mild steel, copper, aluminium) • Wood (clean), glass, plastic, paper, and cardboard • Brick and stone (not contaminated with dangerous substances) • Concrete (not contaminated with dangerous substances) • Excavated soil/fill (not contaminated with dangerous substances) • Municipal waste

* Some waste streams may require testing and classification to determine whether hazardous or non-hazardous

Wastes shall not be removed from the site until properly classified, assigned a correct LoW code and all appropriate tracking and disposal documentation is in place.

For each waste stream identified and classified, and for each waste stream that may arise during the course of the works, the following shall be identified and documented by the Principal Contractor in their SWMP:

- **An appropriate waste classification and correct LoW code;** Where a waste type is considered a mirror entry, the classification of materials as non-hazardous and/or hazardous waste will be determined based on the www.hazwasteonline.com web-based waste assessment system (as recognized by the Environmental Protection Agency) and using Waste Acceptance Criteria in accordance with the European Communities (EC) Council Decision 2003/33/EC, which establishes criteria for the acceptance of waste at landfills;
- **A suitable Waste Collection Contractor** in possession of a valid Waste Collection Permit for the collection of waste within the Dublin City Council area;
- **Appropriate waste recovery, recycling or disposal facilities,** including any required transfer stations whereupon the said facilities shall be in possession of a valid Waste Facility Certificate of Registration, permit or Waste License, as appropriate;
- **A recovery, recycling or disposal plan for the waste, where applicable.** Where any material is being recovered onsite or offsite for reuse; the Principal Contractor will provide confirmation of any application to the EPA under Article 275 or Article 286 to classify material as a by-product or as end of life waste respectively; and
- **Final reconciled waste quantities generated,** including details of waste disposal, reuse and recovery quantities.

9.1.1 Segregation & Storage

Waste generated during works will be segregated and temporarily stored on-site (pending collection or for reuse on-site) in accordance with a pre-determined segregation and storage strategy to be developed by the Principal Contractor as part of their SWMP.

The following minimum segregation and storage strategy requirements will be implemented into the Contractor's CDRWMP:

- Waste materials generated will be individually segregated at the site compound, where possible. Where the on-site segregation of certain types of waste is not practical, off-site segregation will be carried out;
- A dedicated and secure area will be located within the site compound containing bins, skips, and/or other storage areas into which all waste materials generated by construction site activities are to be stored. The waste storage area should contain suitably sized containers for each waste stream, to be agreed with waste contractors in advance of commencement of the proposed development;
- Roles and responsibilities of those managing the segregation and storage areas will be identified;
- All segregation, storage, and stockpiling locations will be clearly delineated on site drawings;
- Waste and fuel storage, stockpiling, and movement are to be undertaken with a view to protecting any essential services (i.e., electricity, gas, water);
- All waste receptacles leaving the site will be covered or enclosed;
- Materials shall be handled and stored with care and placed rather than dropped, where possible. Stored materials will be kept at a suitable height. Drop heights of materials from lorries and other plant shall be kept to a minimum;
- Where practicable, the loading and unloading of materials shall take place away from residential properties, ideally in locations which are acoustically screened;
- Double handling of materials will be avoided where possible;
- Leaking or empty fuel drums shall be removed from the site immediately and disposed of via an appropriately licensed waste disposal contractor.

In addition, wastes requiring on-site storage shall be stored in such a manner as to:

- Consider the location of sensitive receptors, sensitive core activities associated with operation of other businesses, any potential sources of pollution, and ameliorating conditions such as prevailing wind directions and speeds, typical precipitation and the topography of the site and surrounding environs. Stored materials will be kept at a suitable distance from the site boundary and sensitive receptors, where possible;
- Prevent environmental pollution (bundled and/or covered storage, minimise noise generation and implement dust/odour/pest control measures, as may be required);
- Maximise waste segregation to minimise potential cross contamination of waste streams and facilitate subsequent reuse, recycling, and recovery;
- Prevent hazards to site workers and the general public during construction phase (largely noise, vibration, dust, and pests).

9.1.2 Waste Permitting, Licences & Documentation

Under the Waste Management (Collection Permit) Regulations 2007 (as amended), a collection permit to transport waste, which is issued by the National Waste Collection Permit Office (NWCPO), must be held by each waste collection contractor. Therefore, only contractors in possession of a valid Waste Collection Permit shall collect wastes from the site. The Principal Contractor shall ensure that the waste collection Contractor:

- Is permitted to collect the relevant type of waste;
- Is permitted to collect waste within DCC area;
- Uses a waste collection vehicle identified on the Waste Collection Permit;
- Transfers the waste to a licenced waste facility identified on the Waste Collection Permit.

The Principal Contractor shall advise DCC or its representatives in advance if it proposes to act as the waste collection Contractor, subject to agreement. In that case, the Contractor shall ensure that it has the relevant Waste Collection Permit(s) in place prior to commencement of the proposed development.

Waste may only be treated or disposed of at facilities that are licenced or permitted to carry out that specific activity (e.g., recovery, chemical treatment, landfill, incineration, etc.) for a specific waste type. Operators of such facilities cannot receive any waste, unless they are in possession of a Certificate of Registration (COR), or waste permit granted by the relevant Local Authority under the Waste Management (Facility Permit & Registration) Regulations 2007 and Amendments, or a waste licence granted by the EPA. The COR/permit/licence held will specify the type and quantity of waste permitted to be received, stored, recycled, recovered and/or disposed of at the specified site.

Records of all waste movements and associated documentation should be held at the site. Their management and maintenance will be the responsibility of the Principal Contractor.

9.2 Limiting & Prevention of Waste

The following waste limiting measures will be implemented during the construction phase of the proposed development:

- Recycling and appropriate disposal will be facilitated by on-site segregation into appropriate categories of all waste materials generated during construction;
- Wherever possible, leftover materials (e.g., timber off cuts) will be reused on-site;
- All waste assessed by the Resource Manager as 'not suitable for reuse' will be stored in skips or other suitable receptacles in a designated area of the site, to prevent cross contamination between waste streams, dispersion, and leaching;
- Uncontaminated excavated material (topsoil, subsoil, etc.) will be segregated, stockpiled, and reused on-site in preference to importation of clean fill, where possible (subject to prior demonstration of environmental and geotechnical suitability);
- If uncontaminated excavated material cannot be used on-site, the potential for its transfer to another site under, for example, Article 27 of the European Communities (Waste Directive) Regulations 2011, will be explored;
- Where possible, the Resource Manager will ensure that all waste leaving the Site will be recycled or recovered.

9.3 Soil Management

9.3.1 Soil Management Plan

Construction works during the Proposed Development will result in the excavation of soils, though volume estimates (i.e., cut and fill estimates) were not available at the time of preparation of this oCDRWMP.

Prior to detailed design stage, in the event that significant excavation is required to facilitate the development of e.g. basements or attenuation ponds, an intrusive site investigation may be required to inform soil waste classification. This will highlight any localised hotspots of contamination encountered during the site investigation. It is also possible that other hotspots of contaminated materials may be encountered during the demolition and enabling works stage.

Taking Section 9.3.1 into consideration, the principal contractor shall develop, where applicable, a Soil Management Plan (SMP) as part of their CDRWMP to outline the proposed procedures for the management and reuse of excavated materials from the proposed development (where reuse is permitted in accordance with the relevant legislation and provided that the reuse meets the engineering requirements for material used within the works).

The SMP should:

- Detail in-situ (prior to excavation) and ex-situ (post excavation) methodologies to classify waste soil for appropriate management (e.g., reuse, recovery, disposal) in accordance with relevant Irish and EU legislation and guidance;
- Identify, in consultation with the design team, reuse requirements and soils suitable for reuse on-site including assessment methodology to determine which soils are suitable for reuse on-site;

- Define site management procedures, including waste reduction, stockpile management, temporary storage procedures, waste permit/licence requirements, if any (e.g., for mobile crusher);
- Determine depth and method of topsoil stripping and stockpiling, including separation of topsoil resources of different potential;
- Identify landscaping topsoil requirements and assessment of suitability and availability of on-site resources (if appropriate);
- Detail relevant procedures for unexpected finds of contaminated materials on-site, including measures for the handling, treatment, and management of contaminated materials;
- Describe means of protection of subsoil from compaction damage and remedial measures (ripping/subsoiling) for any necessary reinstatement;
- Identify means of erosion control and measures to prevent sediment laden run-off entering watercourses/standing water bodies;
- Detail the Waste Management documentation procedures including those for waste generation record keeping, for preparation of waste transfer notes/documentation, for completion of waste log(s), for confirmation of appropriate disposal and reconciliation of the waste log(s), and for recording of details of any rejected consignments and associated investigation and corrective actions.

9.3.2 Management of Excavated Soils & Materials

The Principal Contractor's CDRWMP shall detail relevant procedures for the management of excavated materials.

Where necessary to supplement the existing soil data, these should include procedures for further environmental sampling, testing, and assessment requirements; sampling protocols; and sample density targets.

Where any hotspots of potential contamination are encountered, and prior to disposal, further assessment must be undertaken by a suitably qualified environmental scientist to determine whether remediation is required, the nature and extent of such remediation, whether the materials are suitable for reuse, and the waste classification of the materials should recovery or disposal be required.

In addition, if any archaeological features or deposits are encountered during excavation, appropriate archaeological monitoring and evaluation should be conducted to ensure that any significant archaeological findings are identified and managed in accordance with relevant heritage regulations and practices.

9.3.2.1 Soil for Reuse on-site

The Principal Contractor is required to maximise the reuse of uncontaminated excavated soils where possible. Where the Principal Contractor proposes to maximise the reuse of excavated soil to minimise the generation of waste, they shall propose how this reuse will be managed and documented to the satisfaction of DCC or its representatives.

This shall include the following as a minimum:

- Identification of, and recording of the location from where the material is to be excavated;
- Delineation of areas where excavated soil is intended for disposal as waste, and where it is intended for reuse (where permitted);
- Delineation of areas of contaminated and uncontaminated soil (if present);
- Identification the requirement to sample soils proposed for reuse following excavation (the number and location of soil samples, details of the analysis to be scheduled and the laboratory proposed to carry out the testing);
- The criteria for assessing whether the soil is contaminated or uncontaminated and its environmental suitability for reuse for the proposed purpose;
- Any proposed treatment or processing required to enable its reuse (if any), as well as any associated treatment permits/licences required;

- Detail of the engineering assessment(s) required to confirm its suitability for its proposed reuse purpose.

9.3.2.2 Soil for Recovery or Disposal

Where appropriate, excavated soil and material intended for recovery or disposal off-site shall require appropriate waste classification in order to select an appropriate receiving facility for the waste.

Assessment of the excavated material shall be carried out with due regard to the following guidance and legislation:

- 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);
- Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures (CLP);
- (EPA) 'Waste Classification: List of Waste & Determining if Waste is Hazardous or Non-hazardous' (2018);
- EPA (2020), 'Guidance on waste acceptance criteria at authorised soil recovery facilities';
- Any other relevant guidance or legislation applicable at the time of assessment.

Waste soil and material intended for off-site disposal, recycling, or recovery shall not be removed from site prior to appropriate waste classification and receiving written confirmation of acceptance from the selected permitted waste receiving facility.

9.3.2.3 Soil for reuse off-site

Where excavated materials are proposed for off-site reuse, as a by-product notification under Article 27 of the European Communities (Waste Directive) Regulations, 2011, for example, the Contractor's CDRWMP shall set out the how it is proposed to demonstrate the suitability of the material for the proposed use in accordance with the EPA's 2019 'Guidance on Soil and Stone By-products Version 3'.

Excess soil and stone resulting from excavation works (the primary purpose of which is not the production of soil and stone) can be notified as a by-product if all four of the following product conditions are met:

1. Further use of the soil and stone is certain;
2. The soil and stone can be used directly without any further processing other than normal industrial practice;
3. The soil and stone are produced as an integral part of a production process;
4. Further use is lawful in that the soil and stone fulfil all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts.

Article 27 may be a viable option for the reuse of materials to be excavated from the site, provided that an appropriate receiving site can be identified for which the excavated materials meet the engineering requirements, and which has planning permission (or an exemption) for the importation of soil.

Any Article 27 notification to be made would need to demonstrate the conditions precedent are met and would require a bespoke assessment to demonstrate environmental and geotechnical suitability.

The CDRWMP shall document the assessment and management procedures associated with any proposed off-site reuse of excavated materials.

9.3.2.4 Transport of Excavated Materials

To minimise potential traffic impacts of excavation activities, truck movements will be limited to designated routes, and movements during peak hours will be avoided as far as possible.

Details of such provisions will be included in the Traffic Management Plan (TMP) for the works as part of the Principal Contractor's detailed CEMP.

Refer to Section 4 of the oCEMP produced by AECOM for the outline Construction Traffic Management Plan (oCTMP)

9.3.2.5 Stockpile Management

Soil stockpiles might be generated as part of the operations, for example while classification and acceptance at a waste facility is pending, or while materials are awaiting reuse.

The Principal Contractor should implement the following measures to ensure that stockpiles are managed in an appropriate manner:

- A suitable temporary storage area shall be designated and identified;
- All stockpiles shall be assigned a stockpile number/ID which is displayed on a sign at or on the stockpile;
- Stockpiles shall be documented in the stockpile register;
- Stockpiles shall not be positioned adjacent to ditches, surface waters or existing or future excavations;
- Contaminated or potentially contaminated soil shall be stockpiled only on hard-standing or high-grade polythene sheeting to prevent cross-contamination of the soil below;
- Soil stockpiles shall be covered with high-grade polythene sheeting to prevent run-off of rainwater and leaching of potential contaminants from the stockpiled material generation and/or the generation of dust;
- Mixing of unclassified stockpiles of different origin, or of stockpiles having different classification, should not be carried out. When a stockpile has been sampled for classification purposes, it shall be considered to be complete, and no more soil shall be added to that stockpile prior to disposal.

An excavation/ stockpile register shall be maintained on-site showing at least the following information:

- Stockpile number/ID;
- Origin (i.e., location and depth of excavation);
- Approximate volume of stockpile;
- Date of creation;
- Description of material;
- Information on waste classification/reuse assessment;
- Date sampled (if applicable);
- Date removed from the Site;
- Disposal/recovery/reuse destination;
- Photograph.

9.4 Hazardous Materials Waste Management

Hazardous waste will be generated during the course of the demolition and enabling works stage (refer to Table 1-2).

Where hazardous waste is generated, the Principal Contractor will undertake the following:

- Immediate notification of the nature of the hazardous waste to the design team in writing;
- If the waste was unexpected/previously unidentified, submission of a revised CDRWMP detailing the nature and management of the hazardous waste stream prior to off-site waste disposal.

Ground Investigations were undertaken by Ground Investigations Ireland in November 2024 for the proposed site. As part of the assessment, laboratory testing was undertaken for asbestos materials. No asbestos materials were detected as part of the assessment.

An asbestos survey was undertaken by Iota Group Consulting and Laboratory on the 3rd of December 2024. The surveyed areas of significant interest were noted to be Flat 24 Thomas Court, Dublin - 2nd Floor, Flat 32 School Street, Dublin - 3rd Floor and 4th Floor – Duplex void flat, School Street Apartment Block Stairwells – External, and School Street Apartment Block Roof – External. No asbestos was found in the flats surveyed.

Asbestos surveys and reports carried out by OHSS Safety Consultants on behalf of DCC on the 13th of June 2022, identified asbestos in surveyed buildings 6, 18, 22, and 36 Thomas Court Bawn. Asbestos was encountered during the survey, however, it is unclear whether the asbestos was later removed or not.

Where asbestos containing materials (ACMs) are encountered during excavation works, the principal contractor shall establish a specific procedure for the management of asbestos wastes that may arise during the demolition and enabling works.

The management of such wastes shall be coordinated with the Applicant's representative and in accordance with the Safety and Health Plan for the overall works, in order to ensure that personnel within the construction site and the local residents are protected against exposure to asbestos.

Prior to commencement of any asbestos removal works, the principal contractor shall identify a suitable Waste Collection contractor with a Waste Collection Permit for the transfer of asbestos wastes from the site.

9.5 Waste Audits

Details of the inputs of materials to the site and the outputs of waste arising from the proposed development will be investigated and recorded during waste audits undertaken by the Principal Contractor at regular intervals through the construction phase of the proposed development, in line with requirements of DCC or any planning consent conditions. These audits will identify the amount, nature, and composition of the waste generated on the Site.

The waste audits will examine the manner in which the waste is produced and determine the effectiveness of the waste management strategy and the best methods for waste minimisation, reduction, reuse, recycling, and disposal as the construction phase progresses and waste materials are generated. The findings of these audits will be incorporated into the Contractor's CDRWMP and inform if updated are necessary.

The design team may undertake verification audits to review the findings of the Contractor's audits during the course of the construction phase.

10. Financial Issues of Waste

An outline of the cost issues that should be considered associated with different aspects of waste management is provided below.

10.1 Reuse / Recovery

By reusing materials on site, there will be a reduction in the transport and disposal costs associated with the requirement for a waste contractor to take the material away to landfill. Clean and inert soils, gravel, stones etc. which cannot be reused on site may be classified as a by-product (under Article 27 of the 2011 Waste Directive Regulations), used as capping material for landfill sites, or for the reinstatement of quarries etc. subject to approvals by EPA. This material is often taken free of charge for such purposes, or when used as capping in landfills will not attract the landfill tax levy, thereby reducing final waste disposal costs.

10.2 Recycling

Salvageable metals will earn a rebate which can be offset against the cost of collection and transportation of the skips. Clean, uncontaminated cardboard and certain hard plastics can be recycled. Waste contractors will charge considerably less to take segregated wastes such as recyclable waste from a site than mixed waste. Timber can be recycled as chipboard. Again, waste contractors will charge considerably less to take segregated wastes, such as timber from a site, than mixed waste.

10.3 Disposal

Landfill charges in the Leinster region are currently significantly higher for non-hazardous waste than for inert waste.

In addition to disposal costs, waste contractors will also charge a collection fee for skips. Collection of segregated C&D waste usually 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, etc. is also used as fill/capping material wherever possible.

11. Summary

This oCDRWMP shall be further refined and expanded by the Principal Contractor into a full CDRWMP as more information becomes available and there is more certainty in terms of the proposed layout, construction methods, programme, and expected types and quantities of waste to be generated from the proposed development.

The Principal Contractor's CDRWMP should be treated as a 'live' document and periodic review and updating of the CDRWMP should be informed by the regular audit findings.

The oCDRWMP should be read in conjunction with the oCEMP and all other relevant documentation, drawings, and reports prepared for the proposed development.

