



**Guidance Notes** 

for

Operational Waste Management Planning for

Residential and Commercial Developments

November 2023

Document History	Date	Comment
Version 1	August 2022	Updates from previous version.
Version 2	May 2023	Minor edits and revisions & clarifications
Version 3	November 2023	Revised to take account of Government Guidance

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## 1. Introduction

The objective of this advice is to provide good practice guidance for the storage and collection of waste for new build high density developments to allow developers to demonstrate to local planning and waste management authorities that they have considered how the design and operation of waste management services will enable the occupiers and managing agents of new developments to manage waste arising through the lifetime of the development.

It is recommended that this guidance be followed for all new developments.

The document is designed to assist developers in considering measures required to maximise the reuse, recycling, and recovery of waste in the operational lifetime of the development and give specific reference to best practice and associated legislation including minimising the carbon footprint of occupiers and services provided and avoidance of issues that arise when waste provision is poorly considered.

The final outcomes should have regard to the European Commission's proposal to introduce 70% re-use and recycling targets for municipal waste by 2030 and provide for waste management solutions that have sufficient flexibility to support future targets and legislative requirements.

It is recommended that engagement with the local authority team responsible for waste management is conducted at the earliest opportunity and ideally prior to submitting a pre-planning application.

It is also recommended this guidance be read in conjunction with the following documents, or any revision thereof:

- Dún Laoghaire-Rathdown County Development Plan 2022-2028
- Dún Laoghaire-Rathdown County Council (Segregation, Storage and Presentation of Household and Commercial Waste) Byelaws, 2019
- European Union (Waste Directive) Regulations 2020, S.I. No. 323 of 2020
- The Eastern Midlands Region Waste Management plan 2015-2021
- National Waste Management Plan for a Circular Economy (currently in Draft) Final version to me used when published)
- Sustainable Urban Housing: Design Standards for New Apartments,
  Guidelines for Planning Authorities issued under Section 28 of the Planning and Development Act, 2000 (as amended), December 2020

Further information on management of waste as well as up to date guidance is also available on <a href="https://www.mywaste.ie/">https://www.mywaste.ie/</a>

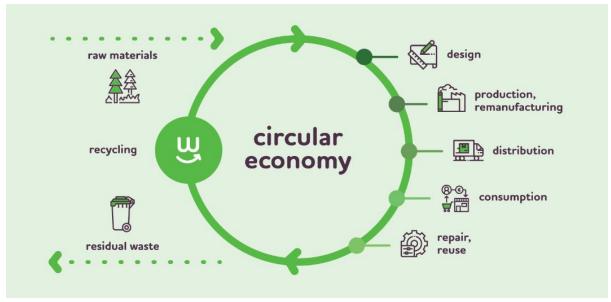


Figure 1. The Circular Economy (Source <a href="https://www.mywaste.ie/the-circular-economy/">https://www.mywaste.ie/the-circular-economy/</a>)

Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities issued under Section 28 of the Planning and Development Act, 2000 (as amended), published December 2020 contains the following guidance;

#### Refuse Storage

4.8 Provision shall be made for the storage and collection of waste materials in apartment schemes. Refuse facilities shall be accessible to each apartment stair/lift core and designed with regard to the projected level of waste generation and types and quantities of receptacles required. Within apartments, there should be adequate provision for the temporary storage of segregated materials prior to deposition in communal waste storage and in-sink macerators are discouraged as they place a burden on drainage systems.

4.9 The following general design considerations should be taken into account in the provision of refuse storage facilities:

- Sufficient communal storage area to satisfy the three-bin system for the collection of mixed dry recyclables, organic waste and residual waste;
- In larger apartment schemes, consideration should also be given to the provision of separate collection facilities for other recyclables such as glass and plastics;
- Waste storage areas must be adequately ventilated so as to minimise odours and potential nuisance from vermin/flies and taking account the avoidance of nuisance for habitable rooms nearby;
- Provision in the layout for sufficient access for waste collectors, proximity of, or ease of access to, waste storage areas from individual apartments, including access by disabled people;
- Waste storage areas should not present any safety risks to users and should be well-lit;
- Waste storage areas should not be on the public street, and should not be visible to or accessible by the general public. Appropriate visual screening should be provided, particularly in the vicinity of apartment buildings;
- Waste storage areas in basement car parks should be avoided where possible, but where provided, must ensure adequate manoeuvring space for collection vehicles;
- The capacity for washing down waste storage areas, with wastewater discharging to the sewer.

## 2. Stages of Waste Management

The stages of waste management that require to be separately considered in the design of waste management systems.

#### **Stage 1 Occupier Separation**

How the occupier of the development will segregate and manage materials in their own living or working space. For example, provision of apartment internal 3-bin built in system.

#### **Stage 2 Occupier Deposit and Storage**

How the segregated materials will be removed from occupier units to any communal waste storage areas.

#### Stage 3 Collection / Bulking method

How the materials will be bulked & collected and by whom. Where they will be stored prior to on-site treatment or removal off site for reuse, recycling, recovery, or disposal.

#### Stage 4 Removal / Onsite treatment method

How the materials will be removed from (or treated on site). For Example a road swept path analysis together with a drawing showing the waste staging & collection areas, as well as bin paths to staging and or collection points.

#### **Stage 5 End Destination**

What the end destination of the materials will be, including targets for reuse, recycling, recovery, and disposal.

## 3. Types of Waste

The typical hazardous and non-hazardous wastes that may be generated and require consideration for large residential and commercial developments will include the following:

Waste types generated on a daily basis.

- Paper including newspapers, magazines, brochures, confidential paper.
- Cardboard and Plastic Packaging
- Metal Cans
- Plastic Bottles
- Aluminium Cans
- Tetrapak Cartons
- Glass
- Organic Waste, including segregated food waste and house plants.
- Textiles
- General Non-Recyclable Waste

Additional waste types generated occasionally or in smaller quantities include:

- Furniture, Carpets, and other bulky items
- Batteries
- Printer Toners and Cartridges
- Waste Electrical and Electronic Equipment
- Chemicals including paints, detergents, pesticides, etc.
- Waste Cooking Oil and Engine Oil
- Waste from Grease Separators
- Healthcare Risk Waste
- Construction and Demolition Waste
- Landscaping Waste

## 4. Design Considerations

#### **Applicable Standards for Residential Developments & Apartments**

The requirements set out in the Dún Laoghaire-Rathdown County Council (Segregation, Storage and Presentation of Household and Commercial Waste) Bye-Laws, 2019 must be adhered to and, in particular, the requirement in the bye-laws to segregate waste into separate fractions to facilitate the collection of dry recyclables, organic kitchen/garden waste and residual waste.

The bye laws were developed in accordance in line with:

- Waste Management (Food Waste) Amendment Regulations 2015 (S.I. 190 of 2015)
- European Union (Household Food Waste and Biowaste) Regulations 2015 (S.I. 191 of 2015),
- Waste Management (Food Waste) Regulations 2009 (S.I. 508/2009) and the
- Eastern-Midlands Regional Waste Management Plan 2015 2021 or any revisions thereof.

#### **Byelaws**

The Dún Laoghaire-Rathdown County Council (Segregation, Storage and Presentation of Household and Commercial Waste) Bye-Laws, 2019 currently require the following.

9. Provisions affecting Multi-user Buildings, Apartment Blocks or similar:

A management company, or another person if there is no such company, who exercises control and supervision of residential and/or commercial activities in multi-unit developments, mixed-use developments, flats or apartment blocks, combined living/working spaces or other similar complexes shall ensure that:

- (a) separate receptacles of adequate size and number are provided for the proper segregation, storage and collection of recyclable kerbside waste, residual kerbside waste and food waste,
- (b) the receptacles referred to in paragraph (a) are located both within any individual apartment and at the place where waste is stored prior to its collection,
- (c) any place where waste is to be stored prior to collection is secure, accessible at all times by tenants and other occupiers and is not accessible by any other person other than an authorised waste collector,
- (d) written information is provided to each tenant or other occupier about the arrangements for waste separation, segregation, storage, and presentation prior to collection,
- (e) an authorised waste collector is engaged to service the receptacles referred to in this section of these bye-laws, with

documentary evidence, such as receipts, statements, or other proof of payment, demonstrating the existence of this engagement being retained for a period of no less than two years. Such evidence shall be presented to an authorised person within a time specified in a written request from either that person or from another authorised person employed by Dún Laoghaire Rathdown County Council,

- (f) receptacles for kerbside waste are presented for collection on the designated waste collection day,
- (g) adequate access and egress onto and from the premises by waste collection vehicles is maintained.

Fr a complete copy of the bye laws please refer to <a href="https://www.dlrcoco.ie/sites/default/files/atoms/files/dlr-waste-presentation-bye-laws-2019.pdf">https://www.dlrcoco.ie/sites/default/files/atoms/files/dlr-waste-presentation-bye-laws-2019.pdf</a>

## 5. General Requirements

Waste storage issues should be considered at the initial design stage, taking full account of this guidance note, to ensure access for all (including people with disabilities) in a brightly lit, safe and well-signed area, spacious enough for easy manoeuvrability, good ventilation and ready access if required for the control of potential vermin.

Where storage is provided in a basement area, sufficient access and egress must be provided to enable receptacles to be moved easily from the storage area to an appropriate bin staging point within the curtilage of the development in accordance with Dún Laoghaire-Rathdown County Council (Segregation, Storage And Presentation Of Household And Commercial Waste) Bye-Laws, 2019, Section 9, or any revision thereof.

Shared bin storage areas should be designed so that each bin within the storage area is accessible to occupants/employees of the development (including people with disabilities) and these bins must be able to be moved easily from the storage area to an appropriate collection point. Waste storage areas should not present any safety risks to users and should be well lit.

Where individual bin storage is proposed, each housing unit shall have adequate screened and secure storage for at least a 3-bin system, with a clearly identified path for leaving out bins for collection that does not pass through any part of the housing unit.

The following are also requirements:

#### **A Common Waste Storage Areas Design**

- 1. A defined pedestrian route from apartment areas to the nearest waste storage area
- 2. Waste storage areas should not present any safety risks to users.
- 3. A non-slip surface within the waste storage area
- 4. Adequate ventilation to avoid the creation of stagnant air or foul odours.
- 5. Appropriate sensor-controlled lighting.
- 6. Suitable wastewater drainage points and water supply points should be installed in the bin storage area for cleaning and disinfecting.
- 7. Provision of appropriate graphical signage to inform residents of their obligation to reduce waste, segregate waste and in the correct bin.
- 8. Measures to control and monitor access to waste storage areas.
- 9. Identification of space required for separate storage of waste segregated into general mixed waste, dry recyclable waste, organic/food waste, glass and in the case of larger developments, WEEE and hazardous waste, as appropriate, based on weekly collection of the main waste streams.

- 10.Sizing of waste storage area to provide for required waste storage containers with reference to BS 5906:2005. Waste Management in Buildings Code of Practice, (Table 1 typical weekly waste arisings and subsequent storage requirements) taking full account of waste collection frequency provision in the local area. Where other alternatives are proposed the basis of the sizing and proposed operational system should be clearly identified, including measures to promote waste segregation.
- 11.Sufficient space for the use and servicing of containers without moving other containers should be provided.
- 12.Provision of separate waste storage for general mixed municipal waste, recyclable waste, organic waste, and glass waste. The different bin types will be clearly colour coded and labelled (clearly visible laminated graphical signage) in Waste Storage Area.
- 13. Appropriate secure controlled access to the bin storage area.

#### **B Requirements within Residential Units**

- 1. Provision of sufficient space for the storage of general domestic waste, dry recyclable waste and organic/food waste.
- 2. Each apartment shall be provided with built in individual waste storage bins which shall be sized to allow their easy manual handling to be brought to the common waste storage area.

#### **C Initial Waste Management**

- 1. Provision of a full waste collection service from the date of first occupation of units in the development.
- 2. Provision of a guidance document to all occupants from the date of first occupation of units in the development. Each dwelling will be provided with a chart explaining exactly how waste materials should be segregated/
- 3. Duplex and apartment residents will then be required to bring the suitable waste streams from their units to the labelled bin storage areas.

#### **D Waste Collection System**

- 1. Identification of a suitable location within the curtilage of the development where the waste bins can be left out for collection.
- 2. Access for waste collection trucks, including design of turning circles and headroom requirements clearly set out in a swept path analysis.
- 3. Avoidance of traffic hazard
- 4. Avoidance of environmental pollution, including visual pollution
- 5. Avoidance of environmental nuisance and litter
- 6. Door access to bin area that allows for 1100 litre bins plus 20% over width.
- 7. Robust design of doors to bin area incorporating steel sheet covering where appropriate

## **E** Requirements for Selection of Separate Staging Area for Bin Collection where required

- 1. Screened to avoid creation of litter pollution resulting from bin overturning during windy weather.
- 2. Avoidance of interference with pedestrian movements on public footpaths
- 3. Located so as to avoid creation of visual, noise or odour nuisance affecting public areas outside the curtilage of the development.
- 4. Sufficient space for trucks to pull in to avoid interference with traffic flow on public roads during bin collection, when located adjacent to a public road.
- 5. Subject to a safety analysis to avoid creation of safety issues due to delayed bin collection or other forceable contingencies.

# 6. Standards for Commercial & Industrial Developments

The requirements set out in the Dún-Laoghaire Rathdown County Council Segregation, Storage & Presentation of Household and Commercial Waste Bye-Laws 2019 or any revision thereof must be adhered to and, in particular, the requirement to segregate waste into separate fractions to facilitate the collection of dry recyclables, organic kitchen/garden waste and residual waste in line with Waste Management (Food Waste) Regulations 2009 (S.I. 508/2009) and the Waste Management (Food Waste) Amendment Regulations S.I. 190 of 2015, and the Eastern-Midlands Region Waste Management Plan 2015 – 2021.

Early consideration should be given to HGV routing, measures to avoid creation of possible environmental nuisance and appropriate security measures in the design of operational waste management for all commercial developments.

It is recommended that engagement with the local authority team responsible for waste management is conducted at the earliest opportunity in relation to the provision of a separate bring centre to cater for glass, aluminium and steel cans in larger retail developments and local community facilities.

Specific consideration should be given to secure storage of clinical waste and the development of a clinical waste management plan in the design of all healthcare facilities.

The following are also requirements:

#### A. Common Waste Storage Areas design

- 1. Provision of waste storage areas separate from any residential waste storage areas.
- 2. A defined pedestrian route from areas at which waste is generated to the nearest waste storage area.
- 3. Waste storage areas should not present any safety risks to users.
- 4. A non-slip surface within the waste storage area
- 5. Adequate ventilation to avoid the creation of stagnant air or foul odours.
- 6. Appropriate sensor-controlled lighting.
- 7. Suitable wastewater drainage points and water supply points should be installed in the bin storage area for cleaning and disinfecting.
- 8. Measures to control access to waste storage areas.
- 9. Conservative sizing of waste storage containers, to avoid overfilling of containers.
- 10. Provision of appropriate graphical signage.
- 11. Separate covered storage for packaging waste and associated compactors.

12. Separation of commercial and residential storage areas in mixed residential/commercial developments where possible.

#### **B.** Waste Collection system

- 1. Access for waste collection trucks, including design of turning circles and headroom requirements.
- 2. Avoidance of traffic hazard.
- 3. Avoidance of environmental pollution, including visual pollution
- 4. Avoidance of environmental nuisance and litter.
- 5. Door access to bin area that allows for 1100litre bins plus 20% over width where required.
- 6. Robust design of doors to bin area incorporating steel sheet covering where appropriate.