

**OPERATIONAL WASTE
MANAGEMENT PLAN
“SWORDS CULTURAL
QUARTER”**

**SWORDS TOWN CENTRE,
NORTH CO. DUBLIN.**

Report Prepared For

Fingal County Council

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1.0 INTRODUCTION

AWN Consulting Ltd. (AWN) has prepared this Operational Waste Management Plan (OWMP) on behalf of Fingal County Council. The proposed development relates to a new Swords Civic and Cultural Centre located on lands in Swords Town Centre.

This OWMP has been prepared to ensure that the management of waste during the operational phase of the proposed Development is undertaken in accordance with the current legal and industry standards including, the Waste Management Act 1996 – 2011 as amended and associated Regulations¹, Protection of the Environment Act 2003 as amended², Litter Pollution Act 1997 as amended³, the *'Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021'*⁴ and Fingal County Council (FCC) *'Fingal County Council Segregation, Storage and Presentation of household and Commercial Waste Bye-Laws'* (2020)⁵. In particular, this OWMP aims to provide a robust strategy for the storage, handling, collection and transport of the wastes generated at Site.

This OWMP aims to ensure maximum recycling, reuse and recovery of waste with diversion from landfill, wherever possible. The OWMP also seeks to provide guidance on the appropriate 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 plan estimates the type and quantity of waste to be generated from the development during the operational phase and provides a strategy for managing the different waste streams.

At present, there are no specific guidelines in Ireland for the preparation of OWMPs. Therefore, in preparing this document, consideration has been given to the requirements of national and regional waste policy, legislation and other guidelines.

2.0 OVERVIEW OF WASTE MANAGEMENT IN IRELAND

2.1 National Level

The Irish Government issued a policy statement in September 1998 titled as *'Changing Our Ways'*⁶ which identified objectives for the prevention, minimisation, reuse, recycling, recovery and disposal of waste in Ireland. A heavy emphasis was placed on reducing reliance on landfill and finding alternative methods for managing waste. Amongst other things, *Changing Our Ways* stated a target of at least 35% recycling of municipal (i.e. household, commercial and non-process industrial) waste.

A further policy document *'Preventing and Recycling Waste – Delivering Change'* was published in 2002⁷. This document proposed a number of programmes to increase recycling of waste and allow diversion from landfill. The need for waste minimisation at source was considered a priority.

This view was also supported by a review of sustainable development policy in Ireland and achievements to date, which was conducted in 2002, entitled *'Making Irelands Development Sustainable – Review, Assessment and Future Action'*⁸. This document also stressed the need to break the link between economic growth and waste generation, again through waste minimisation and reuse of discarded material.

In order to establish the progress of the Government policy document *Changing Our Ways*, a review document was published in April 2004 entitled *'Taking Stock and Moving Forward'*⁹. Covering the period 1998 – 2003, the aim of this document was to assess progress to date with regard to waste management in Ireland, to consider developments since the policy framework and the local authority waste management

plans were put in place, and to identify measures that could be undertaken to further support progress towards the objectives outlined in *Changing Our Ways*.

In particular, *Taking Stock and Moving Forward* noted a significant increase in the amount of waste being brought to local authority landfills. The report noted that one of the significant challenges in the coming years was the extension of the dry recyclable collection services.

In September 2020, the Irish Government published a new policy document outlining a new action plan for Ireland to cover the period of 2020-2025. This plan 'A Waste Action Plan for a Circular Economy'¹⁰ (WAPCE), was prepared in response to the 'European Green Deal' which sets a roadmap for a transition to a new economy, where climate and environmental challenges are turned into opportunities, replacing the previous national waste management plan "A Resource Opportunity" (2012).

The WAPCE sets the direction for waste planning and management in Ireland up to 2025. This reorientates policy from a focus on managing waste to a much greater focus on creating circular patterns of production and consumption. Other policy statements of a number of public bodies already acknowledge the circular economy as a national policy priority.

The policy document contains over 200 measures across various waste areas including circular economy, municipal waste, consumer protection and citizen engagement, plastics and packaging, construction and demolition, textiles, green public procurement and waste enforcement.

One of the first actions to be taken was the development of the Whole of Government Circular Economy Strategy 2022-2023 'Living More, Using Less' (2021)¹¹ to set a course for Ireland to transition across all sectors and at all levels of Government toward circularity and was issued in December 2021. It is anticipated that the Strategy will be updated in full every 18 months to 2 years.

Since 1998, the Environmental Protection Agency (EPA) has produced periodic 'National Waste (Database) Reports'¹² detailing, among other things, estimates for household and commercial (municipal) waste generation in Ireland and the level of recycling, recovery and disposal of these materials. The 2019 National Waste Statistics, which is the most recent study published, along with the national waste statistics web resource (November 2021) reported the following key statistics for 2019:

- **Generated** – Ireland produced 3,085,652 t of municipal waste in 2019. This is almost a 6% increase since 2018. This means that the average person living in Ireland generated 628 kg of municipal waste in 2019.
- **Managed** – Waste collected and treated by the waste industry. In 2019, a total of 3,036,991 t of municipal waste was managed and treated.
- **Unmanaged** – Waste that is not collected or brought to a waste facility and is, therefore, likely to cause pollution in the environment because it is burned, buried or dumped. The EPA estimates that 48,660 t was unmanaged in 2019.
- **Recovered** – The amount of waste recycled, used as a fuel in incinerators, or used to cover landfilled waste. In 2019, around 83% of municipal waste was recovered – a decrease from 84% in 2018.
- **Recycled** – The waste broken down and used to make new items. Recycling also includes the breakdown of food and garden waste to make compost. The recycling rate in 2019 was 37%, which is down from 38% in 2018.
- **Disposed** – Less than a sixth (15%) of municipal waste was landfilled in 2019. This is an increase from 14% in 2018.

2.2 Regional Level

The proposed Project is located in the Local Authority area of FCC.

The *EMR Waste Management Plan 2015 – 2021* is the regional waste management plan for the FCC area which was published in May 2015. Currently the EMR and other regional waste management plans are under review and the Regional Waste Management Planning Offices expect to publish the final plan in early 2022.

The regional plan sets out the following strategic targets for waste management in the region:

- A 1% reduction per annum in the quantity of household waste generated per capita over the period of the plan;
- Achieve a recycling rate of 50% of managed municipal waste by 2020; and
- Reduce to 0% the direct disposal of unprocessed residual municipal waste to landfill (from 2016 onwards) in favour of higher value pre-treatment processes and indigenous recovery practices.

Municipal landfill charges in Ireland are based on the weight of waste disposed. In the Leinster Region, charges are approximately €130 - €150 per tonne of waste which includes a €75 per tonne landfill levy introduced under the *Waste Management (Landfill Levy) (Amendment) Regulations 2012*.

The *Fingal Development Plan 2017 – 2023*¹³ came into effect in 2017 and sets out a number of policies and objectives for the Fingal region in line with the objectives of the regional waste management plan, including the following:

- Objective **WM03**: *Implement the provisions of the Eastern Midlands Region Waste Management Plan 2015 -2021 or any subsequent Waste Management Plan applicable within the lifetime of the Development Plan. All prospective developments in the County will be expected to take account of the provisions of the Regional Waste Management Plan and adhere to the requirements of that Plan.*
- Objective **WM05**: *Prevent and minimise the generation of waste in accordance with the Eastern Midlands Region Waste Management Plan 2015 -2021 (or any subsequent plans).*
- Objective **WM07**: *Promote the increased re-use of waste in accordance with the Eastern Midlands Region Waste Management Plan 2015-2021 (or any subsequent plan)."*
- Objective **DMS36**: *Ensure all new residential schemes include appropriate design measures for refuse storage areas, details of which should be clearly shown at pre-planning and planning application stage. Ensure refuse storage areas are not situated immediately adjacent to the front door or ground floor window, unless adequate screened alcoves or other such mitigation measures are provided.*
- Objective **DMS37**: *Ensure the maximum distance between the front door to a communal bin area does not exceed 50 metres.*

The Draft *Fingal Development Plan 2023– 2029*¹³ (2022) and sets out a number of policies and objectives for the Fingal region in line with the objectives of the regional waste management plan, including the following:

- Objective **DMSO31**: *Ensure all new residential schemes include appropriate design measures for refuse storage areas, details of which should be clearly shown at pre-planning and planning application stage. Ensure refuse storage areas are not situated immediately adjacent to the front door or ground floor*

window, unless adequate screened or other such mitigation measures are provided.

- Objective **DMSO32**: Ensure the maximum distance between the front door to a communal bin area does not exceed 50 metres.
- **Objective IUO34 – Waste Management in New Developments** - Require the provision of appropriate, well designed, accessible space to support the storage, separation and collection of as many waste and recycling streams as possible in all new commercial and residential developments within the County.
- **Objective DMSO235 – Provision of Public Bring Banks** - Ensure the provision of public bring banks in all large retail developments, unless there are existing facilities within a 1 km radius. Bring bank facilities will generally be required at appropriate locations in the following development types:
 - In conjunction with significant new commercial developments, or extensions to existing developments.
 - In conjunction with new waste infrastructure facilities, proposals should include bring facilities for the acceptance of non-hazardous and hazardous wastes from members of the public and small businesses.
 - In conjunction with medium and large scale residential and mixed-use developments providing in excess of 10 residential units, proposals should provide recycling and bring bank facilities to serve residents and in some appropriate locations, the wider community.
 - In conjunction with all large retail developments provide space for reverse vending machines to promote the circular economy.
- **Objective DMSO236 – Communal Refuse Storage Provision** - In the case of communal refuse storage provision, the collection point for refuse should be accessible both to the external collector and to the resident and be secured against illegal dumping by non-residents. In the case of individual houses, the applicant shall clearly show within a planning application the proposed location and design of bin storage to serve each dwelling, and having regard to the number of individual bins required to serve each dwelling at the time of the application and any possible future requirements for refuse storage/collection. The following criteria will be considered in the assessment of the design and siting of waste facilities and bring facilities:
 - The location and design of any refuse storage or recycling facility should ensure that it is easily accessible both for residents and/or public and for bin collection, be insect and vermin proofed, will not present an odour problem, and will not significantly detract from the residential amenities of adjacent property or future occupants.
 - Provision for the storage and collection of waste materials shall be in accordance with the guidelines for waste storage facilities in the relevant Regional Waste Management Plan and the design considerations contained in Section 4.8 and 4.9 of the Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities, DHLGH (2020).
 - Refuse storage for houses should be externally located, concealed / covered and adequate to cater for the size and number of bins normally allocated to a household. For terraced houses, the most appropriate area for bins to be stored is to the front of the house, which should be located in well-designed enclosures that do not detract from visual amenity.
 - All applications shall clearly identify the waste storage and collection points and detail the anticipated waste collection schedule having regard to the impact on road users both within the development and the surrounding area.
 - Access to private waste storage in residential schemes should be restricted to residents only.
- **Objective DMSO237 – Segregation and Collection of Waste** - Ensure all new large-scale residential and mixed-use developments include appropriate facilities for source segregation and collection of waste.

- **Objective DMSO239** – *Distance from Front Door to Communal Bin Area - Ensure all new residential schemes include appropriate design measures for refuse storage areas, details of which should be clearly shown at pre-planning and planning application stage. Ensure refuse storage areas are not situated immediately adjacent to the front door or ground floor window, unless adequate screened alcoves or other such mitigation measures are provided.*

2.3 Legislative Requirements

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

- Waste Management Act 1996 as amended.
- Environmental Protection Agency Act 1992 as amended;
- Litter Pollution Act 1997 as amended and
- Planning and Development Act 2000 as amended ¹⁴

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

One of the guiding principles of European waste legislation, which has in turn been incorporated into the *Waste Management Act 1996* as amended and subsequent Irish legislation, is the principle of “*Duty of Care*”. This implies that the waste producer is responsible for waste from the time it is generated through until its legal disposal (including its method of disposal.) As it is not practical in most cases for the waste producer to physically transfer all waste from where it is produced to the final disposal area, waste contractors will be employed to physically transport waste to the final waste disposal site.

It is therefore imperative that the occupant and the facilities management company undertake on-site management of waste in accordance with all legal requirements and employ suitably permitted/licenced contractors to undertake off-site management of their waste in accordance with all legal requirements. This includes the requirement that a waste contractor handle, transport and reuse/recover/recycle/dispose of waste in a manner that ensures that no adverse environmental impacts occur as a result of any of these activities.

A collection permit to transport waste must be held by each waste contractor which is issued by the National Waste Collection Permit Office (NWCPO). Waste receiving facilities must also be appropriately permitted or licensed. Operators of such facilities cannot receive any waste, unless 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* as amended or a waste or IED (Industrial Emissions Directive) licence granted by the EPA. The COR/permit/licence held will specify the type and quantity of waste able to be received, stored, sorted, recycled, recovered and/or disposed of at the specified site.

2.3.1 Fingal County Council Waste Bye-Laws

The *Fingal County Council (Segregation Storage, Presentation and of Household and Commercial Waste) Bye-Laws (2020)* came into effect on the 1st of April 2020. These bye-laws repeal the previous *Fingal County Council Bye-Laws for the Storage, Presentation and Collection of Household Waste (2006)*. They set a number of enforceable requirements on waste holders with regard to storage, separation and presentation of waste within the FCC area. Key requirements under these bye-laws of relevance to the proposed Project include the following:

- Kerbside waste presented for collection shall not be presented for collection earlier than 6.00 pm on the day immediately preceding the designated waste collection day;
- All containers used for the presentation of kerbside waste and any uncollected waste shall be removed from any roadway, footway, footpath or any other public place no later than 9:00am on the day following the designated waste collection day, unless an alternative arrangement has been approved in accordance with bye-law 4;
- Documentation, including receipts, is obtained and retained for a period of no less than one year to provide proof that any waste removed from the premises has been managed in a manner that conforms to these bye-laws, to the Waste Management Act and, where such legislation is applicable to that person, to the European Union (Household Food Waste and Bio-Waste) Regulations 2015; and
- Adequate access and egress onto and from the premises by waste collection vehicles is maintained.

The full text of the bye-laws is available from the FCC website.

2.4 Regional Waste Management Service Providers and Facilities

Various contractors offer waste collection services for the commercial sector in the Dublin region. Details of waste collection permits (granted, pending and withdrawn) for the region are available from the NWCPO.

As outlined in the regional waste management plan, there is a decreasing number of landfills available in the region. Only three municipal solid waste landfills remain operational and all are operated by the private sector. There are a number of other licensed and permitted facilities in operation in the region including waste transfer stations, hazardous waste facilities and integrated waste management facilities. There are two existing thermal treatment facilities, one in Duleek, Co. Meath and a second in Poolbeg in Dublin.

A copy of all CORs and waste permits issued by the Local Authorities are available from the NWCPO website and all waste/IE licenses issued are available from the EPA.

3.0 DESCRIPTION OF THE PROJECT

3.1 Location, Size and Scale of the Development

3.2 Location, Size and Scale of the Development

The proposed development relates to a new Swords Civic and Cultural Centre located on lands in Swords Town Centre.

The site consists of lands at Swords Castle, North Street, Existing Fingal County Council Carpark on Seatown Road and existing public realm along Seaton Road, Main Street, Bridge Street and to the front of Fingal County Hall.

The proposed application includes for the existing Protected Structure of Swords Court House.

This application is seeking permission for a Civic and Cultural Building, public realm works, demolition works and all associated site works at a site located in the middle of Swords town centre, on the junction of North Street, Seatown Road, Main Street and Bridge Street adjacent to Swords Castle, and Fingal County Offices.

The proposed development will comprise of public realm upgrade works and the construction of the proposed Swords Civic and Cultural Building, located on the existing Fingal County Council car park site at Seatown Road and St. Michaels House Centre, ranging in height from 2-4 storeys. The proposed Swords Civic and Cultural Building will include for:

- A 165-no. seated theatre with associated control/ sound rooms & light lobbies
- Dressing rooms and rehearsal spaces
- An art gallery
- Café/theatre bar
- Exhibition spaces
- Workshop and study areas
- Meeting rooms
- Public library
- Offices
- Storage rooms, toilets and other ancillary uses.

The proposed development will consist of minor external works to the southern entrance of the Swords District Court House (Protected Structure).

3.3 Typical Waste Categories

The typical non-hazardous and hazardous wastes that will be generated at the development will include the following:

- Dry Mixed Recyclables (DMR) - includes wastepaper (including newspapers, magazines, brochures, catalogues, leaflets), cardboard and plastic packaging, metal cans, plastic bottles, aluminium cans, tins and Tetra Pak cartons;
- Organic waste – food waste and green waste generated from internal plants/flowers;
- Glass; and
- Mixed Non-Recyclable (MNR)/General Waste.

In addition to the typical waste materials that will be generated at the development on a daily basis, there will be some additional waste types generated in small quantities which will need to be managed separately including:

- Green/garden waste may be generated from internal plants/flowers;
- Batteries (both hazardous and non-hazardous);
- Waste electrical and electronic equipment (WEEE) (both hazardous and non-hazardous);
- Printer cartridges/toners;
- Chemicals (paints, adhesives, resins, detergents, etc.) ;
- Lightbulbs;
- Textiles (rags);
- Waste cooking oil;
- Furniture (and from time to time other bulky wastes); and
- Abandoned Bicycles.

Wastes should be segregated into the above waste types to ensure compliance with waste legislation and guidance while maximising the re-use, recycling and recovery of waste with diversion from landfill wherever possible.

3.4 European Waste Codes

In 1994, the *European Waste Catalogue*¹⁶ and *Hazardous Waste List*¹⁷ were published by the European Commission. In 2002, the EPA published a document titled the *European Waste Catalogue and Hazardous Waste List*¹⁸, which was a condensed version of the original two documents and their subsequent amendments. This document has recently been replaced by the EPA '*Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous*'¹⁹ which became valid from the 1st June 2015. This waste classification system applies across the EU and is the basis for all national and international waste reporting, such as those associated with waste collection permits, COR's, permits and licences and EPA National Waste Database.

Under the classification system, different types of wastes are fully defined by a code. The List of Waste (LoW) code (also referred to as European Waste Code or EWC) for typical waste materials expected to be generated during the operation of the development are provided in Table 3.1 below.

Waste Material	LoW/EWC Code
Paper and Cardboard	20 01 01
Plastics	20 01 39
Metals	20 01 40
Mixed Non-Recyclable Waste	20 03 01
Glass	20 01 02
Biodegradable Kitchen Waste	20 01 08
Oils and Fats	20 01 25
Textiles	20 01 11
Batteries and Accumulators*	20 01 33* - 34
Printer Toner/Cartridges*	20 01 27* - 28
Green Waste	20 02 01
WEEE*	20 01 35*-36
Chemicals (solvents, pesticides, paints & adhesives, detergents, etc.) *	20 01 13*/19*/27*/28/29*30
Fluorescent tubes and other mercury containing waste*	20 01 21*
Bulky Wastes	20 03 07

* Individual waste type may contain hazardous materials.

Table 3.1 Typical Waste Types Generated and LoW Codes

4.0 ESTIMATED WASTE ARISING

A waste generation model (WGM) developed by AWN, has been used to predict waste types, weights and volumes arising from operations within the development. The WGM incorporates building area and use and combines these with other data including Irish and US EPA waste generation rates.

The estimated quantum/volume of waste that will be generated from the development has been determined based on the predicted usage of the development. The waste generation estimates for the are based on waste generation rates per m² floor area for the proposed building uses.

The total estimated waste generation for the development for the main waste types is presented in Table 4.1 and is based on the uses and areas as advised by the project architects (O'Donnell & Tuomey) April 2022

The estimated waste generation for the development for the main waste types is presented in Table 4.1.

Waste type	Waste Volume (m ³ /week)
Organics	0.36
DMR	2.33
Glass	0.83
MNR	1.31
Confidential Paper	0.24
Total	4.82

Table 4.1 Estimated waste generation for the development for the main waste types

The BS5906:2005 Waste Management in Buildings – Code of Practice ²⁰ was considered in the estimations of the waste arising. It has been assumed the centre will be operating over a 7-day period.

5.0 WASTE STORAGE AND COLLECTION

This section provides information on how waste generated within the development will be stored and collected. This has been prepared with due consideration of the development layout as well as best practice standards, local and national waste management requirements, including those of FCC. In particular, consideration has been given to the following documents:

- *BS 5906:2005 Waste Management in Buildings – Code of Practice,*
- *EMR Waste Management Plan 2015 – 2021;*
- Fingal County Council Segregation, Storage and Presentation of household and Commercial Waste Bye-Laws' (2020) and

2 no. (Two) Waste Storage Areas (WSA) have been allocated within the development design. The WSAs have been located at ground level, at an external location, near the staff entrance to the development, adjacent to the ramp on the eastern side of the building. The location of the WSAs can viewed on the drawings submitted with the planning application.

Using the estimated waste generation volumes in Table 4.1, the waste receptacle requirements for MNR, DMR and organic waste and glass have been established for the developments WSAs based on a *weekly* collection. These are presented in Table 5.1.

Area/Use	Bins Required			
	MNR*	DMR**	Organic	Glass
Cultural Centre WSA	1 x 1100L 1 x 240L	2 x 1100L 1 x 240L	2 x 240L	4 x 240L

Note: * = Mixed Non-Recyclables

** = Dry Mixed Recyclables

Table 5.1 Waste storage requirements for the development

The waste receptacle requirements have been established from distribution of the total weekly waste generation estimate into the holding capacity of each receptacle type.

Waste storage receptacles as per Table 5.1 above (or similar appropriate approved containers) will be provided by the facilities management company in the shared commercial WSA.

The types of bins used will vary in size, design and colour dependent on the appointed waste contractor. However, examples of typical receptacles to be provided in the WSAs are shown in Figure 5.1. All waste receptacles used will comply with the SIST

EN 840-1:2020 and SIST EN 840-2:2020 standard for performance requirements of mobile waste containers, where appropriate.



Figure 5.1 Typical waste receptacles of varying size (240L and 1100L)

5.1.1 Library, Theatre and Conference Centre

The library, theatre and conference centre operator will segregate waste into the following main waste streams:

- DMR;
- MNR;
- Organic waste; and
- Glass.

It is recommended that the library, theatre and conference centre have an Area Waste Stations (AWSs). AWS should be located strategically around the library, in the conference centre, at print stations/rooms and at any micro kitchens or tea stations which may be provided within the library or conference centre space. Experience has shown that the maximum travel distance should be no more than 15m from working/activity locations to the AWS. This 'best in class' concept achieves maximum segregation of waste in an office setting.

Typically, an AWS would include a bin for DMR and a bin for MNR. In addition, it is recommended that organic and glass bins should also be provided in the kitchen for the conference centre or micro kitchens or tea stations, where appropriate.

A printer cartridge/toner bin should be provided at the print/copy stations, where appropriate.

It is recommended that all bins/containers should be clearly labelled and colour coded to avoid cross contamination of the different waste streams. Signage should be posted on or above the bins to show which wastes can be put in each bin.

The AWS concept, helps in assisting in maximising recycling rates and minimising associated landfill disposal costs.

Suppliers for the occupants should be requested by the operator to make deliveries in reusable containers, minimize packaging and/or to remove any packaging after delivery where possible, to reduce waste generated by the development.

Cleaning staff will empty the bins in the AWSs, as required, and bring the segregated waste using trolleys/carts/bins via lifts to a central waste storage area located externally on ground level 0.

Other waste materials such as batteries, WEEE and printer toner/cartridges will be generated less frequently. The occupants will be required to temporarily store any of

these additional waste items within their own space pending collection by an authorised license contractor.

It is currently proposed that DMR, MNR, organic waste and glass will be collected on a weekly basis. Other waste types (e.g. WEEE, batteries etc.) will be collected less frequently, as required.

A central WSA for use by the entire cultural centre has been allocated externally on the ground floor. Access to the central WSA will be restricted to employees, facilities management and waste contractors.

5.1.2 Restaurant, Café and Theatre Bar

The operator will need to segregate waste into the following categories:

- DMR;
- MNR;
- Organic waste;
- Glass; and
- Waste Cooking Oil (if generated).

The operator will be required to provide bins within their own space for segregation and temporary storage of waste. It is recommended that all bins/containers should be clearly labelled and colour coded to avoid cross contamination of the different waste streams. It is also recommended that signage should be posted on or above the bins to show which wastes can be put in each bin.

Where raw food is prepared waste receptacles should be located adjacent to the food preparation areas. It is not intended to install a food macerator.

The operator will be required to allocate a suitable space within their unit for storage of waste pending collection by an authorised waste contractor.

Other waste materials such as batteries, printer toner/cartridges and WEEE may be generated infrequently. The operator will be required to identify suitable temporary storage areas for these waste items themselves and arrange for their collection by an authorised waste contractor, as required.

It is currently proposed that DMR, MNR, organic waste and glass will be collected on a weekly basis. Other waste types (e.g. WEEE, batteries etc.) will be collected less frequently, as required.

A central WSA for use by the entire cultural centre has been allocated externally on the ground floor. Access to the central WSA will be restricted to employees, facilities management and waste contractors.

5.2 Waste Collection

There are numerous private contractors that provide waste collection services in the Fingal area. All waste contractors servicing the proposed development must hold a valid waste collection permit for the specific waste types collected. All waste collected must be transported to registered/permitted/licensed facilities only.

The bins of segregated waste/recyclables will be conveyed by the operator staff or facilities management to the designated waste collection area adjacent to the WSA on Seatown Road. From this location the bins will be collected/emptied by the nominated waste contractor(s). The location of the collection area can be viewed on drawings submitted with the planning application and are such that they will not obstruct traffic

or pedestrians as is recommended in the Design Manual for Urban Roads and Streets (2019) ²².

From here the bins will be collected/emptied by the nominated waste contractor(s). Following emptying by the waste contractor, waste receptacles will be promptly removed from the collection area and returned to the respective WSAs.

It is recommended that bin collection times/days are staggered to reduce the number of bins required to be emptied at once and the time the waste vehicle is onsite. This will be determined during the process of appointment of a suitable waste contractor. Times will also be coordinated as to not conflict with the collection and drop off time s for the neighbouring College.

5.3 Additional Waste Materials

In addition to the typical waste materials that are generated on a daily basis, there will be some additional waste types generated from time to time that will need to be managed separately. A non-exhaustive list is presented below.

Green waste

Green waste may be generated from internal plants/flowers. Green waste generated from landscaping of external areas will be removed by external landscape contractors. Green waste generated from gardens internal plants/flowers can be placed in the organic waste bins.

Batteries

Waste batteries must be separately stored and returned to retailer or collected for recycling and recovery of resources and the operator (s) are responsible for arranging this. Waste batteries generated by the operator may be returned to any retail outlet where similar batteries are sold, regardless of whether they were originally purchased in that outlet. The operator will be required to store batteries within the WSA or within their own unit. Facilities management or operator will arrange for return to retailers or collection by an authorised waste contractor, as required.

Waste Electrical and Electronic Equipment (WEEE)

WEEE must be separately stored and returned to manufacturer/retailer or collected for recycling and recovery of resources and the operator (s) are responsible for arranging this. The *WEEE Directive 2002/96/EC* and associated *European Union (WEEE) Regulations 2014* as amended have been enacted to ensure a high level of recycling of electronic and electrical equipment. It is the manufacturers' responsibility to take back the WEEE, regardless of whether a replacement product is purchased or not and retailers are required to take back WEEE where a similar product is purchased. Operator will be required to store WEEE within the WSA or their own unit, facilities management or the operator will arrange for return to retailers or collection by an authorised waste contractor, as required.

Printer Cartridge/Toners

It is recommended that a printer cartridge/toner bin is provided at the print/copy stations in the library, confrence room or other areas where appropriate. operator will be required to store this waste within the WSA or their own unit, facilities management or operator will arrange for return to retailers or collection by an authorised waste contractor, as required.

Chemicals (solvents, paints, adhesives, resins, detergents etc)

Chemicals (such as solvents, paints etc) are largely generated from building maintenance works. Such works are usually completed by external contractors who are responsible for the off-site removal and appropriate recovery/recycling/disposal of any waste materials generated.

Any waste cleaning products or waste packaging from cleaning products generated in the development that is classed as hazardous (if they arise) will be appropriately stored within the operators own space. Facilities management or the operator will arrange collection as required.

Light Bulbs (Fluorescent Tubes, Long Life, LED and Lilament bulbs)

Waste light bulbs may be generated by lighting in the development. It is anticipated that the operator will be responsible for the off-site removal and appropriate recovery/disposal of these wastes. Facilities management or the operator will arrange collection as required.

Textiles

Where possible, waste textiles should be recycled or donated to a charity organisation for reuse.

Waste Cooking Oil

If the operator uses cooking oil, waste cooking oil will need to be stored within the unit on a bunded area or spill pallet and regular collections by a dedicated waste contractor will need to be organised as required.

Furniture (and other bulky wastes)

Furniture and other bulky waste items (such as carpet etc.) may occasionally be generated by the operator. The collection of bulky waste will be arranged as required by the operator. These collections will be subject to approval with facilities management.

COVID-19 Waste

Any waste generated by within the centre generated by individuals who have tested positive for COVID-19 should be managed in accordance with the current COVID-19 HSE Guidelines at the time that that waste arises. At the time this report was prepared, the HSE Guidelines require the following procedure for any waste from a person that tests positive for COVID-19:

- Put all waste (gloves, tissues, wipes, masks) from that person in a bin bag and tie when almost full;
- Put this bin bag into a second bin bag and tie a knot;
- Store this bag safely for 3 days, then put the bag into the non-recyclable waste / general waste wheelie bin for collection / emptying.

Please note that this guidance is likely to be updated by the time the proposed development is open and occupied and the relevant guidance at the time will need to be reviewed.

5.4 Waste Storage Area Design

The WSAs will be designed and fitted-out to meet the requirements of relevant design standards, including:

- Be fitted with a non-slip floor surface;
- Provide ventilation to reduce the potential for generation of odours with a recommended 6-10 air changes per hour for a mechanical system for internal WSAs;
- Provide suitable lighting – a minimum Lux rating of 220 is recommended;
- Be easily accessible for people with limited mobility;
- Be restricted to access by nominated personnel only;
- Be supplied with hot or cold water for disinfection and washing of bins;

- Be fitted with suitable power supply for power washers;
- Have a sloped floor to a central foul drain for bins washing run-off;
- Have appropriate signage placed above and on bins indicating correct use;
- Have access for potential control of vermin, if required; and
- Be fitted with CCTV for monitoring.

The facilities management company will be required to maintain the waste storage areas in good condition as required by the FCC Waste Bye-Laws.

6.0 CONCLUSIONS

In summary, this OWMP presents a waste strategy that addresses all legal requirements, waste policies and best practice guidelines and demonstrates that the required storage areas have been incorporated into the design of the development.

Implementation of this OWMP will ensure a high level of recycling, reuse and recovery at the development. All recyclable materials will be segregated at source to reduce waste contractor costs and ensure maximum diversion of materials from landfill, thus achieving the targets set out in the *EMR Waste Management Plan 2015 – 2021*.

Adherence to this plan will also ensure that waste management at the development is carried out in accordance with the requirements of the FCC *Development Plan and Waste Bye-Laws*.

The waste strategy presented in this document will provide sufficient storage capacity for the estimated quantity of segregated waste. The designated area for waste storage will provide sufficient room for the required receptacles in accordance with the details of this strategy.

7.0 REFERENCES

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