

5.2 Waste Storage – Retail and F&B Units

The retail and F&B tenants will be required to segregate waste within their own unit into the following main waste types:

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

Tenants will be required to take their segregated waste materials to their designated commercial WSA and dispose of their segregated waste into the appropriate bins. Locations of all WSAs can found on the plans submitted with the application.

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

If any kitchens are allocated in unit areas, this will contribute a significant portion of the volume of waste generated on a daily basis, and as such it is important that adequate provision is made for the storage and transfer of waste from these areas to the WSA.

If kitchens are required it is anticipated that waste will be generated in kitchens throughout the day, primarily at the following locations:

- Food Storage Areas (i.e. cold stores, dry store, freezer stores and stores for decanting of deliveries);
- Meat Preparation Area;
- Vegetable Preparation Area;
- Cooking Area;
- Dish-wash and Glass-wash Area; and
- Bar Area.

Small bins will be placed adjacent to each of these areas for temporary storage of waste generated during the day. Waste will then be transferred from each of these areas to the appropriate waste store within their unit.

A trolley/tug or suitable vehicle may be required to convey the bins to/from the WSAs.

All bins/containers in the tenants areas as well as 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 wastes can be put in each.

Other waste materials such as textiles, batteries, lightbulbs, printer toner/cartridges, cooking oil and WEEE may be generated infrequently by the tenants. Tenants 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 5.6

5.3 Waste Storage – Hotels

The operator(s) will be required to segregate their waste within the development into the following main waste types:

- DMR;

- MNR;
- Organic waste; and
- Glass.

Tenants will be required to take their segregated waste materials to their designated WSAs and dispose of their segregated waste into the appropriate bins. Locations of all WSAs can be found on the plans submitted with the application.

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

Signage should be erected above internal bins and in the WSA to identify what waste types should be placed into each bin as appropriate. Bins/containers should be labelled, and colour coded to avoid cross contamination of the different waste streams.

The majority of waste materials collected in bins in the hotel rooms, common areas etc. will not be segregated and will be managed as MNR waste. Housekeeping and hotel cleaning staff will segregate waste, where possible, during cleaning by using segregated containers on their cleaning trolleys. Waste will be transferred from the cleaning carts to the appropriate bins in the WSA via the lifts and corridors.

The kitchen in the restaurant area will contribute a significant portion of the volume of waste generated on a daily basis, and as such it is important that adequate provision is made for the storage and transfer of waste from these areas to the WSA.

It is anticipated that waste will be generated in the kitchen throughout the day, primarily at the following locations:

- Food Storage Areas (i.e. cold stores, dry store, freezer stores and stores for decanting of deliveries);
- Meat Preparation Area;
- Vegetable Preparation Area;
- Cooking Area; and
- Dish-wash and Glass-wash Area;

Small bins will be placed adjacent to each of these areas as required for temporary storage of waste generated during the day. Waste will then be transferred from each of these areas to the WSA and placed into the segregated bins as detailed in Table 5.1.

All bins/containers in the kitchen, restaurant, bar and dining areas as well as 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 wastes can be put in each.

Other waste materials such as textiles, batteries, lightbulbs, printer toner/cartridges, cooking oil and WEEE may be generated infrequently by the tenants. Tenants 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 5.6

5.4 Waste Storage – Office

The office tenant(s) will segregate waste into the following main waste streams:

- DMR;
- MNR;

- Organic waste;
- Glass;
- Plastic; and
- Carboard.

Personnel nominated by the office tenants will empty the bins in the AWSs, as required, and bring the segregated waste using trolleys/carts/bins to their allocated WSA. Locations of all WSAs can found on the plans submitted with the application.

The office unit(s) may be occupied by a single tenant or multiple tenants. It is recommended that the office tenants implement the 'binless office' concept where employees do not have bins located under desks and instead bring their waste to Area Waste Stations (AWSs) located strategically on the office floors, at print stations/rooms and at any canteens, micro kitchens or tea stations which may be provided within the tenant's office space. Experience has shown that the maximum travel distance should be no more than 15m from the employee's desk 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. It is recommended that a confidential paper bin with a locked lid/door should also be provided for at each AWS and/or adjacent to photocopy/printing stations, as required. In addition, it is recommended that organic and glass bins should be provided at any canteens 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 binless office concept, in addition to assisting in maximising recycling rates and minimising associated landfill disposal costs, also has the advantage of substantially reducing cleaning costs, as cleaners visit only the AWSs on each floor, as opposed to each desk.

Suppliers for the tenants should be requested by the tenants 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.

It is proposed that confidential paper waste will be managed separately to non-confidential paper waste. Tenants will be required to engage with an appropriately permitted/licenced confidential waste management contractor for collection and shredding of confidential paper. It is anticipated that tenants will place locked confidential waste paper bins as required throughout their office areas. The confidential waste company will typically collect bins directly from the office areas, under agreement with the tenant, and bring the locked bin or bags of confidential waste via the lifts to their collection truck.

Other waste materials such as textiles, batteries, lightbulbs, printer toner/cartridges, cooking oil and WEEE may be generated infrequently by the tenants. Tenants 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 5.6

5.5 Waste Collection

There are numerous private contractors that provide waste collection services in the Dublin City 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/permited/licensed facilities only.

A servicing management strategy prepared in conjunction with the design team by SWECO and has been provided for this development to cover 'the Masterplan' and the individual Sites. This plan can be viewed as part of the planning application and provides the location of all temporary waste collection areas.

A trolley/tug or suitable vehicle may be required to convey the bins to/from the collection area.

The facilities management team or the waste contractor will ensure that empty bins are promptly returned to the WSAs after collection/emptying.

Bin collection times/days will be 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 waste contractor.

It is currently envisaged that the below collection locations will be used so that each site can act independently of each other site prior to the completion of the Dublin Central Masterplan. The Dublin Central Masterplan includes the introduction of the Metrolink Station, which prevents vehicles from accessing basement waste stores. In addition, all WSAs which are at basement level have insufficient height clearance for a standard waste truck to access. Therefore, all waste will be collected at grade. Upon completion of the Dublin Central Masterplan, additional loading bays will be provided off the carriageway to improve access for service and waste collection vehicles. In addition, the Estate Management Company will manage all site-wide waste operations to ensure smooth transition during collections and ensure waste bins are not left idle on the street. Suitably sized vehicles will be procured to serve the site, typically smaller refuse vehicles, less than 8m in length. The private waste contractors will have fob access to the bin stores. This prevents bins from being left on street for collection.

The Dublin Central Masterplan proposes all bins will be collected and returned directly to the waste storage areas by the waste contractor or by the Estate Management Company. At no stage will bins be stored within the public realm.

Masterplan

Site 1

Waste collections at Site 1 are proposed to occur via the proposed loading area on Moore Lane (north of O'Rahilly Parade).

Site 2AB

Waste collections at Site 2AB are proposed to occur via the proposed loading areas to the rear of 59 and 60 O'Connell St on Moore Lane, via the proposed link between O'Connell Street Upper / Moore Lane.

Site 2C

Waste collections at Site 2C are proposed to occur via the proposed loading area on Moore Lane (north of O'Rahilly Parade).

Site 3

Bins from the residential WSA will be collected from the existing loading area on Moore Street, while The waste truck will enter the passageway between block 3A & 3B to collect the commercial and hotel waste directly from the shared commercial and the hotel WSAs.

Site 4

All commercial and residential bins from this development will be brought to a temporary collection point on Moore Street, from the WSAs by the waste contractor or facilities management company, immediately prior to collection. There are two bin stores in Site 4 – one in the north, the other in the south.

South: The waste vehicle will utilise the existing loading provision on Moore Street to access the southern bin store within Site 4, as existing. This bin store is approximately 20m from Moore Street. The commercial operator will collect the bins before emptying them and returning the empty bins to the bin store.

North: The waste vehicle will utilise the existing loading provision on Moore Street to access the northern bin store within Site 4, as existing. This bin store is approximately 22m from Moore Street. The commercial operator will collect the bins before emptying them and returning the empty bins to the bin store.

Site 5

Waste vehicles will utilise the proposed loading area on O’Rahilly Parade to access the proposed Site 5 bin store directly. The waste contractor will return the bins to the bin store immediately after collection.

61 O’Connell Street

Waste collections for 61 O’Connell Street are proposed to continue to occur via the rear entrance to the building on Henry Place.

5.6 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 external landscaping and 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

A take-back service for waste batteries and accumulators (e.g. rechargeable batteries) is in place in order to comply with the Waste Management 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 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.

The commercial tenants cannot use the civic amenity centre. They must segregate their waste batteries and either avail of the take-back service provided by retailers or arrange for recycling/recovery of their waste batteries by a suitably permitted/licenced contractor. Facilities management may arrange collection depending on the agreement.

Waste Electrical and Electronic Equipment (WEEE)

The *WEEE 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 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.

As noted above, the commercial tenants cannot use the civic amenity centre. They must segregate their WEEE and either avail of the take-back/collection service provided by retailers or arrange for recycling/recovery of their WEEE by a suitably permitted/licenced contractor. Facilities management may arrange collection depending on the agreement.

Printer Cartridge/Toners

It is recommended that a printer cartridge/toner bin is provided in the commercial units, where appropriate. The commercial tenants will be required to store this waste within their unit and arrange for return to retailers or collection by an authorised waste contractor, as required.

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 centre.

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 commercial units that are classed as hazardous (if they arise) will be appropriately stored within the tenants own space. Facilities management may arrange collection depending on the agreement.

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 centre.

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

Waste light bulbs may be generated by lighting at the commercial tenants. It is anticipated that commercial tenants will be responsible for the off-site removal and appropriate recovery/disposal of these wastes. Facilities management may arrange collection depending on the agreement.

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

Textiles

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

Waste Cooking Oil

If the commercial tenants use cooking oil, waste cooking oil will need to be stored within the individual units on a bunded area or spill pallet and regular collections by a dedicated waste contractor will need to be organised as required. Under sink grease traps will be installed in any cooking space.

If the residents generate waste cooking oil, this can be brought to a civic amenity centre.

Furniture (and other bulky wastes)

Furniture and other bulky waste items (such as carpet etc.) may occasionally be generated by the commercial tenants. The collection of bulky waste will be arranged as required by the tenants. If residents wish to dispose of furniture, this can be brought a civic amenity 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.

Covid-19 Waste

Any waste generated by residential and commercial tenants that 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 development is open and occupied and the relevant guidance at the time will need to be reviewed.

5.7 Waste Storage Area Design

The WSAs should 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, residents and tenants will be required to maintain the WSAs in good condition as required by the *DCC 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 *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 areas for waste storage will provide sufficient room for the required receptacles in accordance with the details of this strategy.

DDC PLAN NO 5432/22
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7.0 REFERENCES

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