169-177 Merrion Road Student Accommodation Operational Waste Management Plan

19.08.2024

24042-X-XXX-RP-TNT-CE-0005

TENT ENGINEERING

Site Address:

Gowan Motors Compound Site,
169-177 Merrion Road,
Dublin 4

Client:

1 Merrion Compound Land Limited

TENT ENGINEERING

Revision and Review

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PURPOSE

- ☐ P1 Information
- ☐ P2 Coordination
- ☐ P3 Planning
- ☐ P4 Building Control
- ☐ P5 Pre-tender
- ☐ P6 Tender
- ☐ P7 Construction

ACCEPTANCE (BY OTHERS)

- ☐ S Issued
- ☐ A Accepted
- ☐ B Accepted subject to comments
- ☐ C Rejected
- ☐ D Acceptance not required

Accepted by

REVISION(S)

Rev.	Description	Date
00	DRAFT	23.05.2024
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Contents

1 Introduction

The proposed development is sited at the Gowan Motors Compound Site, 169-177 Merrion Road, Dublin. This will include the construction of 200 student rooms within a multi-story development, including a basement.

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 current legal and industry standards including, the Waste Management Act 1996 as amended and associated Regulations 1, Environmental Protection Agency Act 1992 as amended 2, Litter Pollution Act 1997 as amended 3, the 'Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021' 4, The Dublin City Council Waste Management (Segregation, Storage and Presentation of Household and Commercial) Bye-Laws (2018) and the Guidance Notes for Waste Management in Residential and Commercial Developments (2020) 6. In particular, this OWMP aims to provide a robust strategy for storing, 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 proposed 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 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' 7 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 2002 8. 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' 9. 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' 10. 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' 11 (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) 12 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' 13 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
- **Reuse -** 54,800 tonnes of second hand products we estimated by the EPA to have been reused in Ireland in 2021. The average annual reuse rate per person in Ireland is 10.6kg per person.

2.2 Regional Level

The development is located in the Local Authority administrative area of Dublin City Council (DCC). The EMR Waste Management Plan 2015-2021 has been superseded as of March 2024 by the NWMPCE 2024 - 2030.

The NWMPCE does not dissolve the three regional waste areas. The NWCPCE sets the ambition of the plan to have a 0% total waste growth per person over the life of the Plan with an emphasis on non-household wastes including waste from commercial activities and the construction and demolition sector.

This Plan seeks to influence sustainable consumption and prevent the generation of waste, improve the capture of materials to optimise circularity and enable compliance with policy and legislation.

The national plan sets out the following strategic targets for waste management in the country that are relevant to the development:

Proposed National Targets

1A. (Residual Municipal Waste) 6% Reduction in Residual Municipal Waste per person by 2030

2A. (Contamination of Materials) 90% of Material in Compliance in the Dry Recycling Bin

2B. (Material Compliance Residual) 10% per annum increase in Material Compliance in the residual bin. (90% by the end of 2030)

3A. (Reuse of Materials) 20kg Per person/year - Reuse of materials like cloths or furniture to prevent waste.

Municipal landfill charges in Ireland are based on the weight of waste disposed. In the Leinster Region, charges are approximately €140-160 per tonne of waste, which includes a €85 per tonne landfill levy introduced under the Waste Management (Landfill Levy) (Amendment) Regulations 2015.

The Dublin City Development Plan 2022-2028 14 sets out a number of policies and objectives for Dublin City in line with the objectives of the National climate action policy and emphasises the need to take action to address climate action across all sectors of society and the economy. In the waste sector, policy on climate action is focused on a shift towards a 'circular economy' encompassing three core principles: designing out waste and pollution; keeping products and material in use; and regenerating natural systems. Further policies and objectives can be found within the development plan.

Policies:

CAB F: minimising the generation of site and construction waste and maximising reuse or recycling.

CA23: The Circular economy: To support the shift towards the circular economy approach as set out in 'a Waste Action Plan for a Circular Economy 2020 to 2025, Ireland's National Waste Policy, or as updated.

CA24: To have regard to existing Best Practice Guidance on Waste Management Plans for Construction and Demolition Projects as well as any future updates to these guidelines in order to ensure the consistent application of planning requirements.

S127: Sustainable Waste Management:
To support the principles of the circular economy, good waste management and the implementation of best practice in relation to waste management in order for Dublin City and the Region to become self-sufficient in terms of resource and waste management and to provide a waste management infrastructure that supports this objective. S128: To prevent and minimise waste generation and disposal, and to prioritise prevention, recycling, preparation for reuse and recovery in order to develop Dublin as a circular city and safeguard against environmental pollution. S129: Segregated Storage and Collection of Waste Streams:
To require new commercial and residential developments, to include adequate and easily accessible storage space that supports the separate collection of as many waste and recycling streams as possible, but at a minimum general domestic waste, dry recyclables and food waste as appropriate.

S130: To require that the storage and collection of mixed dry recyclables, organic and residual waste materials within proposed apartment schemes have regard to the Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities 2018 (or and any future updated versions of these guidelines produced during the lifetime of this plan).

Objectives:

SI014 Local Recycling Infrastructure: To provide for a citywide network of municipal civic amenity facilities/ multi-material public recycling and reuse facilities in accessible locations throughout the city in line with the objectives of the circular economy and 15 minute city.

SI016 Eastern-Midlands Region Waste Management Plan: To support the implementation of the Easter-Midlands Regional Waste Management Plan 2015-2021 and any subsequent plans in order to facilitate the transition from a waste management economy towards a circular economy.

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 17.

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 residents and the proposed facilities management company undertake on-site management of waste in accordance with all legal requirements and employ suitably permitted/licence 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 IE (Industrial Emissions) 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 Dublin City Council Waste Bye-Laws

The DCC "Dublin City Council (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws (2018)" were bought into force in May 2019. These bye-laws repeal the previous Bye-Laws for the Storage, Presentation and Collection of Household and Commercial Waste. The bye-laws set a number of enforceable requirements on waste holders with regard to storage, separation and presentation of waste within the DCC administrative area. Key requirements under these bye-laws of relevance to the operational phase of the development include the following:

Kerbside waste presented for collection shall not be presented for collection earlier than 5.00 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 10:00 am on the day following the designated waste collection day, unless an alternative arrangement has been approved in accordance with bye-law 2.3;

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 DCC website.

2.4 Local Authority Guidelines

DCC's Waste Management Division have issued Guidance Notes for Waste Management in Residential and Commercial Developments (2020) which provide good practice guidance for the storage and collection of waste for new build high density developments. The guidelines include a form which is designed to be completed by (or on behalf of) the applicant for new high-density developments. The objective of the guidelines is to allow developers to demonstrate to local planning and waste management authorities that they have considered how the design and the operation of waste management services will enable the occupiers and managing agents to effectively manage their wastes arisings.

The ultimate goal of the guidelines is that the implemented waste strategy will achieve a 70% reuse and recovery target in accordance with the European Commission's proposal to introduce 70% reuse and recycling targets for municipal waste by 2030 and while also providing sufficient flexibility to support future targets and legislative requirements.

This OWMP has been prepared to demonstrate exactly that and aims to do so in a comprehensive manner.

The guidelines and form are available on the DCC website.

2.5 Regional Waste Management Service Providers and Facilities

Various contractors offer waste collection services in the DCC 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 are all 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 facility in Poolbeg in Dublin.

The Eden Park Recycling Centre, located c. 500 west of the development site, can be used by residents of the proposed development for other household waste streams. This centre can accept Aerosols Aluminium Cans, Batteries - e.g. AA, AAA, Cardboard, Glass, Light Bulbs & Fluorescent Tubes, Paper - Newspapers, Junkmail, Magazines, Books, Plastic Bottles, Plastic Packaging - Bags, Yoghurt Pots, Bubble Wrap, Fruit & Veg Containers, Polystyrene (White), Printer Cartridges & Toners, Steel Cans - Food Tins, Biscuit Tins, Tetra Pak Containers - Milk, Juice, Soup Cartons, Textiles - Blankets,, Shoes, Clothes, Curtains, Bed Linen

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 Description of the Project

3.1 Location, Size and Scale of the Development

The proposed development is sited at the Gowan Motors Compound Site, 169-177 Merrion Road, Dublin, Ireland, and includes two blocks for 200 new student rooms. The site is currently acting as a construction compound The site area is approximated 2823m^2.

3.2 Typical Waste Categories

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

Dry Mixed Recyclables (DMR) - includes waste-paper (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 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);
- Light bulbs;
- Textiles (rags);
- Waste cooking oil (if any generated by the residents);
- 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.

3.3 European Waste Codes

In 1994, the European Waste Catalogue 18 and Hazardous Waste List 19 were published by the European Commission. In 2002, the EPA published a document titled the European Waste Catalogue and Hazardous Waste List 20, 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' 21 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, CORs, 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 proposed development are provided in Table 4.1 below.

4 Estimated waste arisings

The estimated quantum/volume of waste that will be generated from the new student rooms has been determined based on the predicted occupancy of the units.

The DCC Guidance Notes for Waste Management in Residential and Commercial Developments recommends calculating residential waste using Section 4.7 of BS5906:2005 Waste Management in Buildings – Code of Practice 22. The predicted total waste generated from the residential units based on the Code of Practice is c.14030l per week for the student units.

Table 4.1 Typical Waste Types Generated and LoW Codes

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
Bulky Wastes	20 03 07

* Individual waste type may contain hazardous materials

5 Waste storage and collection

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

- BS 5906:2005 Waste Management in Buildings – Code of Practice;
- DCC Guidance Notes for Waste Management in Residential and Commercial Developments;
- DCC, Dublin City Council Segregation, Storage and Presentation of Household and Commercial Waste) Bye-laws (2018).
- DoHLGH, Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities (2020) 23.

One (1 no.) Waste Storage Areas (WSA) have been allocated in the design of this development. One WSAs is for residential use and is located at ground floor level. The Bin lorry can drive directly to this facility. Refer to the transport report accompanying this application for full details of this vehicle movement. The locations of this WSAs can be viewed on the drawings submitted with the planning application under separate cover.

Bins from the proposed development will be brought to a collection point adjacent to the building. Bins will be brought to the collection points by the waste contractor or facilities management prior to collection. Bins will be returned to the WSA immediately following collection. The collection area will be such that it will not obstruct traffic or pedestrians (allowing a foot-way path of at least 1.8m, the space needed for two wheelchairs to pass each other) as is recommended in the Design Manual for Urban Roads and Streets (2019) 24.

Facilities management will supply all residents with a document that shall clearly state the methods of source waste segregation, storage, reuse and recycling initiatives that shall apply within the development.

Waste Storage Requirements

Using the estimated waste generation volumes in section 4 the waste receptacle requirements for MNR, DMR, organic waste and glass have been established for the two WSA. These are presented in Table 5.1. The WSA has been appropriately sized to accommodate the weekly waste requirements for waste receptacles.

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 below (or similar appropriate approved containers) will be provided by the facility management company in the shared WSA.

The types of bins used will vary in size, design and colour dependent on the appointed waste contractor. All waste receptacles used will comply with the IS EN 840 2012 standard for performance requirements of mobile waste containers, where appropriate. Signage should be posted above or on the bins to show exactly which waste can be put in each.

Table 5.1 Waste storage requirements for the proposed development

Area/Use	Bins Required			
	MNR1*	DMR2**	Organic	Glass
Residential WSAs (Shared)	3 x 1100L	4 x 1100 L	2 x 360L	2 x 240L

Note: * = Mixed Non-Recyclables

** = Dry Mixed Recyclables

5.1 Waste Storage – Residential Units

Residents will be required to segregate their waste into the following main waste categories within their own units:

- Organic waste;
- DMR (Dry Mixed Recycling);
- MNR (Mixed Non-Recyclables)

Space will be provided in all residential units to accommodate 3 no. bin types to facilitate waste segregation at source.

Residents will be required to take their segregated waste materials to their designated WSA and deposit their segregated waste into the appropriate bins. The location of the WSAs are illustrated in the drawings submitted with the planning application under separate cover.

Each bin / container in the WSAs will be clearly labelled and colour coded to avoid cross contamination of the different waste streams. Signage will be posted above or on the bins to show exactly which waste types can be placed in each bin.

Access to the shared residential WSAs will be restricted to authorised residents, facilities management and waste contractors by means of a key or electronic fob access.

Other waste materials such as textiles, batteries, printer toner/cartridges and WEEE may be generated infrequently by the residents. Residents will be required to identify suitable temporary storage areas for these waste items within their own units and dispose of them appropriately. Further details on additional waste types can be found in Section 5.3.

Floor plan showing shard bin stores can be found on Drawing No. 05001 PROPOSED SITE LAYOUT GROUND FLOOR PLAN from the architect (MDO)

5.2 Waste Collection

There are numerous private contractors that provide waste collection services in the DCC 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.

Bins from the proposed development will be brought to a collection point adjacent to the internal road. Bins will be brought to this collection point by the waste contractor or facilities management prior to collection.

Bins will be returned to the WSAs immediately following collection. The staging area is such that it will not obstruct traffic or pedestrians (allowing a footway path of at least 1.8m, the space needed for two wheelchairs to pass each other) as is recommended in the Design Manual for Urban Roads and Streets (2019) 24. Refer to Appendix A for demonstration that bins will not obstruct traffic or predestrians.

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 on-site. This will be determined during the process of appointment of a waste contractor.

Fig 5.1 - Staging area for bin collection

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/garden waste

Green/garden waste may be generated from internal plants/flowers. Green waste generated from internal plants/flowers can be placed in the organic waste bins in the WSAs.

Batteries

A take-back service for waste batteries and accumulators (e.g. rechargeable batteries) is in place in order to comply with the S.I. No. 283/2014 - European Union (Batteries and Accumulators) Regulations 2014, as amended. In accordance with these regulations, consumers are able to bring their waste batteries to their local civic amenity / recycling centre or can return them free of charge to retailers which supply the equivalent type of battery, regardless of whether or not the batteries were purchased at the retail outlet and regardless of whether or not the person depositing the waste battery purchases any product or products from the retail outlet.

Waste Electrical and Electronic Equipment (WEEE)

The WEEE Directive (Directive 2002/96/EC) and associated Waste Management (WEEE) Regulations have been enacted to ensure a high level of recycling of electronic and electrical equipment. In accordance with the regulations, consumers can bring their waste electrical and electronic equipment to their local civic amenity / recycling centre. In addition, consumers can bring back WEEE within 15 days to retailers when they purchase new equipment on a like for like basis. Retailers are also obliged to collect WEEE within 15 days of delivery of a new item, provided the item is disconnected from all mains, does not pose a health and safety risk and is readily available for collection.

Printer Cartridge/Toners

Waste printer cartridge / toners generated by residents can usually be returned to the supplier free of charge or can be brought to a civic amenity / recycling centre.

Chemicals (solvents, pesticides, paints, adhesives, resins, detergents, etc) Chemicals (such as solvents, paints, adhesives, resins, detergents, 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 that are classed as hazardous (if they arise) generated by the residents should be brought to a civic amenity / recycling centre.

Light Bulbs

Light bulbs generated by residents should be taken to the nearest civic amenity / recycling centre for appropriate storage and recovery / disposal.

Textiles

Where possible, waste textiles should be recycled or donated to a charity organisation for reuse. The residents will be responsible for disposing of waste textiles appropriately.

Waste Cooking Oil

If the residents generate waste cooking oil, this can be brought to a civic amenity / recycling centre or placed in the organic bin.

Furniture (and other bulky wastes)

Furniture and other bulky waste items (such as carpet, etc.) may occasionally be generated by the residents. If residents wish to dispose of furniture, this can be brought a civic amenity / recycling centre.

Abandoned Bicycles

Bicycle parking areas are planned for the development. As happens in other developments, residents sometimes abandon faulty or unused bicycles and it can be difficult to determine their ownership. Abandoned bicycles should be donated to charity if they arise.

5.4 Waste Storage Area Design

The shared 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; Provide suitable lighting – a minimum Lux rating of 220 is recommended; Appropriate sensor controlled lighting;
- 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 graphical and written signage placed above and on bins indicating correct use;
- Have access for potential control of vermin, if required;
- Robust design of doors to bin area incorporating steel sheet covering where appropriate; and
- Be fitted with CCTV for monitoring.

The facility management company will be required to maintain bins and storage areas in good condition as required by the DCC Waste Bye-Laws.

5.5 Facility Management Responsibilities

It shall be the responsibility of the Facilities Management Company to ensure that all domestic waste generated by apartment residents is managed to ensure correct storage prior to collection by an appropriately permitted waste management company.

Facilities Management should provide the following items in accordance with the DCC the Guidance Notes for Waste Management in Residential and Commercial Developments:

- Provision of a Waste Management Plan document, prepared by the Facilities Management Company to all residential units, which shall clearly state the methods of source waste segregation, storage, reuse and recycling initiatives that shall apply to the management of the development;
- Provision and maintenance of appropriate graphical signage to inform residents of their obligation to reduce waste, segregate waste and in the correct bin;
- Preparation of an annual waste management report for all residential units;
- Designation of access routes to common waste storage areas to ensure safe access from the apartment units by mobility impaired persons;
- Provision of an appropriately qualified and experienced staff member, who will be responsible for all aspects of waste management at the development;
- Daily inspection of waste storage areas and signing of a daily check list, which shall be displayed within the area; and
- Maintenance of a weekly register, detailing the quantities and breakdown of wastes collected from the development and provision of supporting documentation by the waste collector to allow tracking of waste recycling rates.

6 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 NWMPCE 2024 - 2030 Adherence to this plan will also ensure that waste management at the development is carried out in accordance with the requirements outlined in the DCC Guidance Notes for Waste Management in Residential and Commercial Developments and the DCC 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 References

1. Waste Management Act 1996 as amended.

2. Environmental Protection Agency Act 1992 (Act No. 7 of 1992) as amended;

3. Litter Pollution Act 1997 (Act No. 12 of 1997) as amended;

4. Eastern-Midlands Waste Region, Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021 (2015)

5. Department of Environment and Local Government (DoELG) Waste Management – Changing Our Ways, A Policy Statement (1998)

6. Departmnt of Environment, Heritage and Local Government (DoEHLG) Preventing and Recycling Waste - Delivering Change (2002)

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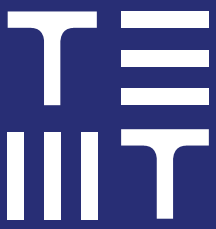
8 Appendix A - Refuse Truck Tracking

Refer to 24042-X-L00-DR-TNT-TP-4004: REFUSE TRUCK TRACKING

TENT ENGINEERING



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