Waste Management Guidelines for Architects and Property Developers Contents

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Section 1 Introduction

1.1 Purpose of Document

This document provides guidelines for architects and developers of new residential, commercial and mixed-use units in the London Borough of Newham, to ensure that the arrangements for storing, collecting and managing waste are appropriate.

Proper waste management design is important as it makes it easier for residents to segregate recyclable materials from their refuse and makes it more efficient to collect.

The requirements for managing waste are different according to the type and size of each development, so care should be taken to ensure the right sections of these guidelines are used.

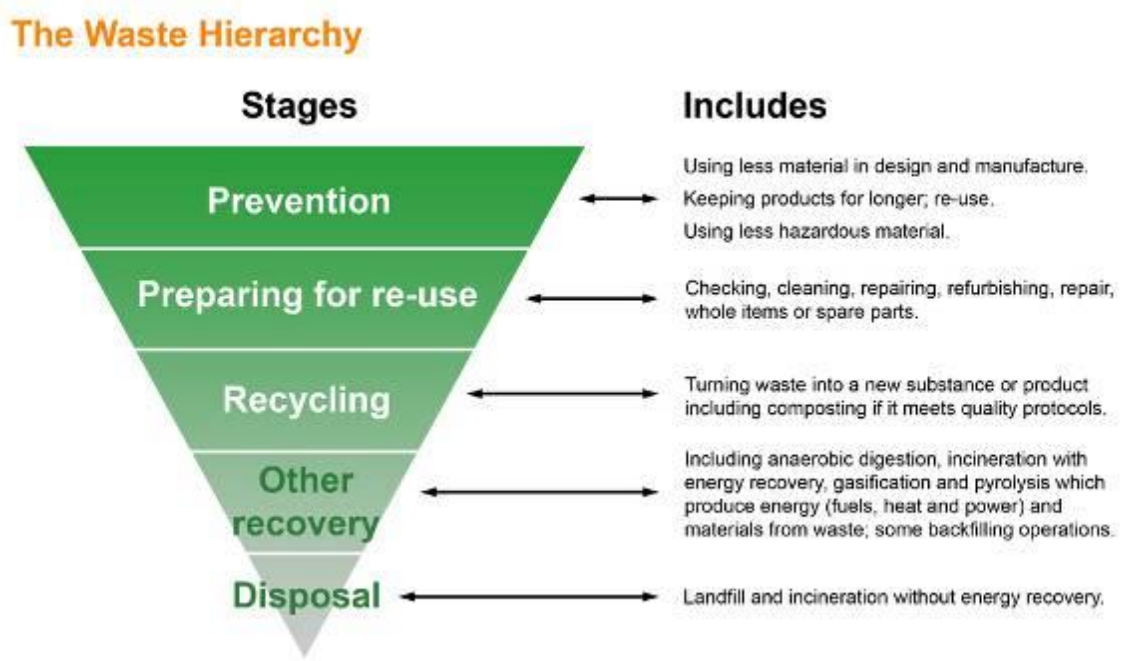
Architects and developers should also refer to Approved Document H6 of the Building Regulations 2015; which requires adequate provision to be made for the storage of solid waste and adequate means of access to be made for residents to the place of storage and for collection operatives.

These guidelines do not cover the requirements for managing construction and industrial waste.

1.2 Policy Context – National

The **Environmental Protection Act 1990** and the **Environment Act 2021**, which makes amendments to strengthen and enforce adoption of the environmental provisions in the 1990 act, are the primary legislation governing waste management, and define many of the roles and responsibilities involved. In particular, they set out the duties of a waste collection authority (such as the London Borough of Newham) to collect refuse and recycling produced by residents, subject to this waste being presented in an appropriate manner.

Whilst the UK was a member of the European Union (EU), the **Waste (England and Wales) Regulations 2011** transposed the EU's Waste Framework Directive from European to English law. The UK will continue to operate under these regulations irrespective of the UK's exit from the EU, as the laws were already written into UK statute at the time of the UK's departure. These Regulations require local authorities, businesses and other bodies to ensure that all aspects of waste management are governed by the following hierarchy:



This means that architects and developers must make provision for waste to be reduced or reused prior to being put out for a recycling or refuse collection. There is more information on the local context in the next section.

Under the Government's new 'Simpler Recycling' proposals, Newham will be mandated to collect a core set of dry recycling materials including glass, paper, plastic and metals. It has been decided that councils including Newham will be able to continue to collect recycling co-mingled (where different materials are collected together and separated later).

Further relevant National waste legislation is outlined below:

Waste Management, The Duty of Care Code of Practice (2018 update)

This code of practice is pursuant to Section 34(9) of the Environmental Protection Act 1990. It sets out practical guidance on how to meet waste duty of care requirements and is admissible as evidence in legal proceedings, i.e., its rules will be taken into account where relevant in any case based on breach of the duty of care.

The Waste (Circular Economy) (Amendment) Regulations (2020).

These regulations came into force on 1 October 2020 and amended a raft of primary and secondary legislation on waste; to introduce a revised legislative framework to support the EU's Circular Economy Package (CEP), identifying steps for the reduction of waste and establishing an ambitious and credible long-term path for waste management and recycling. The UK will again continue to operate under these regulations irrespective of the UK's exit from the EU.

Resources and Waste Strategy (2018)

The strategy set out the direction in travel of government's thinking on policies with regards to waste and resources. This included aspirations to:

- Improve recycling rates by ensuring a consistent set of dry recyclable materials is collected from all households and businesses.
- Reduce greenhouse gas emissions from landfill by ensuring that every householder and appropriate business has a weekly separate food waste collection, subject to consultation.
- Improve urban recycling rates, working with business and local authorities.

- Eliminate avoidable waste of all kinds by 2050.

Many of the policies aspired to in the Resources and Waste Strategy will be implemented via the Environment Act 2021.

Future Requirements – The Environment Act 2021

The Environment Act 2021 sets out how waste will need to be collected in England. The Act contains a number of provisions which will be implemented over coming years, with specific requirements and timescales yet to be set by Government. Specifically, the Act mandates that all local authorities must:

- Collect food waste from all households (including flats and flats above shops) once per week.
- Collect garden waste from all households.
- Collect a core set of 'dry' recycling materials.[1]
- Collect these 'dry' recycling materials separately from each other where possible, though an exemption is likely to be given as part of 'Simpler Recycling' to allow councils to collect these materials together, as Newham does presently.[2]

The Regulations and dates for introduction of these measures are yet to be released, but it is expected to be a requirement from the financial year 2025/26 or sooner. Developers should be aware of these incoming Regulations, as they may change the requirements for new developments.

1.3 Policy Context – Regional and Local

Regional policy

The provision of adequate and easily accessible refuse and recycling facilities in developments is consistent with the following regional policy documents:

- London Plan (2020): Policy SI 7, *reducing waste and supporting the circular economy,* sets out how resource conservation, waste reduction, increases in material re-use and recycling, and reductions in waste going for disposal will be achieved. Provision of suitable recycling facilities will increase opportunities for participation in recycling schemes.

- Housing Supplementary Planning Guidance (2016): The Mayor's Housing SPG sets out the following standards for waste collection provision in new developments:

  > Standard 22 - Communal refuse and recycling containers, communal bin enclosures and refuse and recycling stores should be easily accessible to all residents including children and wheelchair users, and located on a hard, level surface. The location should satisfy local requirements for waste collection. Refuse and recycling stores within buildings should be located to limit the nuisance caused by noise and smells and maintained to a high hygiene standard.
  >
  > Standard 23 - Storage facilities for waste and recycling containers should be provided in accordance with local authority requirements and meeting at least British Standard BS5906:2005 Code of Practice for waste management in Buildings.

- The Mayor's Municipal Waste Strategy (2011).

- The Mayor's London Environment Strategy (2018).

[1] Likely to be: glass, paper, card, plastic bottles, plastic pots/tubs/trays, steel cans/tins, aluminium cans/tins, foil, aerosols, and cartons. Plastic film is likely to be added to the requirements at a later date.
[2] Consistency in household and business recycling in England, Consultation outcome, Government response, 21 November 2023

Local Policy

The London Borough of Newham is aspiring to become London's greenest local economy and has committed to tackle the climate emergency with a target of carbon neutrality by 2030 and zero carbon emissions by 2050. In 2022, the London Borough of Newham released its latest Recycling and Waste Collection Policy document, which details all the services available in the borough which support the minimisation of waste and promote recycling. Relevant to developments and developers, this policy includes:

- Management of waste collection crew access whilst roads are not adopted.
- Arrangements for bulky waste collections.
- Arrangements for Underground Refuse Storage.
- Procurement of bins for new properties.

The requirements set out above and in this document are aligned with the 2018 LB Newham Local Plan.

The Council is presently undertaking a review of its Local Plan, with submission to the Planning Inspectorate anticipated in 2024. See here for details of the Local Plan update. In preparation for the new Local Plan, this document has been aligned where relevant with the latest draft Local Plan available. Specifically with relevance to this document, the new Local Plan proposes, and this Guidance document reflects, requirements for:

- Well-designed waste storage spaces in new housing developments to provide enough accessible space to store recycling, food waste and general waste for collection.
- A new requirement for the Borough's largest housing developments to provide dedicated reuse rooms, where residents can leave items for other residents to collect and reuse or use as a space for tool sharing.
- Minimisation of environmental impacts from waste facilities and utilities infrastructure, including smells and noise, through design of facilities and odour impact assessments.

The Council also promotes use of the British Standard BS 5906:2005 (waste management in buildings code of practice), the Mayor of London's Housing Supplementary Planning Guidance and BREEAM (Building Research Establishment Environmental Assessment Method). Complying with requirements set out in the Newham Recycling and Waste Collection Policy will help developments meet the requirements set out in BS 5906:2005, in the Mayor of London's planning guidance, and to achieve BREEAM credits.

The London Borough of Newham is one of four constituent boroughs in the East London Waste Authority (ELWA), along with Barking & Dagenham, Havering and Redbridge. The four boroughs are Waste Collection Authorities, whilst ELWA is the Waste Disposal Authority.

In 2002 ELWA let a 25-year private finance initiative contract to manage its treatment disposal operations. This contract was designed to minimise landfill through recycling, material recovery and manufacture of solid fuel. New waste treatment facilities were constructed by the contractor to manage the waste collected by the four boroughs, and the contractor also took on responsibility for operating the civic amenity sites and public recycling bank network.

A Joint Waste Development Plan for the ELWA councils was adopted in February 2012. ELWA also ran a joint waste prevention programme for East London as a two-year trial from the spring of 2021. Information on the plan for the first year (April 2021 to March 2022) can be viewed here. The forth-coming Joint Strategy for East London's Resources and Waste (2027-57) can be viewed here.

Waste disposal is funded through a levy on the four boroughs, which is primarily based on the total amount of waste collected. The levy increases each year at a rate that exceeds inflation, which means that the costs of waste disposal are continuing to rise during a period of ongoing cuts to local authority funding. Increasing the amount of waste that is recycled does not deliver significant savings,

and it is therefore a priority for Newham and the other boroughs to *reduce* the amount of waste collected in order to control the disposal costs.

1.4 Waste Reduction

Owing to the rising financial and environmental costs of waste disposal, it is the London Borough of Newham's policy to require architects and developers to properly apply the waste hierarchy in new developments by taking steps to encourage a reduction in the amount of waste that is presented for collection. This is in addition to more established strategies for maximising recycling, such as making internal and external space available for segregation of recyclable items from other waste.

The following are suggested actions for reducing waste arisings at new developments:

- Provide on-site composting facilities for all developments, including individual compost bins in private gardens and community composting sites on larger developments. Information on how to compost materials at home, and the benefits of doing so, should be provided in all new residents' packs.
- Engage with community and third sector organisations to collect reusable furniture items from bulk waste stores.
- Provide and manage a communal tool and equipment store/service for residents in blocks of flats, including vacuum cleaners, power drills etc. This will help with storage pressure in the flats, as well as reducing the need for residents to buy products that will actually be used very little.
- Encourage reuse and sharing of items amongst neighbours by providing a reuse room and physical or digital noticeboard (see Section 3). This could include furniture, kitchenware and cleaning appliances, as well as books, and other such products. Larger developments should look to create partnerships with reuse organisations and "peer to peer" sharing groups.
- Select durable, high-quality materials and fitted appliances for new homes and businesses.
- Consider the installation of small-scale on-site combined heat and power (CHP) systems fuelled by waste for new larger developments. There is more detail on alternative waste technologies given in Section 7.

1.5 Submitting Planning Applications

When a planning application is submitted, the London Borough of Newham will expect details of the proposed storage accommodation for waste and recyclable material to be specified and agreed.

We want the design of new buildings to make it as easy as possible to recycle and reuse and keep different types of waste separate. Waste management should be considered at the outset of a development's design, reducing the need for future retrofitting in order to meet future changes in waste policy and collections.

In determining planning applications, permission will not normally be granted in advance of submission of details indicating satisfactory storage arrangements for waste and recyclable material. However, in exceptional circumstances it may be considered appropriate to reserve details of the waste storage accommodation for approval prior to the commencement of construction.

In larger developments the Council will require a Waste Management Plan to be submitted. The new Newham Local Plan sets out the requirements for Waste Management Plans.

Architects and developers are encouraged to consult with the Council's Waste Management department at the earliest opportunity in the design process to ensure that proposals for waste storage

and collection meet the necessary requirements. Developers of mixed-use or commercial sites may also need to consult with other waste collection providers to ensure that their requirements are met.

Section 2
Houses

This section of the guidance should be followed for houses or ground floor flats with a front garden or yard, where each property will have individual waste storage provision.

The London Borough of Newham does not recommend the use of communal waste storage for developments of houses, and encourages developers to ensure that all street-level properties have direct road access to simplify waste collection services. However, where this is not possible and it is instead intended that communal waste storage solutions will be used, architects should follow the guidance in Section 3 for the design and positioning of bin stores.

2.1 Collection Services Overview

The London Borough of Newham currently provides a refuse and recycling service for residents in individual houses.

Wheelie bins are used for containing and collecting refuse, and are emptied every week.

Wheelie bins are also used for dry recycling, and are also emptied every week. Dry recycling is collected co-mingled, which means all recyclable material is collected together and sorted by material type later on at a Materials Recovery Facility (MRF).

As a result of upcoming UK legislation (see Section 1.2) and the Council's environmental aspirations, it is likely that the Council will introduce a weekly food waste collection service to every property across Newham. Therefore, all new development plans need to now take the storage and collection of food waste into consideration, and the developer must ensure food waste storage provisions are in place upon occupation by the householder(s).

Collections currently happen between 6AM and 2PM for refuse and 2PM to 10PM for recycling Monday to Friday. No time slots or collection days can be assigned to individual developments. The Council's stipulated collection day and time may change depending on numerous factors, including around Bank Holidays with collections sometimes occurring on weekends.

2.2 Internal Storage

To enable and encourage occupants of new residential units to recycle their waste, developers should provide adequate internal storage, usually within the kitchen, for the segregation of recyclable materials from other waste to help reduce the amount of waste being presented for collection.

Internal space for storage should be able to store at least two bins for different types of waste, and have a minimum capacity of 30 litres each. Space should also be allowed internally in the kitchens for a small food waste caddy of 3 or 5 litres. It is recommended developers consider installing a kitchen base unit with integrated bins for the segregation of waste, dry recycling and a removable food recycling bin.

2.3 External Storage – Capacity

Developers should ensure that there is sufficient and appropriate space within the front garden or yard for the necessary wheelie bins.

For one to five person households, space will be needed for one 23-litre food waste caddy, one 220-litre or 330-litre garden waste bin, and two 240-litre bins (one for refuse and one for recycling), with the possibility of a larger bins for households of six or more (see below).

When estimating the number of people that could live in a property, developers should assume that two people will live in a double room and one person will live in a single room. The dimensions of all standard bin sizes are included in Appendix A. If 16 or more people could live in the property, please contact the waste team directly to discuss bin size requirements.

The table below provides information on the size and number of residual waste bins, recycling bins and food waste caddies required for the number of people living in a house as one household. More information on the garden waste service can be found in Section 2.6, and separate guidance regarding the bin capacity for a House in Multiple Occupation (HMO) is outlined below.

The below table works on the assumption that each person living in a property should have access to a minimum of 48-litres of residual and 48-litres recycling capacity per week.[3]

Houses in Multiple Occupation (HMO)

Number of people that could live in the property*	Residual waste bin capacity	Recycling bin capacity	Food waste capacity
1-5 people	1 x 240-litre bin	1 x 240-litre bin	1 x 23-litre caddy
6-8 people	1 x 360-litre bin	1 x 360-litre bin	1 x 23-litre caddy
9-13 people	1 x 240-litre and 1 x 360-litre bins	1 x 240-litre and 1 x 360-litre bins	2 x 23-litre caddy
14-15 people	2 x 360-litre bins	2 x 360-litre bins	2 x 23-litre caddy
16+ people	Please contact the recycling and waste team		

(*) When calculating the number of people that could live in a property, developers should assume that two people could live in a double room and one person could live in a single room.

Where a street-level property is being subdivided into flats or a HMO, it may be appropriate to allow for each dwelling to have its own refuse and recycling bins. However, the proliferation of wheelie bins can have a detrimental visual impact on the local environment, so adequate solutions must be devised by architects to minimise this. In some cases, it may be more appropriate to move the property onto a communal waste storage system, using larger wheelie bins or Eurobins (see Section 3 and Appendix A for more information).

Landlords and/or managing agents of HMOs should ensure their property has the correct bins and clear, up to date signage. More information on the barriers to recycling and how landlords can support recycling can be found here: https://relondon.gov.uk/resources/report-recycling-in-londons-hmos

Landlords and/ or managing agents must have a licence to rent out a property in Newham, and part of this licence may mandate the type and size of waste collections at the property. HMOs where landlords and/or managing agents do not have a licence will receive a standard household waste & recycling collection service in accordance with the above table.

[3] The Council currently provides a 240-litre refuse bin and a 240-litre recycling bin to households with five or less people living in the property. A household with five people therefore has a refuse capacity of 48-litres of per person per week and a recycling capacity of 48-litres per person per week.

2.4 External Storage – Design Features

Home storage and communal points should be designed to BS8300-1:2018 as part of an accessible and inclusive built environment.

The design of the front garden or yard should enable all of the bins to be stored in a shaded position away from windows, sitting on a hard surface. The bins must not intrude on the street scene, and therefore must be contained within an appropriate front wall, fence or hedge for the garden, or alternatively within a dedicated and suitably designed structure/enclosure within the boundary of the premises. Bin storage areas should be located to minimise nuisance to adjoining properties.

To help combat waste and recycling bin fires, fire prevention organisations such as the FPA and CFPA-E recommend that bins should not be stored within six metres of any building opening such as doors, windows, ventilation ducts or exposed soffits and fascias. If this safety distance is impossible to achieve, they should be stored in a structure which prevents the bins from being moved closer to the building, and which meets the requirements outlined in Building Regulations Part H and BS 5906:2005.

BS 5906:2005 states that *"Shelters constructed as an integral part of the building or out-building should be open to the air and be of a sufficient size to accommodate containers as specified by the local authority"*.

Building Regulations Part H6 states that *"Adequate provision shall be made for storage of solid waste. Adequate means of access shall be provided: For people in the building to the place of storage; and From the place of storage to a collection point (where one has been specified by the waste collection authority) or to a street (where no collection point has been specified)."*

In all cases there must be sufficient space for the occupants to easily access both their refuse and recycling bins to deposit waste and it must be possible for the lids of all bins to be fully opened. There should be sufficient clearance around and between each bin to enable ease of movement. Each bin should be able to be used, moved and emptied without having to move another bin first. The location of waste containers should be sited so that they don't have to be taken through a building to be emptied, unless it's a porch, garage, car port or other open covered space. All collections for individual houses take place at the front of the premises. Residents are required to present their wheelie bins for collection at the boundary of their premises, but not on the pavement itself. Adequate provision must be made for the elderly, disabled and families with young children, such that the design of the front of the premises enables residents to set out all of the required containers for collection on the same day while maintaining sufficient access to the property entrance for a wheelchair or double-buggy.

Appropriate access for collection crews must also be included in the design of the outside space. This should involve solid surfaces, with a maximum of one step down to the pavement from the bin storage/presentation point (there must be no steps up from this position). The access must not be blocked by shrubbery or utility installations. The distance from the presentation point to where the collection vehicle can safely stop should be no more than 15m for bins of up to 240-litres, or 10m for larger containers. There should not be any locks on the doors or gates of bin storage chambers for individual houses.

If developments of individual houses are located on new access roads, these must be designed in accordance with Section 6 to allow safe use by waste collection vehicles.

2.5 Bulky Household Items

Newham residents are offered a chargeable collection for most items that will not fit into their refuse wheelie bin, such as furniture or large appliances. Up to six items can be collected at a time. For more

information visit https://www.newham.gov.uk/rubbish-recycling-waste/bulky-household-waste-collections/4

Developers should ensure that residents are able to present large items for a collection so that no obstruction is caused to building exits, nor to the refuse and recycling bins.

2.6 Garden Waste

Residents can book a free green garden waste collection from the Council. The material being put out for collection should be placed in tied-up bundles or loosely-tied normal refuse sacks in their front garden. Developers should therefore ensure that there is sufficient space at the front of the premises for such material to be presented for collection so that no obstruction is caused to building access or the refuse and recycling wheelie bins.

To enable and encourage residents to compost their garden waste at home, the Council requires any major developments of properties with a rear garden include sufficient space for a home composting bin. Newham residents can purchase home composting bins at reduced prices, from https://getcomposting.com/profile/login

Two sizes are available:

- 220-litre: 900mm high, 740mm diameter
- 330-litre: 1000mm high, 800mm diameter

Developers are encouraged to install compost bins in all private gardens to encourage their use by residents.

Section 3
Purpose-Built Flats

Developers and managing agents are expected to work with the council to make recycling work for people living in flats using the ReLondon Toolkit for the Flats Recycling Package. The table below summarises the responsibilities of developers and managing agents and the council's own responsibilities.

Responsibility of Developers	Responsibility of the Council
1. Clean, well maintained bins and bin areas. 2. Ensure appropriate residual, recycling and food waste capacity. 3. Recycling bins conveniently located for residents. 4. Clear and visible signage on recycling and rubbish bins and at bin storage areas. 5. Posters highlighting recycling messages displayed in a central location (where possible). 6. Residents informed of what they should do with bulky waste items (signage/posters).	1. Appropriate aperture on recycling bins big enough to accept plastic bags of recycling and with locked reverse lids. 2. Collection of six main recyclable materials. Paper, card, glass, food and drink cans, plastic bottles and mixed rigid plastics (tubs, pots and trays). 3. Recycling leaflet sent to residents once a year.

This section provides information and guidance on waste storage and collection requirements for purpose-built blocks of flats, where residents share communal waste facilities.

The guidance given in this section on the design, size and location of bin stores will be applicable for other types of facility as well, including commercial units and other housing developments that use communal bins.

There is specific information provided in Section 5 for sites where waste containers are to be stored underground or using vacuum systems.

In new developments, and particularly larger-scale sites with 50 units or more, it may be appropriate for alternative on-site waste treatment and management solutions to be built into the design, which will help to reduce the impact on the local environment and reduce the requirements for waste storage capacity. For more information please see Section 7.

Architects and developers should be aware that the London Borough of Newham does not offer a compacted waste collection service and strongly discourages the adaption of this for residential waste as it incurs additional cost for the residents. At sites where compaction is used, waste collection and disposal will need to be arranged and paid for through a private contractor that is able to offer an appropriate service. More information on compaction is available in Section 4.7.

3.1 Collection Services Overview

The London Borough of Newham currently provides weekly refuse collection services for residents living in purpose-built flats, with separate weekly collections of recycling.

Most purpose-built flats have communal refuse bins for residents to use. The standard type of bin are metal Eurobins (see Appendix A), but in some smaller developments there are sets of two-wheeled plastic bins. In locations where there are refuse chutes installed, Chamberlain bins or Eurobins are normally used (see Section 3.12).

Separate containers are used for recycling. These communal Eurobin containers are sited around bin storage areas or other appropriate locations, and are clearly labelled and painted in different colours to distinguish them from refuse containers.

Newham Council recommends that conditions should be included in any tenancy / leaseholder agreements to ensure that residents commit to segregating their waste for recycling and presenting it in the prescribed manner.

As a result of upcoming UK legislation (see Section 1.2) and the council's environmental aspirations, it is likely that the council will introduce a weekly food waste collection service to every property across Newham. Therefore, all new development plans need to now take the storage and collection of food waste into consideration. Developers must ensure food waste storage provisions are in place upon occupation by the householder(s). If a development of flats is to become occupied before the food waste collection is launched, then either the bin housing units should be installed but kept locked, or the developers should make a contribution to the cost of the council purchasing and installing the food waste housing units at a later date.

Collections currently happen between 6AM and 2PM for refuse and 2PM to 10PM for recycling Monday to Saturday. No time slots or collection days can be assigned to individual developments outside these parameters. Days may change depending on service demand and around Bank Holidays, with collections sometimes occurring on Sundays during this period.

If a large bin store is planned, then the on-site team must consider residents' behaviour and be responsible for moving bins around and moving waste if there are overflows etc.

The London Borough of Newham offers residents a chargeable collection of most bulky household items, which are also available to occupants of developments where communal waste storage is provided. Developers must provide a designated area must be provided for bulky waste in which the total floor area provided for storage of bulky waste awaiting collection must equate to $10m^2$ per 50 households, with a minimum of $7.5m^2$. The bulky waste storage area must be indoors as, once bulky waste items such as furniture have been left outdoors, any opportunity for reuse is likely to have been lost.

Only those items which a resident has directly booked for collection will be cleared by the council from developments/bulky waste rooms (bookings are not accepted from managing agents or site staff). Where bulky items are dumped on a private development (or left in a waste storage area without a collection being booked), it is the responsibility of the site managers to organise a collection through a commercial arrangement with the Council or a private contractor. Visit www.newham.gov.uk/waste for more information.

Major housing developments on site allocations should provide a well-managed re-use and circular economy room, where residents can leave items for other residents to collect and reuse and/or which residents can use as a space for tool and equipment sharing. Such rooms are also recommended for other developments, but they are only mandated on such major sites in the proposed new Newham Local Plan.

See Section 3.10 for further details on bulky waste and reuse rooms.

3.2 Internal Storage

To enable and encourage occupants of new residential units to recycle their waste, developers should provide adequate internal storage for the separation of recyclable materials from other waste. Developers must provide internal space for at least three streams of waste: residual, dry recycling and food waste.

Internal dry recycling bins must be located in a dedicated non-obstructive position. This must be in a cupboard in the kitchen, close to the non-recyclable waste bin, or located adjacent (within 10 m) to the kitchen in a utility room. Space will be required for two bins with a capacity of at least 20L each for residual waste and dry recycling.

Space should also be allowed internally in the kitchens for a small food waste caddy of up to 5 litres – upon occupation of the householder the developer will be responsible for ensuring that all units are supplied with one 3 or 5 litre caddy (if an integrated base unit is not provided) and one roll of 20 liners that comply with BS EN 13432.

It is recommended developers consider installing a kitchen base unit with integrated bins for the segregation of waste, dry recycling and a removable food recycling bin. Residents may alternatively be responsible for providing their own internal containers. However, it is recommended that developers consider methods to integrate bins or reusable sacks for recycling into the design of the kitchen areas to enable and encourage residents to make full use of the recycling facilities.

3.3 External Storage – Capacity

The London Borough of Newham will undertake one weekly collection of refuse and one weekly collection for recycling. Weekly food waste collections are also likely to be introduced over the coming years (see Section 1.2). Sufficient capacity for waste storage must be provided for each household to allow for extended gaps between collections owing to Bank Holidays, severe winter weather or other operational disruptions.

The London Borough of Newham recommends that developers follow the guidance issued in document H6 of the Building Regulations with regards to waste storage capacity, so that a total of 0.25m^3 (250 litres) is provided per dwelling.

Developers may choose to follow the formula below for calculating waste storage capacity where there is an average of less than 2 bedrooms per unit. However, any eventual under-provision of waste storage that results from not providing the recommended capacity will be the responsibility of the site managers to resolve.

This calculation should be used to determine the total waste, recycling and food waste capacity. The calculation assumes 48-litres per person per week allocated to recycling and residual and 10-litres per flat per week allocated to food waste:[4]

Residual waste capacity = ((2 x number of double bedrooms) + (1 x number of single bedrooms)) × (volume of residual waste arising per person [48-litres])

Recycling capacity = ((2 x number of double bedrooms) + (1 x number of single bedrooms)) × (volume of recycling arising per person [48-litres])

Food waste capacity = number of dwellings × (volume of food waste arising per flat [10-litres])

Residents will take food waste from the kitchen in their caddy to deposit in the communal bin. The communal food bin size recommendation is 180-litres for every multiple of up to 18 flats. The communal food waste bin(s) should be placed next to the refuse and dry recycling bins, for the residents' convenience, inside or outside of the bin store. In both cases, they must be stored inside housing units with close fitting lids to prevent unpleasant odours and animal interference. Consider

[4] The Council currently provides a 240-litre refuse bin and a 240-litre recycling bin to households with five or less people living in the property. A household with five people therefore has a refuse capacity of 48-litres of per person per week and a recycling capacity of 48-litres per person per week.

push pedal access for residents so they don't need to touch the bins. Communal food waste bins should be cleaned regularly by the developer/management agent, four times a year minimum.

Upon occupation by the householder, the developer will be responsible for providing and installing housing units for communal food waste bins.

Developers should give consideration to the flexibility of the storage capacity provided, so that the council and site managers are able respond effectively to rising levels of resident participation in recycling and/or an increased range of materials becoming accepted in the recycling bins.

Similarly, developers should also consider arrangements for the management of excess waste generated as residents move in and out of properties. Residents producing excess household or bulky waste during the move in/out process must not contaminate the communal waste bins, nor should they leave excess rubbish or bulky items in the bin store or near the bin area. Developers/managing agents must ensure that bin stores are managed and cleansed appropriately to enable this, and that any bulky waste storage areas (see Section 3.1) are also adequately managed and cleaned.

Where a resident vacates a property and leaves waste that they have generated inside, this waste becomes the responsibility of the managing agent/landlord. Landlords and managing agents should consider adding a clause to tenancy/leaseholder agreements requiring the property to be cleared of all waste at the end of the agreement, with failure to comply resulting in, for example, a charge for waste removal which could be taken out of their deposit.

3.4 External Storage – Bins

For developments with more than 6 households, communal 1100-litre Eurobin containers should be provided for both refuse and recycling. However, for developments of 6 or fewer households, it is permissible for communal two-wheeled 360-litre bins to be used. The total storage capacity should comply with the requirements given above.

It shall be the responsibility of the developer to purchase the necessary bins for external waste storage, and ensure that these are in place before residents move into new properties. In order to ensure the manufacturing quality, branding and labelling meet required standards, developers or site managers should purchase the necessary refuse and recycling bins from the London Borough of Newham. Bins must be purchased, and will not be provided by the local authority on hire.

The Council reserves the right to refuse to empty bins that do not meet the required standards if there is a risk of damage to the collection vehicles or to the safety of the collection staff.

Any terms and conditions for the supply of containers will be provided at the point of purchase, and the latest prices should be sought from the Council.

It will be the responsibility of the site managers to arrange for bins to be cleaned. It is recommended that space is allocated on-site for the storage of at least one empty container, to allow cleansing of bins to be undertaken on a rotation basis without reducing the availability of refuse and recycling storage capacity.

Site managers will be responsible for the security of the bins, and the storage arrangements should therefore be designed to minimise the risk of misuse by non-residents, theft, arson or other vandalism. In the event of a bin being stolen or damaged beyond repair through vandalism, the site manager will be required to purchase a replacement container.

It will be the responsibility of site managers to adequately cleanse waste storage and collection areas, including the floor, internal walls, bins and lighting fixtures. Site managers will also be responsible for ensuring that all waste is placed into the containers for collection. This includes materials that have been placed beside or on top of bins, or waste that has overflowed from the containers. The council

will only be responsible for clearing waste storage and collection areas if overflowing bins are as a result of a missed collection.

3.5 External Storage – Location

For purpose-built flats it is necessary to provide an appropriate storage area for refuse and recycling containers. These must be an integral part of any new development, with appropriate design, capacity, layout, access and signage. Communal bin storage areas should be clearly identified on plans, and the space allocated to them must be guaranteed for the purposes of waste storage.

Communal bin storage areas must be located within the footprint of the development, and ideally be at ground level. However, if an underground storage solution is planned for standard wheeled bins (such as in a basement car park) then an appropriate collection point for the containers at ground level must be provided and clearly shown on the plans. Developers may consider an open rail gate with a welded mesh on the back of it for internal bin rooms so that residents can see inside the bin room before entering it from the outside.

The location of bin stores should be considered to ensure they will not cause significant odour impacts and considering land gradients when accessing the store. Bin stores should be located a sufficient distance from bedrooms or other habitable rooms to avoid odour impacts to residents.

If it is planned that site managers move the bins to a central collection point, then they must be aware of the collection times being between 6AM and 2PM for refuse and 2PM to 10PM for recycling and present them accordingly. We need evidence to show that site management strategy is adequate and that staff are recruited on the basis that this physical labour will be required.

Please note that it should be a last resort for a site management company to be involved in moving bins to collection point, because it introduces another variable out of our control.

Blocks of flats are subject to routine Fire Risk Assessment under the Fire Safety Act 2005 and unsecured bins are frequently identified as a significant risk, based on guidance from the CFPA-E on bin separation distances from dwellings. Developers should always therefore ensure that adequate allowance is made to ensure bin storage minimises fire risk.

If bins stores are to be located outside the building; fire prevention organisations such as the FPA and CFPA-E recommend that bins should not be stored within six metres of any building opening such as doors, windows, ventilation ducts or exposed soffits and fascias. If this safety distance is impossible to achieve, they should be stored in a structure providing 30 minutes fire resistance and secured in place to prevent bins from being moved closer to the building and be accessible only to residents through a code / key / fob system. Such structures may include separate rooms or dedicated housing.

Developers must also ensure that Fire Evacuation Plans and Procedures are displayed prominently in bin storage locations. Said locations should be actively managed by developers/managing agents to ensure that bins are stored in the correct locations, that fire hazards are resolved (e.g., side waste removed) and that the site has a dedicated person responsible for fire hazards and fire risk assessment.

Bin storage areas should be easily accessible for the dwellings that they serve, with residents being required to walk no further than 30m from their front door (excluding vertical distances) when carrying refuse and recycling, and particular attention given to the needs of those with disabilities. There is some flexibility with this as the distance the bins have to be moved for collection is more critical due to their weight. For larger developments it may be necessary to provide several bin storage areas to ensure an adequate distribution across the site. The location of communal bin storage areas should have regard to the impact of noise and smell on the occupants of neighbouring properties, both

existing and proposed. The location will also need to ensure compliance with limits on bin pulling distances for collection teams, as set out in Section 3.8.

3.6 External Storage – Dimensions

The size and layout of each bin storage area must be designed to accommodate a sufficient quantity of refuse and recycling bins for the number of dwellings that the storage area is likely to serve. Where more than one bin storage area is being provided, consideration should be given to the likely usage of each storage area so that they are sized appropriately. Developers should take into account the preference of some residents to deposit waste as part of their daily commute, which may mean they use a bin store they walk past on their way out, rather than the one closest to their home. For blocks of flats divided into cores, the size of the bin stores must correspond to the number of dwellings accessed through each entrance.

All bins must be fully accessible from the front face to allow for easy depositing of waste. Layouts that require bins to be swapped round mid-week are permissible if it is demonstrated that there will be site management presence at the development throughout the potential collection window of 6am – 10pm Mon to Sat.

There must be a minimum of 150mm clearance around and between each bin within a storage area. Where there is more than one bin within a storage area, there must be 2m clearance in front of each of the accessible bins to enable it to be accessed and safely moved without needing to move any of the other containers.

All doors and alleys must be at least 2m wide to allow for safe manoeuvring of bins.

The minimum internal height for a bin storage area and any access doorways is 2m. There should be no other internal fixtures or fittings that reduce the clearance above the bins, so that their lids can be opened fully.

Where there is a large number of bins in a store a second door may be needed to assist in collections.

3.7 External Storage – Design Features

Bin storage areas should be contained within a suitable enclosure to prevent nuisance from the spread of waste, odour or noise. The walls should be constructed of materials that are **non-combustible**, impervious, easy to keep clean, and able to withstand impacts from fully-loaded Eurobins being moved. Where necessary, the installation of a suitable buffer can prevent contact between the bins and the inside faces of the walls. It is also recommended that any switches, plugs or other similar installations are placed above or well below the height of the rim of the bins.

The external faces of the enclosure walls should be constructed or clad in material that is in keeping with the visual style of the surroundings. It is recommended that the use of appropriate screening or soft landscaping is considered to make bin storage areas more aesthetically pleasing.

The enclosures must be suitably designed to prevent entry by vermin.

Where a roof is being placed over the bin storage area or it is located indoors, the enclosed space must be well ventilated. The roof must be constructed of **non-combustible**, robust, secure and impervious material.

If no roof is planned external compounds should only be slightly higher than the bins themselves (18pprox.. 15cm higher) so that residents can see who is inside the compounds before entering.

There should be adequate lighting in the bin storage area. This lighting should involve sealed bulkhead fittings for the purpose of cleaning down with hoses. Switching should be either through a

proximity detection system or on a time delay button to prevent lights being left on. This lighting should be easy to maintain by local site staff without the need for specialist parts.

The use of doors or gates can help to reduce the potentially detrimental visual impact of a bin storage area, and can also enable site manager to reduce the risk of bin theft or vandalism. Such doors must not open outward over a public footway or road, and should not cause an obstruction to other access when in an open position. They should be able to remain or be secured in the open position so that access for collection staff is unimpeded when the bins are being emptied. Doors should also be openable from the inside.

The thresholds of any doors or gates must be free of rims or impediments at floor level. Where these are part of the design of standard door units being installed, developers must apply graded resin strips or other appropriate features on either side to minimise any impediment to the movement of the bins. Floor-level thresholds must also be very securely fixed down to prevent rising, warping or other such issues.

There must be a water supply with standard tap fittings available to the bin storage area to enable washing down of the bins, walls and floor.

Bin storage areas must have a suitable impermeable hard standing ground covering which can be cleaned easily. The slope of the floor must enable it to drain properly and completely. The drainage system must be suitable for receiving a polluted effluent. Any gullies must not be in the track of the container wheels. See Section 3.4.6 for details on requirements for cleansing bin storage areas.

The design of bin storage areas should pay as much regard as possible to accessibility for disabled or elderly residents. Where the bin storage areas cannot be designed to meet the requirements of these residents, suitable alternative arrangements should be put in place by the site managers to support any tenants who are unable to use the external waste storage facilities provided.

Storage areas for refuse and recycling bins should be clearly identifiable as such, through the use of appropriate signage on doors or walls. The London Borough of Newham should be consulted in the design of these signs to ensure information is accurate, consistent and presented appropriately, particularly with regards to the waste and recycling services offered in the borough. The use of 'Recycle Now' iconography is recommended for recycling signage. See: https://relondon.gov.uk/resources/toolkit-flats-recycling-package.

3.8 External Storage – Access and Pulling Distances

The bin storage areas must be located within a specified minimum distance of a point where the collection vehicle can safely stop for loading. The maximum distances that operatives should be required to wheel containers, measured from the furthest point within the storage/collection area to the loading position at the back of the vehicle, are:

- 15m for any wheeled container up to 240-litres
- 10m for any container greater than 240-litres

The stopping point for the vehicle should be safe, legal, and designed to both minimise any obstruction to traffic and ensure that no bins need to be pulled across the carriageway. Please note the requirements for vehicle access given in Section 6.

The surfacing of the route the operatives will take between the bin storage/collection area and the vehicle should have a hard, smooth and continuous finish. The pathway must be free of any ironworks, trees, drainage gulleys or other features which would obstruct or impede the movement of the bins.

The pathway should be free of any steps. If access to a roadway is required along the route then a dropped kerb must be provided as close as possible to the storage area.

Slopes should be avoided wherever possible along the pathway, but where needed the gradient should fall away from the bin storage area and should be no greater than 1:12. It is not acceptable for the route between the storage area and the collection vehicle (i.e., in the direction that filled bins will be pulled) to have any uphill gradients.

Signage and, if appropriate, road/pavement markings should be used to indicate that the storage areas are not to be blocked at any time.

If the bin store is located underground, bins should be brought up to ground level by the site managers through the use of service elevators or ramps for collection. If access is through an underground car park, appropriate markings and parking restrictions may be required to protect access to the bin stores. It will be the responsibility of the site manager to move the waste containers to an agreed designated collection point at ground level, and return the containers to their storage area after emptying. A written statement must be provided to demonstrate how the movement of the bins to the collection point will be managed and undertaken. The plans must also show the parking location for any tractor and trailer that may be used by site staff for this purpose. Where a goods/service elevator is intended to be used to transport the bins to ground level, it must be large enough to safely accommodate a porter and the appropriate number of containers, and the width of the doors must allow free movement of the bins.

If locks are to be fitted to any doors or gates at bin storage areas, these should be of a standard 'Fire Brigade' pattern. The council encourages developers installing locks on bin storage areas to utilise keypads rather than fob/key access, as keypads are simpler for crews and residents to manage and reduce the likelihood of missed collections due to access issues. If a keypad and code is to be used for gaining access, then developers and site managers should be aware that the code will be shared with a number of collection staff, and all arrangements must be agreed with the London Borough of Newham prior to installation. If locks or codes are changed at any point, it will be the responsibility of the site manager to supply new keys or codes to the Council at no cost and as soon as the change has been made.

3.9 Designated Collection Points

In locations where it is not practicable for architects to provide full access to the bin storage areas for waste collection vehicles, or where standard Eurobins are to be located in underground car parks, a suitable, easily accessible designated collection point must be provided.

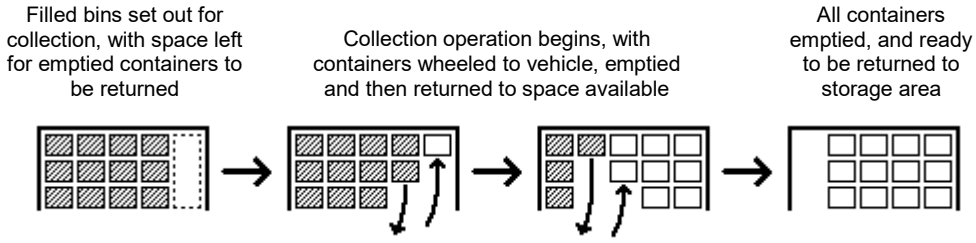
It is the responsibility of the site managers to move the waste containers to the designated collection point by 6am on the scheduled day, and then to return the containers to their storage areas after emptying. In the case of recycling bins, collections may not be completed until 10pm. No time slots can be allocated for collections – rubbish collections will be made between 6am – 2pm and recycling 2pm to 10am.

Sufficient provision should be made to ensure that all health and safety requirements are met for on-site staff to move the bins. Where bins are to be towed to the presentation point using a tug, there will be specific requirements for the site layout, bin design and towing operation. Further indicative information is provided in Appendix D.

To minimise the potential for delays to collections, the designated collection area should be large enough for all the refuse or recycling bins to be positioned ready for collection at the same time.

Where the designated collection point is on a pavement, developers must show there is sufficient space to store all bins without blocking access to users.

The space in the collection area must be sufficient to enable operatives to return emptied bins to a position that does not obstruct the manoeuvring of those containers that are yet to be emptied. A simple example of how this might be achieved is given in the diagram below:



Developers and site managers must make sufficient provision, e.g., through traffic regulation/ restrictions, to prevent other vehicles parking in the collection area, or in a position that would impede access for collection operatives. Where estates or developments are privately managed and/or the roads are not adopted by the council, site managers should take enforcement action necessary to ensure other vehicles do not park in the collection area or in a position that would impede access for collection operatives. Where roads in estates or developments are adopted by the council, site managers should proactively report issues to the council for enforcement action. Adequate arrangements must be provided for the collection vehicle to remain at its loading point for an extended period, particularly where a significant number of bins are to be emptied at the same time. Site managers should ensure that no other access is required to or through the designated collection point on the scheduled day of collection.

In positioning and designing the collection point, architects must ensure that the distance that operatives will need to wheel bins from the furthest point within this area to reach the loading point at the back of the collection vehicle does not exceed 10m.

Developers should ensure that they adhere to the other relevant access requirements for waste collection. In particular, dropped kerbs must be provided beside the designated collection point if they are not level with the roadway.

Developers will need to give consideration as to how residents can dispose of their waste when the bins have been moved to the collection point. If the refuse bins have been moved at a separate time to the recycling bins, there must be adequate arrangements in place at all waste storage areas to ensure that residents attempting to deposit non-recyclable refuse have the opportunity to do so without contaminating a recycling container.

3.10 Bulky Household Items and Reuse Rooms

Bulky Household Items

London Borough of Newham provides residents with a chargeable, on-request collection service for bulky household items. This service is available for residents living in flats but can only be provided if adequate measures have been included in the design of the development. If these measures are not in place, then the Council may not be able to undertake collections requested by residents, and the site managers will be required to make alternative commercial arrangements to have bulky items removed.

Residents can book special collections of bulky household items through the Council's website, and up to six items may be taken away through each booking. Details of the items needing to be collected are taken at the point of booking, and this information is issued to the relevant refuse crew.

The Council will only collect those items that have been booked for a special collection by a resident. Site managers cannot organise these collections with the Council. Any other items that are left in a

waste storage area without a booking having been made, or are dumped elsewhere on the development, will be the responsibility of the appropriate site managers to clear through a chargeable commercial arrangement with the Council or a private contractor.

Designated storage facilities must be provided for residents to deposit bulky waste items they have booked for a collection:

- For developments of 25 units or more, these storage areas must be separate from those containing normal refuse and recycling bins. If more than 3 stories high, a goods lift should be available.
- For developments of up to 25 units, the bulky waste storage area can comprise a designated space within a standard bin store. In such arrangements, the presence of bulky waste must not obstruct the refuse and recycling bins, and similarly it should be possible to safely remove the bulky items without the need to move any other bins. Collections will not be undertaken by the Council if the bulky waste causes an obstruction or is itself obstructed.

The total floor area provided for storage of bulky waste awaiting collection must equate to $10m^2$ per 50 households, with a minimum of $7.5m^2$. The storage area should be fitted with double doors. The storage room should also be located within 10 metres of an external access.

The guidance provided earlier on design, accessibility and signage for waste storage areas should also be followed for bulky waste stores. However, it is an additional requirement that bulky waste stores are covered, so that potentially reusable items are protected from the weather.

Appropriate signage must be installed to identify the designated areas. It is also recommended that signage be installed at other waste storage areas to provide information to residents on how to correctly dispose of bulky items.

The list below summarises the key features that should be incorporated into the design of a designated storage facility for bulky waste:

1. Should be located within 10 metres of an external access.
2. Total floor area provided must equate to $10m^2$ per 50 households, with a minimum of $7.5m^2$.
3. Should be fitted with double doors.
4. Located as close as possible (preferably within 10 metres) to a place suitable for a collection vehicle to stop.
5. Should be under cover or in a space that is not exposed to the elements.
6. Preferably located at street level.
7. Must be safe for users by being well lit.
8. Should be a secure room that is locked to restrict unsupervised public access.

Reuse Rooms

Major housing developments on site allocations should provide a well-managed reuse and circular economy room (a “reuse room”), where residents can leave items for other residents living in the building, or the general public, to collect and reuse and/or which residents can use as a space for tool and equipment sharing. Such rooms are also recommended for other developments, but they are only mandated on such major sites in the proposed new Newham Local Plan.

Reuse rooms may be separate to, or co-located with, the bulky waste storage facility, and may be used for items including furniture, electronics, books, and kitchenware. Reuse rooms should be separate from any internal communal amenity space or community facilities on site. It is also recommended that a larger floor area should be considered if the bulky waste storage room is to also act as a reuse room. Access to reuse rooms must be no more than 10m from a vehicle access point, so as to meet the requirements of BS 5906:2005.

Managing agents may wish to consider creating a physical, or digital, noticeboard for residents to advertise the item they wish to rehome. The use of apps, whether local messaging groups such as WhatsApp, Facebook or Nextdoor, or dedicated apps such as Freegle or Freecycle, may also be useful to advertise items for reuse, though access to these would need to be limited to development residents. Any form of advertisement would help to increase awareness and therefore increase the likelihood of items within the reuse room being rehomed.

Reuse areas are likely to require supervision in order to avoid the risk that they effectively become fly-tips. This may be via methods such as direct physical supervision with set opening times, passive supervision via, e.g., CCTV, and/or limited access via key codes/fobs. Developers/management companies must arrange for appropriate supervision and funding to cover this, whether from the developer's budget or management fees.

Managing agents must take necessary steps to track the length of time that items have been in the reuse room, and make arrangements for the removal and appropriate disposal of any items that have been there for a long time and are thus deemed unattractive to residents for reuse. This disposal must be paid for by the management agent's budget or otherwise through management fees.

The managing agent may wish to establish partnerships with local reuse organisations for the collection of reusable items, like furniture, from these communal storage areas which are not rehomed within a given timeframe (e.g., at the end of a year or each month). This would help avoid unnecessary waste and expense to the management agent in disposal of items unwanted within the development.

In the case where a reuse room is not considered necessary or feasible, the managing agent may wish to consider creating a 'buy, sell, swap' platform for residents to advertise items they wish to be rehomed. This could be a physical or digital platform. For example, Quintain Living, a managing agent with 10 blocks of flats in Wembley Park, has been working to support a local circular economy by establishing an online platform (in the form of a residents' app) where residents can advertise items for collection to other residents.

Tool and Equipment Store/Service

Reuse rooms may also be a useful location for residents to undertake simple repairs to items, and so provision of a tool and equipment store/service is desirable. As mentioned previously, a tool and equipment store/service are where residents can borrow tools or home equipment (including vacuum cleaners, power drills, etc.) for a couple of days or hours, thereby avoiding the need for residents to purchase these items themselves.

A tool store would be located on-site in a development, ideally within or near to the reuse room, or otherwise somewhere that is accessible to residents such as a foyer. This may work as a simple "library of things", whereby residents can take items and return them after use. However, given the high value of some items likely to be featured in a tool store (e.g., power tools), limitation of access and supervision of the room is likely to be necessary. This could be achieved through a variety of means including, but not limited to, direct physical supervision, passive measures (e.g., CCTV), limited access via key codes/fobs, a booking system and lockers with access provided to residents who have booked.[5]

In any case, management agents must make appropriate arrangements for the monitoring and management of tool stores, alongside the replacement of any missing/faulty equipment. This should be paid for by the management agent's budget, otherwise through management fees, or by implementing a hire fee. Any hire fees charged to residents must be appropriate and proportionate.

[5] This may work in a similar fashion to Amazon Lockers, whereby access to a specific locker is provided digitally to the resident who has booked the item. A similar, but more labour-intensive, alternative would be a conventional set of lockers with combination locks, with management agents providing codes to residents and changing them as required.

Alternatively, a tool and equipment service may be outsourced and run by a third-party organisation. Such services can also offer other useful and attractive services to residents (or prospective residents), such as communal printing, hire of non-tool items (e.g., projectors, e-scooters), and shops selling basic groceries.

For example, TULU is a company which offers residents the opportunity to hire items that they may only need on an occasional or one-off basis. TULU stores these items in lockers, and the items are available to rent by residents. In July 2023, Get Living partnered with TULU to introduce an in-building smart platform for residents at Victory Plaza and Portlands Place in East Village, Stratford. The TULU platform uses a section of wall space in the lobby, lounge or laundry room in its buildings, and offers 24/7 access to products, including vacuum cleaners, e-scooters, bikes, and VR headsets. The product selection is customised to the needs and wants of the building's residents, who can rent or buy products through the TULU app.

3.11 Management-Provided Internal Waste Collection Services

In large residential developments, it may be proposed by developers that the site management will provide an internal waste collection service for residents, either door-to-door or through use of smaller communal waste deposit points.

Developers considering doorstep collections must ensure that all relevant health & safety issues are addressed, including trip hazards and fire risk. In particular, developers must be able to demonstrate to the London Borough of Newham that they have consulted and received approval from the London Fire Brigade in respect of any such proposals.

A waste storage area must be provided on each floor, which includes provision for appropriate and separate containers for refuse and recycling and food waste recycling. The storage area must be well-lit, ventilated, include fire-suppression technology, and be designed to enable easy cleansing.

Any external waste storage areas, and the location where the waste will be presented for collection, must be designed in accordance with Section 3.

A written statement must be provided to the London Borough of Newham which demonstrates how the internal waste collection service will be operated and managed, and how the waste will be presented for collection.

3.12 Chute Systems

Designers of larger residential developments may consider the installation of chute systems to make it easier for tenants to deposit their waste. The London Borough of Newham does not recommend this type of system owing to the tendency of the chutes to get blocked, but if such a system is being considered then the following guidelines should be followed.

Waste chutes must be designed to fit in with the architectural aesthetics of the buildings and conform to BS1703 specifications for refuse chutes and hoppers.

The internal surfaces of the chutes should be completely smooth to minimise snagging of waste sacks and subsequent blockages.

Chute systems will only be permitted if there are two separate chutes provided at each installation point, to enable the segregation of refuse and dry recycling.

The dimensions of the chute should be such that all materials likely to be placed down the chute – such as cardboard boxes – can easily pass through the system.

The receptacles on each floor into which tenants deposit their waste must be clearly labelled to encourage recycling and minimise the risk of contamination. Poster or sticker designs should be presented to the Council's Waste Management department for approval. The use of Recycle Now iconography is recommended.

It will be the responsibility of the site management to cleanse and maintain chute systems, and clear any blockages which may arise. The London Borough of Newham will expect to see details of how this will be managed.

A fully enclosed and secured bin storage area must be provided at the base of each chute, designed in accordance with the requirements set out in Section 3.

Chamberlain bins are recommended for use with chute systems (see Appendix A for more information). However, Eurobins may also be used, and are recommended if it is expected that some tenants will deposit their waste directly into the containers without using the chutes.

Site management will be responsible for rotating the bins at the base of the chutes between the weekly collections to prevent overflowing of waste. Any overflows which do occur will be the responsibility of site management to clear.

Where bin stores are underground, bins must be brought up to ground level for collection by the site managers through the use of service elevators or ramps. The design and layout of the storage area should meet the appropriate requirements set out above. If access is through an underground car park, appropriate markings and parking restrictions may be required to protect access to the bin stores. It will be the responsibility of the site manager to move the waste containers to an agreed designated collection point at ground level, and return the containers to their storage area after emptying. A written statement must be provided to demonstrate how the movement of the bins to the collection point will be managed and undertaken. The plans must also show the parking location for any tractor and trailer that may be used by site staff for this purpose. Where a goods/service elevator is intended to be used to transport the bins to ground level, it must be large enough to safely accommodate a porter and the appropriate number of containers, and the width of the doors must allow free movement of the bins.

3.13 Garden Waste

Whilst developments of flats are unlikely to have gardens, resident participation in community composting is encouraged – see Section 7.3.

Section 4
Commercial & Mixed-Use Developments

This section provides information on the specific requirements for developments that include commercial units. The information given in this section should be read in conjunction with Section 3, and treated as additional to those which are set out in that section in relation to capacity, storage and access.

Student accommodation should be treated as a hotel under Item 5 of Schedule 2 Regulation 4 of The Controlled Waste Regulations 1992 Statutory Instrument No 588 and so, its refuse and recycling should be collected as commercial waste.

4.1 Service Provision Overview

The London Borough of Newham undertakes regular collections of residential waste, details of which have been given in the previous sections. For standard refuse and recycling collections there is no charge levied by the Council, except for the purchase of bins for new developments.

However, the arrangements for commercial waste are different, as businesses do not receive a collection service through their Business Rates. The Council offers a commercial waste collection service, with a range of container options and collection frequencies to suit all types of premises. Businesses can also choose to take out a contract with a fully licensed private waste collection firm.

In the future, food waste collections for businesses will also available. Please contact our commercial waste team to discuss your options: commercial.waste@newham.gov.uk

4.2 Design of Waste Storage Facilities

All developments should provide sufficient storage capacity for all waste arisings, whether commercial or residential in origin.

The design and layout of waste storage areas or chambers will be consistent with that for purpose-built flats, so architects should follow the guidance given in Section 3.

Storage facilities for commercial waste should be demonstrated at planning stage regardless of whether the final Use Class has been decided. It will not be sufficient to say that the store will be incorporated into the plans once the final use is known.

Commercial storage should ideally be shared space and not in individual units – either in a central, separate commercial waste store or if individual units, at the front of unit.

Consideration should also be shown for internal segregation of refuse, recycling and food.

4.3 Segregation of Commercial and Household Waste

External storage areas for waste on mixed-use developments must be segregated, so that domestic and commercial waste bins are in separate, secured areas.

Access to the domestic bins should only be possible for residents of the development and site management. It is also good practice to secure the commercial bin storage area to prevent residents from misusing these for disposing of household waste. The London Borough of Newham reserves the right to refuse to undertake domestic waste collections from non-segregated storage areas.

Suitable arrangements for segregating the storage of bulky household waste items will also need to be made.

All storage areas must be easily identifiable through the use of clear and appropriate signage. It is also recommended that residents and businesses are provided with leaflets or information sheets explaining which waste storage areas to use.

In developments where on-site businesses will be arranging individual contracts with waste collection providers, it will be necessary to ensure there is sufficient space available for each commercial unit to have its own bin or allocated area for storage.

On developments with multiple commercial units, landlords or site managers may choose to include the cost of waste collection in the unit rental price. This will enable a single contract to be arranged between the landlord/site manager and the Council or a licensed waste collection provider, and remove the need for individual bins/storage areas to be provided for each business.

Architects and developers should ensure that provisions for waste storage and collection are compatible with the varying container and vehicle types used by different waste contractors. If it is known that a particular provider is the intended contractor for a site then that company should be consulted with at the earliest opportunity.

4.4 Waste Storage Capacity

The guidance given in Section 3 should be followed in relation to the required capacity for domestic refuse and recycling.

The quantity of waste generated on commercial premises can vary significantly, depending on the nature of the business occupants and the frequency of collection they secure through their waste contract. Architects and developers should identify the types of businesses intended for any units proposed on their developers, and ensure that adequate storage capacity is provided for the likely quantity of waste generated. Further guidance for some types of premises is given in British Standards BS 5906:2005.

4.5 Waste Collection Frequency

Residential refuse collections are undertaken by the London Borough of Newham on a weekly basis, with recycling services carried out every week or fortnight.

Collection frequencies for commercial waste will be dependent on the space available, the amount of waste being generated and the particular contractual arrangements. However, where commercial units will be producing food waste, developers should be aware of the increased likelihood of odours. A twice-weekly collection service is recommended for such businesses, and should be allowed for in the design of the waste storage and access. Premises which generate a significant quantity of waste may also benefit from a twice weekly collection to reduce the need for storage space.

4.6 Recycling

The Waste Regulations 2011 require “separate collections” of paper, metal, plastic and glass to be in place for businesses. Developers should ensure that businesses and waste contractors are able to

meet these requirements through the design of waste storage and collection facilities at new developments, including storage space within the business premises.

Mixed-material recycling is in operation for household waste, but such schemes may not be appropriate or permissible for businesses. As such, architects should consider the need for separate bins for each material for business premises.

Medium to large hotels and restaurants must be designed to include separate storage provision for waste cooking oil.

4.7 Compactors for Business Waste

In locations where the space available for storing waste is limited, it may be appropriate for developers to consider using compaction systems for commercial waste to reduce the volume of the waste being generated on site. There are various types of compactors available to suit different types and sizes of development.

Developers should note that the London Borough of Newham does not offer a compacted waste collection service for portable skip, rotary or in-bin compactors. Alternative arrangements would need to be made with a private contractor to have the compacted waste collected. Residential waste should not be compacted for collection through a private contractor as this does not represent best value for residents. The intended service provider should be consulted at the earliest opportunity in the planning process to ensure that their requirements for container storage and access are met.

Section 5
Underground Waste Storage Systems and Automated Vacuum Collection Systems

The use of waste storage containers in underground facilities and automated vacuum collection systems can help architects and developers to provide more space at ground level for other features and will often add to the aesthetic appeal of a development.

The use of either system can reduce the physical on-street space required for waste and recycling storage and collection as an above-ground deposit point feeds directly into large underground storage containers.

Underground waste containers can be used for communal buildings and in public open spaces. All that is visible to the user is the container top that has a “litter bin” or other appropriate type of chute for users to place recyclables into the containers. The upper surface of the container top should be of a non-slip material. The container is fitted with bottom discharge doors and a specially equipped vehicle is often required to handle the containers.

Underground systems can vary from basic systems which involve standard waste containers being stored in a section of a basement car park to more advanced systems involving bulk storage containers lifted out using crane attachments on refuse vehicles. There is a further option to install bin-fill telemetry to aid monitoring and improve collection efficiency.

On the other hand, Automated Vacuum Collection (AVAC) systems use underground pneumatic pipe networks to move waste from ground-level deposit points to a single collection station elsewhere on the development.

5.1 Underground Waste Containers – Overview

The London Borough of Newham will be able to service standard underground waste storage systems following the acquisition of a dedicated specialist collection vehicle. See Appendix B for the vehicle specifications.

The containers must be of the “stillage” type, *not* “vacuum” type and they must use the “2-hook” or “double hook” lifting system.

Architects and developers that are interested in using such a system at a new site should consult with the Council’s Waste Management department at the earliest opportunity.

If an underground waste container system is chosen, it must be the only system on the development. Mixing it with an 1100l bin system is not permitted as it doubles the necessary vehicle journeys.

These types of systems require the construction of underground concrete chambers, varying from 1.5m to 3m in depth. These are used to store removable bulk waste containers, which are normally available in $3m^3$, $4m^3$ and $5m^3$ sizes. The largest size of $5m^3$ should be used or justification provided as to why this is not possible. Waste is deposited into these bulk containers through receptacles at street level, which come in a range of designs but are often around the size of a street litter bin. These receptacles are attached to a floor-plate over the chamber and bulk container, which together provide the only components that are visible to the public.

The number of bins required should be calculated using the same method described in Section 3.3.

The containers are emptied by a vehicle fitted with a telescopic crane, which lifts the bulk container out of the concrete chamber. In some systems the receptacle, floor plate and bulk container are one unit and are lifted out in their entirety, whilst in others the floor plate is attached to the chamber by hinges along one side so it can be opened to reveal the bulk container underneath. The concrete chamber is fitted with a safety platform, which rises up to street level as the bulk container is lifted out to reduce the risk of operatives or pedestrians falling into the chamber.

The bulk container is lifted above the vehicle for emptying, with hooks on the crane being used to operate a mechanism that opens the bottom of the container so that the waste can drop out. Once emptied, the bottom of the container is closed before it is restored it to its normal position in the chamber.

Any underground waste storage needs to be maintained by the Management Company to ensure that they remain fully functional and repairs should be carried out in a timely manner. The Management Company should ensure that the underground waste storage bins are free of excess waste, and that access is clear. Underground waste storage bins that are not functioning should be clearly marked as such. Only working underground waste storage bins will be emptied by the crews. If the bins are unable to be emptied due to not functioning properly, excess waste or parked vehicles then the Waste & Recycling team will not return until the next scheduled collection day. Should a return before that be required this will be a chargeable service.

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5.2 Underground Waste Containers – Design Guidelines

The underground storage chamber must be housed in a concrete casing. The chamber should be 100% waterproof, and appropriate design features must be incorporated to eliminate water ingress from ground level. Brushes should be fitted where necessary to prevent detritus from entering the chambers. In areas where ground stability is reduced, such as where a high water table is present, the chamber must be set or secured on concrete stilts to prevent any movement.

The chamber must be fitted with a rising safety platform, which should be made from galvanised steel, able to carry a load of at least 150kg, and provide a complete seal for the shaft below when raised.

The removable bulk container should be manufactured from galvanised steel, and be fully sealed through welded joints to prevent leakage or ingress of liquids. It should feature a bottom-opening trap door to allow emptying of container, operated through hook systems on the collection vehicle's lifting crane.

The floorplates and receptacles at ground level must be designed to fit in with the surrounding built environment, offer a range of aperture options to target different material streams, provide sufficient opportunities for branding/labelling, and be accessible for elderly and disabled residents.

It is recommended that the fixed floor plates and receptacles are protected from vehicle damage through the use of bollards or other barriers.

The receptacles must be fitted with an access control feature to prevent misuse of the waste containers for non-domestic waste. The site managers should ensure that the necessary keys, fobs or swipe-cards to use the system are only provided to eligible residents.

It is recommended that the bulk containers be fitted with remote fill level alarms or indicators, to enable efficient management and operation of the collection services, and to reduce vehicle movements at developments where these underground waste systems are installed.

The containers should be clearly labelled either as waste or as recycling using Recycle Now iconography and Newham's branding. These should be approved by Newham Council prior to

application. The containers should be labelled both on the lids and their sides so the waste type can be clearly identified from all angles.

The aperture at ground levels for users should be a hatch and rotating drum system which limits the size of waste users can put in. Internally in built refuse and recycling systems should be provided which match the size of this drum.

Developments should have internal storage with space for spare Eurobins to be used in emergencies e.g., broken bins.

Developers should consider providing secure access to prevent use by non-residents i.e., the use of key codes (preferred by the council – see Section 3.8), ID-cards and fobs are common. Hatches should also be locked to similarly prevent improper access.

5.3 Underground Waste Containers – Site Location

The deposit point must be located within 30m of a unit or a means to transfer waste from an intermediate deposit point to the collector should be provided.

A safe and accessible stopping point must be available for the collection vehicle to service each underground bulk waste container. This should be a maximum distance of 6m from the pivot point of the crane and a minimum distance of 3m from either side of the vehicle. It is not possible to service sites from the front or back of the vehicle, so it must be able to pull up alongside every site.

Leg stabilisers on the vehicle are used during collection. These can protrude from 1.5m up to 2.5m on each side, and must be able to rest on a hard and even surface that is able to withstand loading of up to 4 tonnes. Unsuitable surfaces include, and are not limited to, sand, plywood and bridging boards.

Sites should be located on private land, off the public highway. In a case where a developer wishes to place a site on land next to the public highway, and have the collection vehicle stop on that road to service the site, then the following points will need to be taken into consideration:

- Sites should be at least 15m from any highway junctions, and well away from any emergency access. Sites will not be permitted beside Traffic Sensitive Roads or bus routes.
- The collection vehicle must be able to access the site, as per the requirements set out above. The developer must be able to demonstrate that appropriate measures will be in place to prevent access being blocked by parked cars, and if necessary provide alternative parking spaces if any existing ones need to be removed.
- The developer will be required to undertake and fund all necessary surveys, planning and remedial works to strengthen the footway around the site so that it is able to bear a load of 26 tonnes. In addition, a retaining wall will be needed to protect the structural integrity of the pavement, if a site is being installed directly next to it.
- The bins should be located in an area where the pavement is wide enough for pedestrians to be able to pass by during the collection. This will require a minimum clearance of 1.5m from the side of the bins. If this is not possible the developer will be required to demonstrate that pedestrian safety can be maintained during collection, proposing an alternative route for pedestrians while the footway is blocked. In addition, the presence of a staff member from the managing agent of the block may be required during collections to assist in keeping pedestrians away from the collection vehicle, so this should be factored in to the estate management plan. Access must be completely clear, as it is not safe to lift bulk containers over any parked cars, other obstructions or where the public will continue to have access during collection. There should be a minimum clearance space of 3 metres from the baseplate. It must be possible for the collection crews to cone-off and close public access to an area around the vehicle, and between the vehicle and the bin chamber.

Overhead working clearance of at least 15m is required at all sites, and installations must not be located beneath any potential obstructions such as trees, balconies, walkways or cables. Installations must not be within 5m of any overhead power line.

During collection operations it is not possible to move the vehicle until the crane has been returned to its storage position and locked, and any stabilisers have been raised. As such, installations must be positioned so that the stationary vehicle will not cause an obstruction to any emergency access or busy roads/pedestrian routes.

It is the responsibility of the developer to locate bins based on the number and size of units. Where containers are found not to be sufficient for storage of waste it will be the responsibility of the site management team to communicate with residents and put alternative plans in place for other bins to be utilised.

The sites must be located so that the vehicle can service as many units as possible from one stopping location to lessen vehicle movements.

5.4 Underground Waste Containers – Vehicle Access

Architects and developers should take into account the details given in Section 6 in relation to access. However, for underground waste storage systems there will be additional requirements, as a specialist vehicle will be used to service the sites. See Appendix B for details of the vehicle type used by LB Newham to service underground waste storage. Developers should discuss with the council regarding any other vehicle access requirements at the earliest opportunity.

5.5 Automated Vacuum Collection Systems – Overview

AVAC systems greatly reduce the requirements for waste storage infrastructure to be distributed across large sites, and also allow architects and developers to consider reducing the clearances and turning circles of roads across the development as access for waste collection vehicles is generally not required (except at the collection station). However, the maintenance requirements of this type of system will need to be appropriately considered, particularly with regards to residents' service charges.

In order to realise the full benefits of AVAC systems, the waste is generally compacted at the collection station so that the size of that facility can be kept to a relative minimum. However, some facilities, such as the Envac system in Wembley Park, do not compact the waste.

The requirements for AVAC systems will be very specific to each development, and any developers considering this kind of system should consult with the Council's Waste Management department at the earliest opportunity.

5.6 Automated Vacuum Collection Systems – Design Guidelines

Deposit points for all material streams should be clustered together to allow residents to dispose of all waste streams at one location. Developers should also consider the siting and design of a AVAC system to mitigate noise and odour.

Developers and managing agents should ensure that there is clear and consistent signages in multiple languages to indicate recycling and waste segregation requirements with colour coding that is used within the home and elsewhere within the development.

Developers should also provide secure access to prevent use by non-residents. Use of key codes (preferred by the council – see Section 3.8), ID-cards and fobs are common.

5.7 Automated Vacuum Collection Systems – Site Location

Waste and recycling deposit points should be sited in convenient locations to allow for residents to easily access the collection points on the way to and from the building as part of normal day to day activity (i.e., avoid locating them where residents must make a special trip to the deposit points).

5.8 Automated Vacuum Collection Systems – Vehicle Access

Architects and developers should take into account the details given in Section 6 in relation to access. The collection station will need to be located in an easy to access location and be accessible by refuse collection vehicles.

5.9 Recycling and Food Waste

There must be a minimum of three bin types per location; one for refuse, recycling and food waste.

Recycling must be integrated into all systems, through provision of dedicated underground bins or AVAC chutes for mixed recycling or another appropriate solution. This must enable the same recycling services to be provided as are available to other residents (see Section 3), but should also enable flexibility in the event of future developments within Newham's recycling collections.

Although AVAC systems can be suitable for food waste, developers may wish to use ground level 140 or 240l containers when food waste collection in Newham commences in order to avoid contamination in the chutes. These can be stored internally or externally inside discrete metal housings.

Developers should consult with the Council's Waste Management department at the earliest opportunity.

5.10 Bulky Waste Items

Underground waste systems and AVAC are not appropriate for disposing of bulkier waste items, including large pieces of cardboard, furniture and electrical appliances.

Architects and developers must provide an alternative storage location at all developments where underground waste systems or AVAC are in place, in order for residents to have somewhere to dispose of bulkier waste. Such locations should meet the requirements of Section 3.1.

It shall be the responsibility of site managers to clear away any bulky items or other waste left beside the street-level receptacles, including at any sites located next to the public highway.

5.11 Non-Household Waste

As noted above, the underground waste storage and AVAC systems provided for residents must be dedicated solely for the disposal of household waste and recycling. However, developers may look at providing separate underground installations for the use of businesses, particularly in developments where a standard waste collection system for commercial premises would significantly impact on landscaping and local aesthetics. There will be a number of considerations for developers looking at this sort of approach.

Site managers or landlords would need to hold a single contract for the collection and disposal of commercial waste from the development, with the costs being passed on to the businesses by an appropriate recharging mechanism.

The commercial waste contract would need to be held with the London Borough of Newham, or a private contractor able to service underground waste storage or AVAC systems.

Some types of commercial waste may not be suitable for disposal in underground storage or AVAC, either because of bulk or excessive weight.

Underground waste storage or AVAC may not offer sufficient flexibility to enable businesses to exploit opportunities in the market to segregate higher-value materials for specialist recycling collections.

5.12 Repair, Maintenance and Management

It shall be the responsibility of site managers to arrange for the repair and maintenance of all underground waste storage or AVAC systems in their developments.

Site managers shall also be responsible for keeping the installations and the areas around them clean and clear of other waste. This includes the removal of any waste or water from inside the bin chamber.

Maintenance and cleansing of the bulk of underground waste storage containers, safety platforms or chambers will require the bulk containers to be lifted out. The London Borough of Newham may be able to provide assistance with this if there is available capacity within the weekly schedule for the collection vehicle, and an appropriate charge would be levied for this service. However, it is recommended that site managers look to appoint a cleansing and maintenance contractor that is able to undertake the lifting of the bulk containers itself as part of its contract, ensuring that all the necessary health and safety considerations of doing so are adequately addressed.

Section 6
Vehicle Access

Vehicles used to collect waste and recycling will be amongst the largest and heaviest needing to access any development. Further information about the dimensions and other specifications of waste collection vehicles used by the London Borough of Newham, please see Appendix C. Developers should be aware that other private contractors undertaking collections of commercial waste from developments may use larger vehicles.

In order to ensure that all refuse and recycling collections can take place unimpeded and without the risk of any damage to the vehicles, paving or other fabric of the sites, developers must ensure that all access roads, including non-adopted, private roads and driveways meet the following requirements. Failure to do this could result in the collection vehicles being unable to gain access and collections not being made.

6.1 Roadway Strength

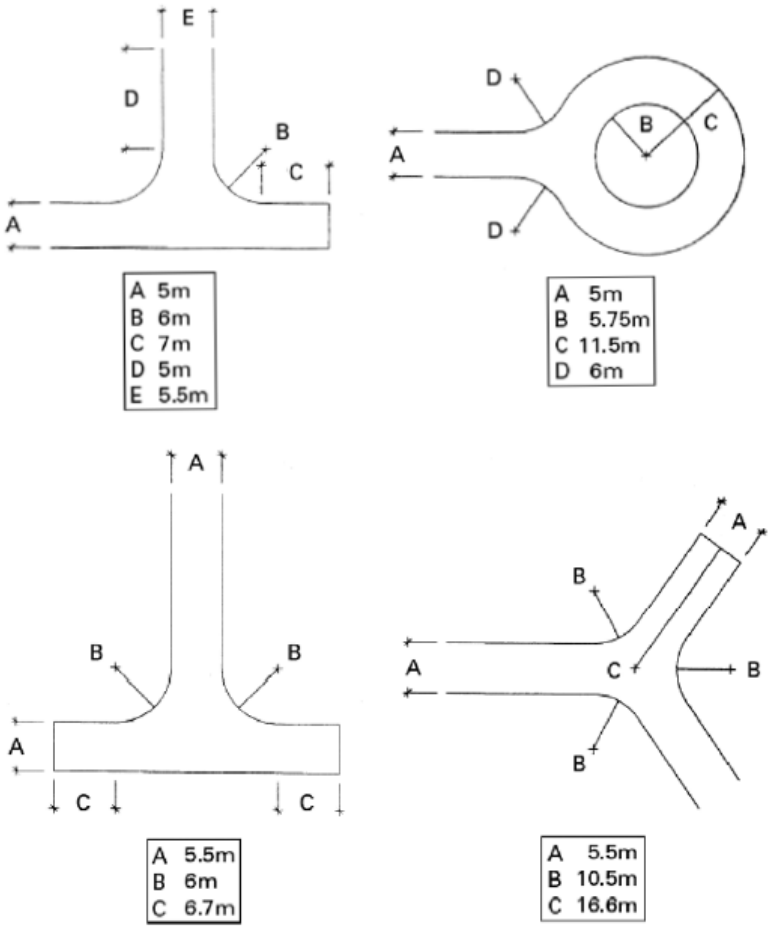
Roads should have foundations and a hard-wearing surface capable of withstanding a fully laden waste collection vehicle of 26 tonnes gross vehicle weight, with a maximum axle weight of 11.5 tonnes. Any ironworks situated in the roadways should also be capable of withstanding the loads indicated. Non-adopted and private roads also need to be able to withstand these loads.

6.2 Roadway Layout

Roads should have a minimum width of 5m. Pinch points, such as archways or gates, should give a minimum clearance of 3.7m width, and additional allowances must be given if vehicles are required to approach from an angle.

Any part of a building through which a waste collection vehicle passes must have a minimum clear height of 4.5m, to allow for overhead fixtures and fittings.

If a turning space is necessary, the road layout should permit a turning circle of 17m kerb-to-kerb, or 20.3m wall-to-wall.



Any locations where the gradient of the roadway changes must be designed to allow for the overhang of the lifting equipment at the back of waste collection vehicles.

6.3 Manoeuvring

Swept Path analysis should be provided, with 300mm buffer zone envelopes, using Vehicle Tracking to make it more realistic with a reasonable margin of error, knowing drivers are not going to be perfect. The closer those envelopes are to curbs, signage, or building corners, the smaller the margin of error is for the driver. Creating the buffer or offset will help ensure vehicles can successfully navigate the path. Allowing you to create a better and safer design.

Where possible, waste collection vehicles should be able to get into the site, off of the road, to collect. The vehicles should not be required to reverse more than 12m, and then only in exceptional circumstances (i.e., if a 20.3m turning circle cannot be accommodated). If pedestrians also use access routes where waste collection vehicles will be required to reverse, an additional raised footpath must be provided. Waste collection vehicles must never be required to reverse up or down a slope/ramp.

Where possible, developers should design road layouts so that waste collection vehicles are not required to reverse in from or out to the public highway.

Vehicles undertaking collections should be able to stop for loading in a safe and legal position where they will not obstruct other traffic, pedestrians or access.

Front and rear overhangs should not have to pass over pavements during manoeuvres.

Appropriate measures must be incorporated into road layouts to control unauthorised parking of vehicles that would prevent access by the waste collection vehicles and staff. Developers should ensure that sufficient car parking is provided in order to prevent such problems.

6.4 Permitted Access

Access to storage areas should be possible from 06:00 to 22:00, Monday to Sunday.

Where access to a property is controlled by electronic gates or other security barriers, householders or their agent need to accommodate the arrival of the collection crews and provide timely entry. This should ideally be possible without the need for the crew to know an entry code, use a swipe-card, or carry any fob/key other than one of a standard 'Fire Brigade' pattern. If access is not permitted within five minutes of arrival, the collection(s) will not be made and will take place at the next scheduled collection day.

Where development of new properties is still taking place and roads are not yet adopted, but residents are in occupation, Newham Council will carry out a risk assessment to determine whether it is safe to enter the site to make collections. Where it is deemed unacceptable to make collections due to a health and safety risk, the Council will work with the developer to agree a temporary communal collection point. The waste collection crews will only make collections from this location once a satisfactory risk assessment is in place. The developer will be responsible for informing householders about the temporary arrangements. It will be the householders' responsibility to ensure that their waste/recycling is in the temporary area ready for collection by no later than 06.00 hours on the scheduled collection day.

Where access is not permitted to gated properties or properties that can only be accessed from an un-adopted road, householders or their agents will be required to present their bins outside the gates or at the edge of the public highway for collection.

6.5 Turntables

Architects and developers are strongly encouraged to enable access to bin storage or presentation areas via standard road layouts and without the need for complicated manoeuvring.

Where the use of turntables is being considered to resolve access problems on constrained sites, architects must consult with the Council's Waste Management department at the earliest opportunity. Use of such technology is not recommended owing to the increased complexity and the impact that equipment failure will have, but where it is to be employed the following key points will need to be noted:

- The turntable must be designed to withstand significant off-centre loading from a 26-tonne vehicle.
- To minimise risk of injury and damage to equipment and property, the diameter of the turntable must be sufficient to fully encompass the footprint of the vehicle, including the rear overhang.
- Site management staff will be required to greet the refuse collection vehicle and assist in manoeuvring it into the correct position on the turntable. Site staff will then be required to operate the device, and provide appropriate marshalling instructions to the driver when it is safe to move the vehicle again.
- In the event of non-availability of the turntable, site staff will be required to present the bins at an alternative accessible location for collection. The bins may therefore need to be towable, and an appropriate alternative site allocated (with dropped kerbs in place if necessary).

- The layout of the turntable area must enable the refuse vehicle to be able to use turning manoeuvres to exit the area if the turntable fails mid-turn. These manoeuvres should be analysed through a swept-path analysis, but it is permissible for this to involve a multiple-point turn as it will only be required in exceptional circumstances.
- The turntable should be regularly serviced to minimise the risk of failure.

Section 7
Alternative Waste Management Technologies

The generation of waste from new large-scale developments could have a significant impact on the local environment, and will place an additional burden on the existing collection, treatment and disposal infrastructure in Newham and East London. The requirement for adequate waste storage space and suitable access routes for collection vehicles will also reduce the flexibility that architects have in making the best use of the land available.

The London Borough of Newham will expect to see a detailed strategy/plan for all new development sites, setting out how it is proposed to manage household and/or commercial waste being generated across the entirety of the development, in accordance with the guidelines in this document.

For larger developments, and particularly those comprising buildings of several storeys, the production of this waste management plan is likely to emphasise the scale of the problem that architects will face in providing enough on-site storage capacity for a large number of dwellings. The requirements for this provision will put additional pressure on land set aside for car parking, could potentially reduce the scope for co-locating an optimal number of income-generating commercial units, and may also have an impact on the size and attractiveness of any proposed communal garden spaces.

The generation of waste from new large developments will represent a significant addition to the total municipal waste arisings within Newham. The Council's existing collection infrastructure is already operating at full capacity, and investment in the purchase and operation of new vehicles will therefore be required in order to service new large developments. The London Borough of Newham may seek a financial contribution from developers to cover these costs where appropriate.

Many of the problems associated with waste collection and storage for large developments can be negated through the use of alternative on-site technologies to treat waste generated by the occupants. The use of such technologies can significantly reduce the need to allocate as much space for waste storage, minimise the noise and disruption caused when waste collections are undertaken, and can help new developments to achieve a higher environmental performance standard.

The London Borough of Newham strongly recommends that alternative waste technologies are investigated for all new large-scale developments. Some examples of technologies that are already in use elsewhere in London, the UK and abroad are given below, and developers may also wish to refer to the guidance given in Section 5 in relation to alternative on-site waste storage systems.

There are a number of existing and proposed technology options for managing and treating waste on site. Developers are encouraged to ensure that all appropriate options have been investigated, and should also consider the potential of trial projects as a means of attracting external funding to assist with initial capital costs. All on-site thermal treatment technologies will be subject to appropriate regulations and will require suitable environmental permits.

7.1 Pyrolysis

Pyrolysis technology utilises heat inside a pressurised container to break waste down into a fine carbon dust, which can then be flushed into the existing sewerage network. The process does not break down any metal or glass elements in the waste, which means that these can be extracted for recycling following the pyrolysis treatment. The process results in the production of a combustible gas

("syngas") and/or biofuel, which can be sold or burned on-site for heat/electricity. A number of UK councils, including the London Borough of Wandsworth, have considered or have trialled pyrolysis technology to treat non-recyclable waste.

7.2 Micro-CHP (Combined Heat & Power)

Waste is a valuable resource that can be used to generate power, and technology that achieves this at a large scale has been in use for decades in the form of energy-from-waste 'incinerators'. However, small-scale versions of this technology allow for this to be brought to a community level, where residents and businesses can directly utilise the energy derived from their waste, and in so doing often get much lower prices for their electricity.

These types of facilities can be connected to a district heating network, in order to make use of the waste heat produced through the power generation. This heat can be piped to residential and commercial units, replacing traditional individual boilers in the production of heat and/or hot water. This is known as 'combined heat and power', or CHP.

Small-scale CHP systems that use waste as a fuel bring many benefits, including cheap supplies of heat and power for occupants, reduced requirements for waste storage and collection, and notable reductions in the environmental impact when compared to traditional developments. These can be attractive prospects for potential tenants, increasing the value of properties and commercial units on new developments.

CHP technology is not yet very common in the UK, but there are numerous examples from the European mainland of how it can be integrated into new and existing developments at various scales.

Likewise, whilst district heating networks are not yet common in the UK, they are gaining popularity and there are a number of new networks proposed in London. In Newham, this is particularly relevant to the Royal Docks area.

Developers should discuss with the council at the earliest opportunity if CHP is being considered in a development.

7.3 Community Composting

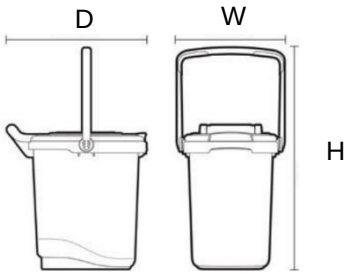
Home composting provides one way to reduce waste collected in the Council system and to manage this waste sustainably, but this is often not feasible or relevant in flatted developments. Where practicable, the London Borough of Newham encourages developers to make arrangements to facilitate communal/community composting to serve the needs of flats or dwellings that do not have access to a private garden. The main considerations are that the composting bins are screened, that the area is purpose built and clearly signposted, and that ongoing management and maintenance is provided. In all cases the composting scheme must achieve full compliance with the Animal By-Products (Enforcement) (England) Regulations 2013, and if applicable it must be registered with the Environment Agency to have either a waste management licence, an environmental permit, or the appropriate exemptions.

Appendix A
Container Dimensions

Food Waste Containers

Note that external food waste containers are available in a 23l size only.

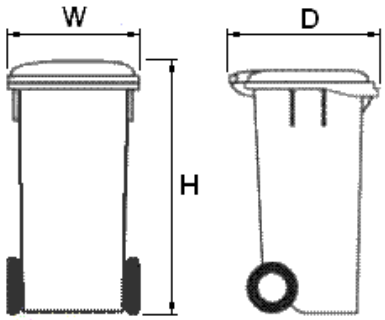
Capacity	H (mm)	D (mm)	W (mm)
23-litre	630	400	320



Two-Wheeled Bins

Note that recycling bins are available in 240 and 360-litre sizes only.

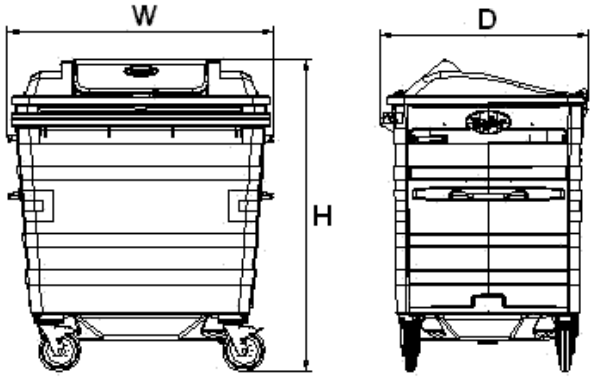
Capacity	H (mm)	D (mm)	W (mm)
180-litre	1065	646	545
240-litre	1085	730	570
360-litre	1090	850	620



Eurobins

1100-litre is the standard (and recommended) Eurobin container.

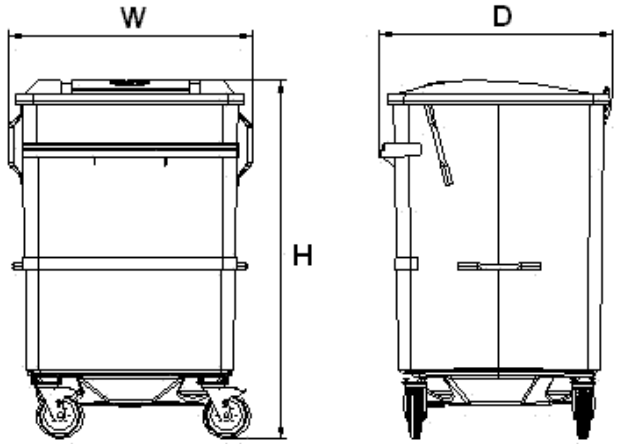
Capacity	H (mm)	D (mm)	W (mm)
660-litre	1310	720	1250
1100-litre	1370	980	1250
1280-litre	1430	985	1260



Chamberlain Bins – for chute rooms only

940-litre is the standard (and recommended) Chamberlain container.

Capacity	H(mm)	D (mm)	W (mm)
720-litre	1410	770	1020
940-litre	1500	970	1020



Note that Chamberlain bins are only suitable for use where refuse/recycling chutes are installed. Eurobins should be used at all other locations.

Appendix B
Vehicle Dimensions and Specifications

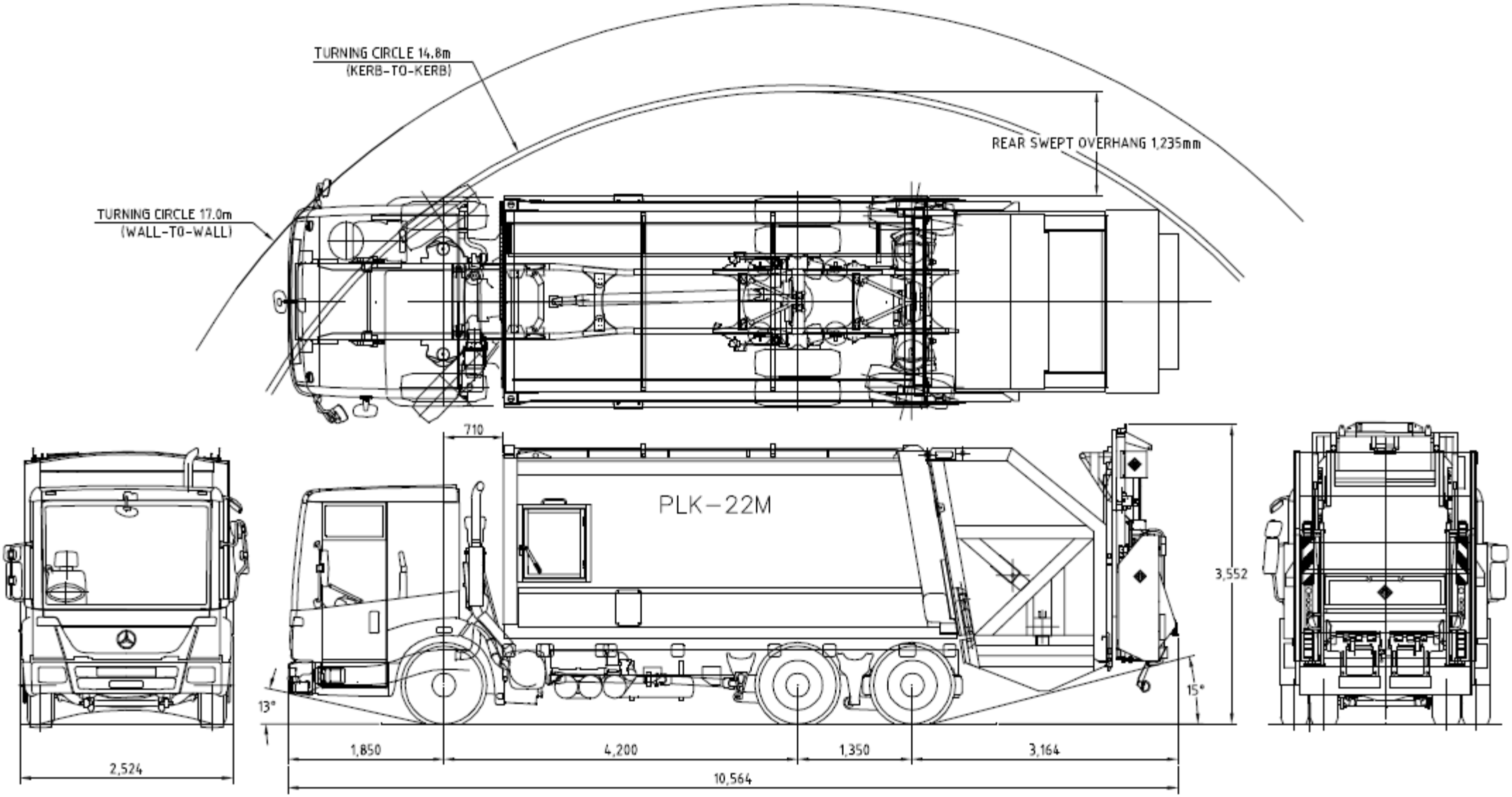
This section provides information on the standard vehicles used by the London Borough of Newham to collect both refuse and recycling, MERCEDES ECONIC 2630L with rear steering. A schematic of the vehicle is provided on the following page.

Vehicle	Regular collections	Underground bin collection
Drive	6x2 rear-steer	6x2 rear-steer
Overall width	2524 mm	2550 mm
Overall length	10564 mm	10658 mm
Overall height	3552 mm	4152 mm
Wheelbase (axle 1 to axle 2)	4200 mm	4200 mm
Rear bogie spread (axle 2 to axle 3)	1350 mm	1350 mm
Rear swept overhang	1235 mm	NA
Gross Vehicle Weight	26000 kg	26000 kg
Maximum axle load	11500 kg	11500 kg
Approach angle	13°	NA
Departure angle	15°	NA
Turning circle between walls	17.0 m	15.4 m
Turning circle between kerbs	14.8 m	NA

Architects and developers of sites where commercial units will be located should be aware that private waste contractors use a range of vehicles, which can sometimes be larger or have different manoeuvrability concerns than those specified below. In these circumstances, developers should consult with the intended private contractors to establish the specifications for other vehicles that may need to access the site. **It is recommended that a 6x4 rigid vehicle is modelled in these circumstances, as it is an industry standard.**

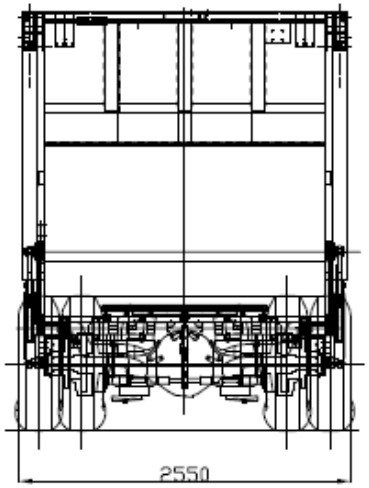
The details of the vehicle that will service underground bulk waste containers have not yet been finalised. Designers of sites where this system are to be used should consult with the Council's Waste Management department.

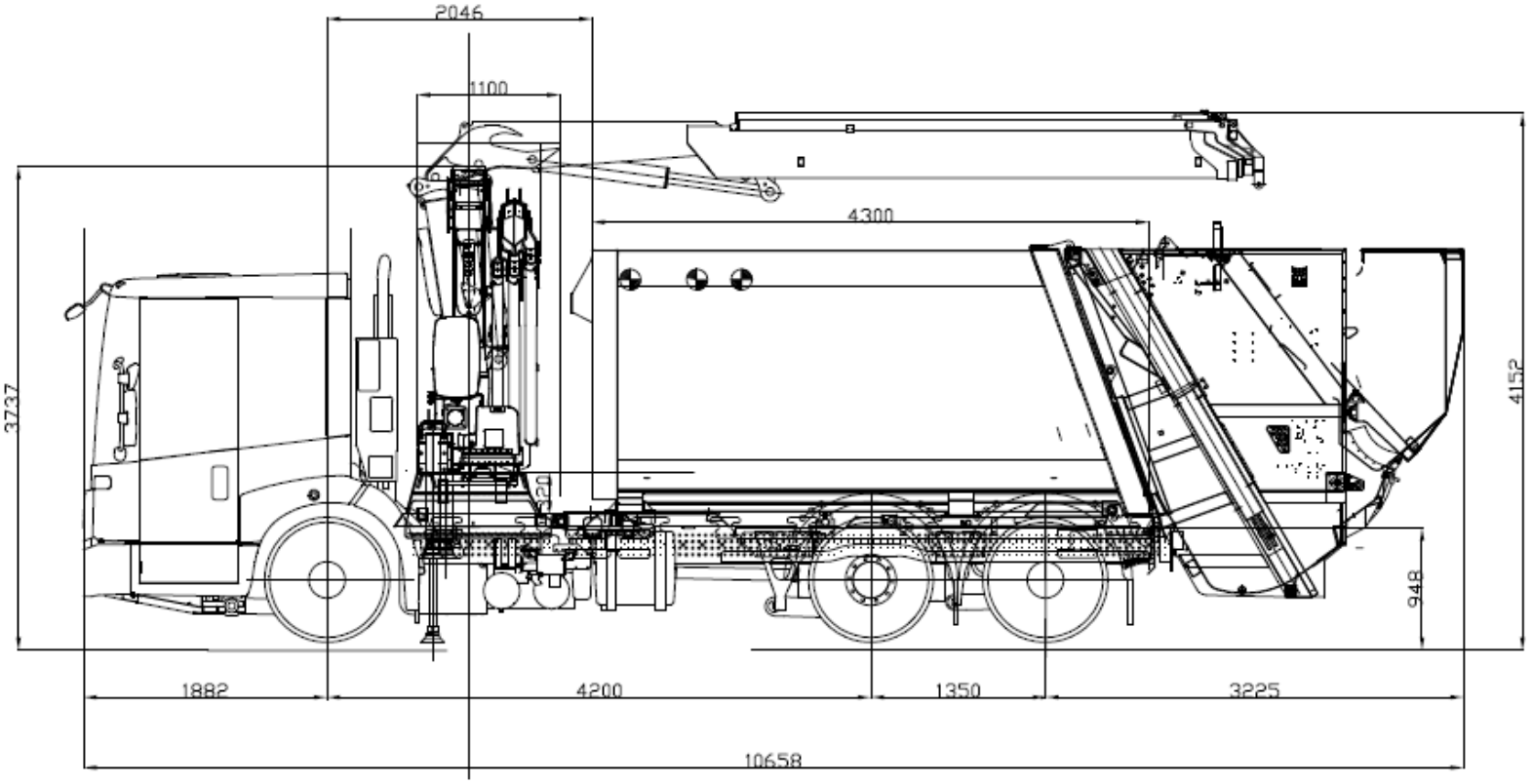
Skip vehicles may need to access and serve some locations. Developers should be aware that, while most of these vehicles are smaller than standard waste collection trucks, they may require more vertical clearance to operate safely, particularly in locations where skips are to be raised and lowered.



CHASSIS:	MERCEDES-BENZ	BODY:	POWERLINK 22M
MODEL:	ECONIC EURO 5 2629LL 6x2 REAR-STEER	HOIST:	OTTO CONTINENTAL
CAB:	4 MAN CREW		
WHEELBASE:	4200mm + 1350mm		

Newham London





FARID Industrie S.p.a.

FARID mod. T1M-17UG (l=4300mm) (Gru Fassi F165A)
on Mercedes Benz Econlc 2635 6x2 RS wb. 4200+1350 mm

Appendix C
Bin Towing Operations

This section provides basic information on bin towing operations, to help assist architects and developers to design layouts that are appropriate.

Site managers will be responsible for all towing of bins from storage areas to agreed presentation points, and as such must ensure that these operations are compliant with health and safety guidelines.

Bin manufacturers can provide more detailed information on how to use their towable products safely, and can also provide bespoke advice, guidance and training where necessary.

Site Layout

The towing of bins should be considered a vehicular operation. As such, the surfacing, gradients, sightlines etc. on routes where bins will be towed should be appropriate for cars. There must be dropped kerbs with a gradient no steeper that 1:12 wherever bins are to be towed between a pavement and roadway.

Where bin towing is to take place along routes used by pedestrians, pathway widths must be sufficient for there to be ample clearance between a double-buggy and the tug/bins.

Bins

The Council recommends the use of galvanised steel bins with removable towing links. There are some models of bins with retractable towing attachments, but in the past these have interfered with the lifting equipment on the collection vehicle, resulting in the Council refusing to empty them, so it is recommended that such bins are not used.

Towable bins require modifications over standard Eurobins, including strengthening of the sides and bases, heavy-duty castors with directional locks, and towing attachments installed on either end. Bins should also have locks for the lids, so that they can be secured before being towed.

A regular inspection and maintenance programme should be in place for towable bins to ensure the towing links, attachments and castors remain in a safe condition.

Towing Links

The links for towing the bins are supplied separately. The bin-to-bin links are designed to fit into the ‘hitch’ attachment at one end and the ‘eye’ attachment at the other, providing a secure connection between the containers. The bin-to-tug links fit the ‘hitch’ attachment at one end, and then have a connection point to the tug at the end other that is designed for a simple pin system. The pins are not supplied, so should be acquired with the tug.

It is generally recommended that site staff are issued with a maximum of three bin-to-bin links (and one bin-to-tug link) to ensure that they do not connect more than four bins at a time.

Tugs

Tugs are not supplied by the London Borough of Newham, so need to be sourced from appropriate vehicle manufacturers. It is common practice for the developer to acquire the tug to provide to the housing company or site staff as part of the handover of the development, to ensure it is available for use as soon as the building starts to be occupied.

The tugs should have sufficient towing power for four fully-loaded 1100L steel bins, with additional power if these bins are going to have to be towed up an incline (such as from a basement car park). The braking power also needs to be sufficient to bring the train of heavy bins to a stop within an appropriate distance.

Tugs should be fitted with a towing attachment, which has its own pin for use with the bin-to-tug links.

Tugs should have a flashing beacon to warn pedestrians and other road users of a potential hazard.

Towing Guidelines

It is the responsibility of site managers to ensure that their staff engage in safe towing operations for bins. Detailed guidance and information is available from the relevant bin manufacturers on how to use their products, whilst some housing management companies may have their own policies and procedures based on experience at other sites. The following are some key points:

- All staff involved in towing should have received the appropriate training on these operations.
- No more than four bins should be towed at any time.
- Bin towing should not exceed 4 km/h.
- Additional care should be taken on curves, slopes or when passing over speed humps.
- Bins should not be towed over kerbs – dropped kerbs should be used.
- Stopping distances will be greatly increased when a train of loaded bins is being towed.

Appendix D
Planning Application Checklists for Smaller Developments

The following checklists have been provided for developers of *small* housing and/or flatted developments (less than 50 units) to help ensure they have addressed all of the key requirements of this guidance prior to submitting a planning application.

Requirements will be more extensive for larger schemes and may involve, for example, the production of a Waste Management Plan. Developers of larger schemes should consult with the Council at the earliest opportunity to discuss requirements.

Please note that the checklist is provided for convenience only to help developers cover the main points of the guidance, and should not replace a thorough understanding of this guidance as a whole.

Street-level properties	**Guidance Section**	**Checklist**
Have you ensured there is adequate and appropriately located internal storage space?	2.2	☐
Have you ensured there is adequate external storage space?	2.3	☐
Have you considered whether a communal bin solution is more appropriate for the development? *If it is, please refer to the flats checklist below.*	2.3	☐
Have you ensured that the design of the external storage is appropriate, safe, accessible, and does not intrude on the street scene?	2.4	☐
Has appropriate access and space been allowed for bulky waste presentation?	2.5	☐
Have you considered the provision for garden waste, including space for council collections, space for composting bins, and provision of composting bins?	2.6	☐
Have you ensured proper waste collection vehicle access, including roadway strength, layout, manoeuvring and access?	6.1-6.5	☐
Have you specified all of the above in the planning application?	1.5	☐

Small flatted developments	Guidance Section	Checklist
Have you ensured there is adequate and appropriately located internal storage space?	3.2	☐
Have you ensured there is adequate external storage space?	3.3	☐
Have you considered the need for management of bins and bin stores, including security and cleaning?	3.4	☐
Have you ensured that the external storage facility is well designed and located in an appropriate place, with particular regard to noise, odour, fire, accessibility, security, cleaning and collections?	3.5, 3.7	☐
Have you ensured that the external storage facility is sized appropriately?	3.6	☐
Have you ensured that the bins can be accessed by collection crews? *Are the bins within the maximum distance that operators should be required to wheel the containers?* *Is the collection pathway appropriate?* *Will the crews have access to the bin storage area(s), and if not, what arrangements will be made to move bins to a collection point?* *Have you ensured that there is sufficient space in the bin storage facility to enable operatives to return emptied bins to a position that does not obstruct the manoeuvring of those containers that are yet to be emptied?*	3.8, 3.9	☐
Has appropriate access and space been allowed for bulky waste storage?	3.10	☐
Have you considered the inclusion of a reuse room and/or tool store in the development?	3.10	☐
If your development is a mixed-use commercial and residential one, have you considered the additional requirements for this?	4.2-4.7	☐
If you are intending on using non-standard waste storage and management, e.g., underground waste containers or automated vacuum systems, have you considered the additional requirements for this?	5.1-5.12	☐
Have you ensured proper waste collection vehicle access, including roadway strength, layout, manoeuvring and access?	6.1-6.5	☐
Have you specified all of the above in the planning application?	1.5	☐

Reference

These waste management guidelines are based on a combination of the appropriate regulations, codes of practice and operational requirements specific to the London Borough of Newham.

The following documents should be referred to by architects or developers, but the requirements set out in this set of guidelines should be adhered to for any new development in Newham.

1) British Standards BS 5906:2005 – Waste management in buildings – Code of practice

2) 2010 No.2214 Building and Buildings, England and Wales – The Building Regulations 2010

3) The Building Regulations 2000 – Approved Document H, Drainage and Waste Disposal (2002 edition)

4) Code for Sustainable Homes – A step-change in sustainable home building practice – DCLG, Dec 2006

5) ReLondon: Toolkit for the Flats Recycling Package, https://relondon.gov.uk/wp-content/uploads/2021/02/Resource-London-Recycling-in-flats-toolkit-2020.pdf

6) ELWA joint waste prevention programme for East London information on the plan for the first year (April 2021 to March 2022) can be viewed at https://eastlondonwaste.gov.uk/wp-content/uploads/East-London-Waste-Prevention-Plan-2021-22.pdf

7) The forth-coming Joint Strategy for East London's Resources and Waste (2027-57) can be viewed at https://eastlondonwaste.gov.uk/wp-content/uploads/Joint-Strategy-for-East-Londons-Resources-and-Waste-2027-57.pdf

8) The London Plan, Dec 2020. https://www.london.gov.uk/sites/default/files/the_publication_london_plan_2020_-_clean_version_0.pdf

9) GLA Housing Supplementary Planning Guidance, Mar 2016. https://www.london.gov.uk/sites/default/files/housing_spg_revised.pdf

10) LB Newham Recycling and Waste Collection Policy, Jul 2022. https://www.newham.gov.uk/downloads/file/5753/newham-waste-recycling-policy

11) LB Newham Local Plan, 2018. https://www.newham.gov.uk/downloads/file/1111/newham-local-plan-2018-pdf-

Contacts

Enquiries should be directed to the Development Control Team in the first instance:

Tel: 020 8430 2000

Email: development.control@newham.gov.uk

For specific enquiries relating to waste storage and collection, please contact the Waste Management department. Please note that it may be necessary to supply site plans and initial waste management proposals to enable your enquiry to be handled:

Tel: 020 3373 1698

Email: waste.planning@newham.gov.uk