

Outline Construction and Demolition Waste Management Plan



Dolphin House Phase 2, Demolition Works (Flats 45 – 68 & 69 – 92)



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Dolphin House, Phase 2, Demolition Works (Flats 45 – 68 & 69 – 92): Part 8 Planning Application

1.0 Introduction

The site is located at Dolphin House flat complex in Dolphins Barn, Dublin 8 which is in the Dublin City Council Area South Central. The Dolphin House complex was constructed in the 1950's and the complex itself sits on 18.5 acres and once comprised of over 430 homes (made up of flats in 6 blocks through the estate and also senior citizen units). A phased regeneration is currently underway with Phase 1 completed in 2018/2019. The second phase of the regeneration requires the demolition of two flat blocks which are located to the eastern side of the Dolphin House complex as shown in Figure 1 below. Each block contain 23 flats each which are a mixture of 1 and 2 bed units.

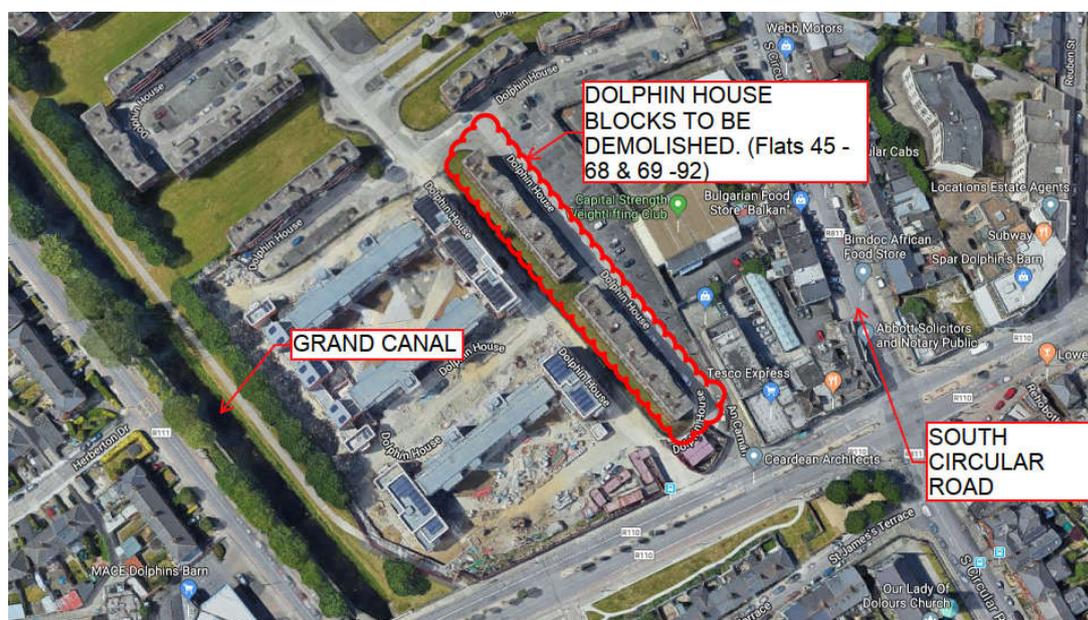


Figure 1: Aerial View of two blocks to be demolished, Flats 45 – 68 & 69 -92.

2.0 Background to Construction Waste & Demolition Management

This outline plan will provide an indicative overview of what is expected in terms of waste materials generated from the proposed project. A more detailed plan will be required from the appointed contractor.

The purpose of the Outline C&D WMP is to provide information on how the management of waste produced by the site may be carried out and also how it should be in accordance with all current legal and industrial standards including;

- Waste Management Act 1996 & associated regulations
- Litter Act 1997
- Packaging Regulations 2003
- Waste Management Plan for Dublin Region 2005-2010.

Guidance is also be given to ensure appropriate method of transportation of Waste is used to prevent littering or other serious environmental pollution.

- Best Practice Guidelines on the preparation of waste management plans for construction and demolition projects, Department of the Environment and local Government 2005.
- Construction and Demolition waste management - A hand book for contractors and site managers, FAS and the construction industry federation 2002.

These guidelines cover issues to be addressed at the preplanning stage right through to project completion and these include;

- Predicted Construction and demolition wastes;
- Waste disposal/recycling of C&D wastes at the site;
- List of sequence of operations to be followed;
- Provision of training for waste managers and site crew;
- Details of proposed record keeping system;
- Details of waste audit procedures and plans;
- Details of consultation with relevant stakeholders.

Section 3 of the guidelines outline the threshold to which the plans are prepared to. This particular development falls into the category of (3.1.3):

'Demolition/renovation/refurbishment projects generating in excess of 100m³ in volume, of C&D waste'

3.0 National, Regional and Legislation Requirements

At Regional level this development is located in the area of Dublin City Council which is covered by the Dublin regional waste management plan 1999, revised for 2005-2010.

The primary objective of this outline plan is to achieve more sustainable waste management practices through increased recycling, use of source separation and

use of industry code to regulate collection and treatment of waste. The plan, as a minimum, shall include a provision for the management of all construction and demolition waste arising on site, shall make provision for the recovery or disposal of this waste to authorized facilities by authorized collectors. Where appropriate, the use of excavated material from development sites is to be re-used and proposed for landscaping, land restoration or for preparation for development.'

Current legislation implies that the waste producer is responsible for waste from the time it is generated to point of legal disposal. Waste contractors must comply with the Waste Management Act 1996 and associated regulations. A permit to transport waste issued by Dublin City Council must be obtained and requires contractor to handle, transport and dispose waste in a manner which ensures no adverse environmental impacts occur as a result of these activities. Likewise, the facilities receiving waste must hold the appropriate licence under Waste Management (Facility Permit & Registration) regulations 2007 or by EPA. This Permit will include information such as type of waste that can be received along with stored, sorted, recycled and or disposal materials at the site.

This Outline Construction and Demolition Waste Management Plan will only refer to the demolition stage of the project as any proposed construction plans will be subject to a separate planning application and therefore a separate Construction and Demolition Waste Management Plan.

4.0 Description of the Proposed Development

4.1 Existing Site

The Dolphin House comprises of over 430 homes (made up of flats in 6 blocks through the estate and also senior citizen units). The area of the Dolphin House site which is subject to the proposed demolition consists of 2 flat blocks with each block contain 23 flats each which are a mixture of 1 and 2 bed units.

4.2 Proposed Development

This Outline Construction and Demolition Waste Management Plan is for the demolition of the existing two blocks (Flats 45 – 68 & 69 -92) which are known as the 'Long Blocks'. No new construction works are proposed other than those necessary to secure the site or divert services. The demolition works are proposed due to ongoing anti-social behaviour located in and around the flat blocks. This is especially the case in the area to the south the two blocks where passive surveillance is at its weakest. The redevelopment of the site will be the subject of a separate planning application. It is proposed to demolish the two blocks entirely, together with grubbing up the existing road and footpaths which surround the site as well as a small service block located to the north of the site. The foundations of the buildings will be removed, and all services will be removed insofar as this is practicable. The existing hard standing/parking area and roads and footpaths on the site will be grassed and surrounded with a low slipform kerb

or boundary fence with access gates for grass cutting and general maintenance.

The proposed access for the development is off the South Circular Road in Dolphins Barn. *Figure 1 outlines the* location of the proposed development site and it is anticipated that all construction vehicles will use the main entrance to Dolphin House from the South Circular Road.

4.3 Outline Demolition Plan

It is anticipated that the works of the appointed demolition contractor will consist of the following non-exhaustive activities:

- Securing site with installation of hoarding
- Setting up site facilities
- Review of services location and carrying out works to protect retained services
- Initial clearing of site (sign posts, close line poles, bin stores etc)
- Strip out of internal items/structures of the two blocks (if required)
- Demolition of the two blocks
- Grubbing up of hard standing areas and foundations
- Installation of slip-form kerb
- Preparing site for top soiling
- Final finishes and removal of hoarding
- Demobilisation

4.4 Segregation of Materials

Waste generated on site must be identified and segregated accordingly. In order to enable this, it is anticipated that works will be carried out in a phased basis to aid the segregation of the materials expected to be encountered during the strip out works. As materials are being taken down from the interior of the buildings they should be assessed for reuse. Any reusable materials should be set aside in a designated area of the site for transport to a licensed recycling facility. All non-reusable material should be segregated and disposed into specific skips located on a designated area of the site.

4.5 Demolition Waste Management

Waste skips should be provided within the site and it is anticipated these will be located to the north of the site where they skips can be collected easily. The skips will exit the site via the main entrance and out onto the South Circular Road.

It will be a requirement of the appointed contractor to provide monthly reports regarding the management of the waste during the works and will be required to

forward these reports to the Waste Regulation Unit of Dublin City Council.

4.6 Source Separation

The source-separation of all materials arising from demolition on site for recycling is generally more cost effective than disposal of mixed materials to a waste facility.

5.0 Waste Arising

It is anticipated that the following waste will be

It is expected that the entire block will contain various waste materials such as:

- Plastics
- Timber
- Concrete rubble
- Metals
- Hazardous Materials (Asbestos, Lead Paint)
- Municipal Waste
- Bitumen
- Electrical Waste
- Plasterboard

From reviewing the planning drawings a total amount of demolition waste can be estimated. Table 1 below outlines the amount of waste and the anticipated amount of trucks which will be required to remove off site.

European Waste Code	Waste Material Description	Estimated Quantity (Tonnes)	No. of Skips/Trucks
17.08.02	Plasterboard	80	6
17.09.04	Mixed C&D Waste	200	15
17.02.01	Timber	200	15
17.01.07	Concrete, Block & Brick	7400	560
17.04.05	Iron & Steel	200	15
17.06.05	Asbestos – Non Friable	10	2

European Waste Code	Waste Material Description	Estimated Quantity (Tonnes)	No. of Skips/Trucks
20.01.21	Fluorescent Tubes	1	1
17.09.04	Other mixed C&D Waste	200	15
	Earth/Soil	840	52
Total			681

It is anticipated that there will be in region of 650 – 750 truck movements over the lifetime of the project. The above figure is only an estimate and it is likely to vary depending on the appointed contractor’s works proposals.

In terms of how many trucks and other construction vehicles will access and exit the site it can be estimated that one truck can take 4 - 5 loads per day dependant on how far the recycling facility is located. If the contractor had 4 trucks removing demolition waste from the site it would result in approximately 40¹ truck movements per day or 4 – 6 trucks per hour. These figures will fluctuate during the project and it is anticipated that there will be peak times during the demolition. It could be estimated that during the peak period of demolition the truck movements may increase slightly but the inverse is also true i.e. the truck movements will be reduced over certain periods. The duration of the peak period will depend on how the appointed contractor resources the project. It is difficult to calculate accurately the number of truck movements for the proposed demolition works but the above table gives an indication on the potential number of truck movements anticipated.

Notes:

1. The figure of 40 truck movements classifies entering and exiting the site as a separate movement i.e. a total of 2 truck movements.

6.0 Proposals for Minimisation, Reuse, Recycling and Management of C& D Waste

6.1 Waste Handling

Waste should only be treated or disposed of at facilities that are licensed to carry out that specific activity (e.g. recycling, landfill, incineration etc) for a specific waste type. Records of all waste movements and documents should be held on site and issued to Dublin City Council if required.

The demolition works should be planned with the waste management contractors in order to determine the best techniques for managing waste and ensuring a high level

of recovery of materials for recycling. The waste handling processes should be reviewed during the works and updated if required.

6.2 Primary Waste Streams

A brief overview of the potential methods to manage the primary waste streams expected is presented below. The main types of construction waste produced is expected to be:

Concrete, Blocks and Bricks

Waste concrete, blocks and brick will arise during the demolition and construction phases. Where possible, this waste will be removed off site to a remote facility and recycled for reuse.

Metals

Where possible all steel and non-ferrous metals will be transported to a metal processing facility for recycling. Skips are generally provided for the storage of scrap metal on site and once full will be removed by the waste storage contractor and transposed to a metal recycling processing facility.

Bitumen

Waste bitumen will arise during the demolition of existing carpark surface located to the north of the flat blocks. This will likely be mixed with concrete rubble. Bitumen/concrete waste disposal method will be nominated by the appointed contractor.

Timber

Timber waste will be stored separately as it is readily contaminated by other wastes and if it is allowed to rot will reduce the recyclability of the other stored wastes. Offcuts/pallets etc should be reused and/or recycled. Any timber waste will be removed off site to a remote facility and recycled for reuse

Plasterboard

Waste plasterboard from the demolition and construction phases will be segregated and stored on site prior to transportation to a recycling facility.

Plastics

Waste plasterboard from the demolition and construction phases will be segregated and stored on site prior to transportation to a recycling facility.

Other Wastes (Residual)

Waste materials other than those outlined above can constitute a significant proportion of the total waste generated by a construction site. This waste is normally made up of residual non-recyclable waste such as soiled paper, cloth, cardboard or some plastics. This material should be stored in dedicated waste containers. The

size, type and collection frequency should be assessed and reviewed throughout the site.

Waste Arising's from Excavations

The proposed demolition of the two flat blocks will require the excavation of the foundations and also the grubbing up of the hard standing areas. Excavated material will generally require disposal off-site to a licensed facility. The excavated material should be carefully stored and segregated at a designated staging area prior to the removal off site.

7.0 Assignment of Responsibilities and Training

The appointed contractor should ensure that a Construction and Demolition Waste Manager is appointed who has overall responsibility for the management of waste on site. The Construction and Demolition Waste Manager should be responsible for educating and all site staff.

All site personnel and subcontractors will be provided with a copy of the Waste Management Plan and also informed of the responsibilities which fall upon them.

Staff training should be carried out throughout the duration of the project.

8.0 Waste Recording and Auditing

8.1 Waste Records

Details of the construction and demolition waste discarded from the site will be recorded during all stage of the project. Each consignment of C&D waste removed from the site will be documented to ensure full traceability of the material to its final destination. All records should be retained on site and made available for auditing of the waste management plan

8.2 Waste Auditing

The appointed contractor should implement an auditing process to ensure the quality, effectiveness and efficiency of the environmental management system.