

Waste Management Design Guide for New Developments

**Waste Collection, Recycling and
Storage Facilities Guidance**

October 2020
Version 5 (AMENDED)



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*This document replaces the previous version titled
“Waste Collection, Recycling and Storage Facilities Guidance: Good Practice Guide for
Developers (Version 4)” which was published in January 2017*

Amendment notice (Version 5)

This version contains the following amendment:

Page 11: Addition of advice regarding communal bin store base construction and durability requirements

1. INTRODUCTION

This document is intended to help relevant parties who are involved in the design and management of new developments or building conversions/change of use to ensure effective waste management provision is made. It is intended to act as a practical guide in the provision of minimum standards for the storage, recycling and collection of refuse.

Throughout this guide, the term “development” includes any new, extended or altered building. Where a building is erected, rebuilt, altered, adapted or undergoes a change of use which requires changes to the existing waste storage/collection arrangements, or renders the waste storage accommodation and access to it insufficient or unsuitable, details of waste storage facilities should be submitted to Kirklees Planning Service and Waste and Recycling Operations Service to ensure effective arrangements are made.

This document should be read in conjunction with other Council policies and legislation as outlined below. This will ensure efficient and practical waste collection procedures, increased levels of recycling, and a benefit to the visual and environmental amenity for all developments.

1.1 Legislative demands and local policy

Resources & Waste Strategy for England 2018: sets out a framework for sustainable waste management emphasising waste minimisation, recovery, recycling, composting targets and substantial reductions to the amounts of biodegradable wastes deposited in landfill sites. In future, Kirklees could see changes to its kerbside collection service as a result of regulation changes proposed by the strategy.

The Environmental Protection Act 1990: places various waste management duties on Local Authorities. Under Section 46 (Receptacles for Household Waste) a Local Authority will require

- Waste of certain types to be stored separately so that it can be recycled
- Developers to provide containers of a specified type for the storage of waste
- Additional containers to be provided for the separate storage of recyclables
- Locations where containers should be placed for emptying to be provided as determined by the Local Authority

The Building Regulations 2010 (Part H6) requires that all new developments must meet the following requirements

- Adequate means of storing solid waste shall be provided.
- Adequate means of access should be provided for people in the building to the place of storage, and, from the place of storage to a collection point agreed by the waste collection authority.

British Standard 5906:2005 Waste Management in Buildings: A Code of Practice for methods of storage, collection, segregation for recycling and recovery of waste from residential and non-residential buildings.

National Planning Policy for Waste (Oct 2014): Aims to ensure new development makes sufficient provision for waste management and promotes good design to secure the integration of waste management facilities with the rest of the development and, in less developed areas, with the local landscape. This includes providing adequate storage facilities at residential premises, for example by ensuring that there is sufficient and discrete provision for bins, to facilitate a high quality, comprehensive and frequent household collection service.

Kirklees Local Plan (Feb 2019):

Policy LP24(d.vi) Design - requires that schemes should incorporate adequate facilities to allow occupiers to separate and store waste for recycling and recovery that are well designed and visually unobtrusive and allow for the convenient collection of waste; and

Policy LP43 Waste Management Hierarchy – asserts that the council will encourage and support the minimisation of waste production and support the re-use and recovery of waste materials including, for example, recycling, composting and Energy from Waste recovery.

Kirklees Highway Design Guide Supplementary Planning Document (Nov 2019): specifies highway scheme design principles including how to accommodate the safe operation and manoeuvring of service vehicles; and incorporating waste storage facilities in the context of highway impact.

Kirklees Highways Adoption – Guidance and Standards: A suite of documents specifying highway design and construction requirements, including for service vehicles.

Kirklees Municipal Waste Management Strategy 2006

Similar to the national strategy, this document focuses on moving waste up the hierarchy towards minimising waste, reuse/repair, recycling, composting, recovery, and finally, using landfill only where absolutely necessary. This document is currently being updated and is expected to be published in 2021.

Climate Emergency Declaration 2019

Kirklees Council declared a climate emergency in 2019 and has set out a vision to improve and protect our environment by making the district carbon neutral by 2038. Increasing the recycling rate in the district is one of a series of measures to achieve this.

2. WASTE MANAGEMENT IN CONTEXT

Kirklees Council serves a growing population which is predicted to increase by 47,800 in the period 2013 to 2031. During this time, the Council will seek to achieve sustainable housing growth through the delivery of a minimum of 31,140 new homes. Local authorities have a legal duty to collect waste from households to protect public health and as new homes are occupied waste

tonnages increase, creating a sustained requirement for waste collection and disposal services which needs to be carefully managed into the future. It is therefore critical that the waste management arrangements for developments are decided early in the design process.

Government policy and the EU Waste Framework Directive have set the requirement to minimise waste production and improve waste management. The Directive sets out the 5 main steps for dealing with waste, ranked by environmental impact. This is the Waste Hierarchy. The top priority of the Waste Hierarchy (Figure 1) is to prevent waste in the first place and if waste is created, it is ranked from preparing for reuse, recycling, recovery and disposal to landfill as a last resort. The hierarchy must be seriously considered to encourage waste minimisation, maximise opportunities for waste segregation to meet recycling targets and contribute towards reducing the Council's carbon impact as part of its climate emergency declaration.

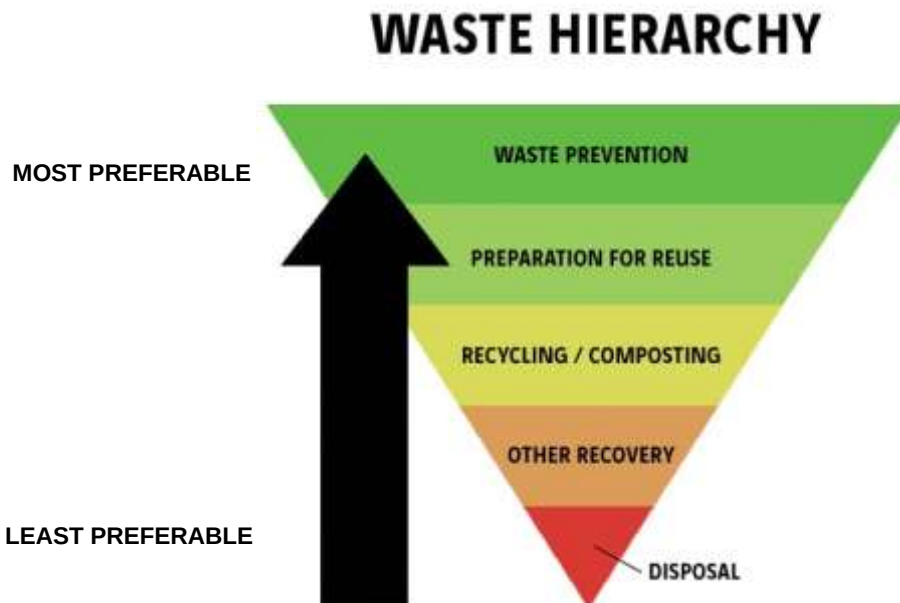


Figure 1: The Waste Hierarchy

The Resources & Waste Strategy for England (2018) sets the following targets:

- By 2020, at least 50% of household waste is recycled or composted
- To eliminate food waste to landfill by 2030
- To eliminate avoidable waste of all kinds by 2050

This guide will contribute to ensuring that Kirklees achieves the best practicable outcome as it strives to meet these national targets.

2.1 Education schemes

Kirklees Council is actively seeking to engage developers in schemes of education to promote the effective aims of waste reduction and recycling, particularly where alternative waste collection systems are to be employed.

It should be recognised that a developer's marketing strategy can be enhanced by developing education schemes in partnership with the Council. An example could be developers providing waste information in a home starter pack.

The Council provides a wide range of education and awareness initiatives all year round to encourage residents to minimise waste and recycle more. Dedicated Recycling and Waste Advisors engage with local communities to provide advice, support and encourage sustainable waste management. This can include door step discussions with householders on what items can go into their green recycling bins, visiting educational establishments /community groups to deliver waste minimisation and recycling workshops and activities.

2.2 Kirklees waste management arrangements

Kirklees Council currently provides the following waste collection service to domestic properties:

Container type	Waste accepted	Collection frequency
Green wheeled bin or liner	Comingled recyclable materials to include paper, card, plastic bottles, tins and cans (incl. aerosols)	Fortnightly (alternating with general waste)
Grey wheeled bin or liner	General waste	Fortnightly (alternating with recyclables)
Brown wheeled bin	Garden waste including grass cuttings, tree/hedge clippings, plants, flowers and leaves	Fortnightly between February and November – optional annual subscription service available to wheeled bin households

Additional grey wheeled bins can be provided to qualifying households and an assisted collection service is offered to residents with mobility issues (ie. who are physically unable to present their waste and recycling bins for collection due to an age related or medical condition).

It is important to note that waste collection services are likely to change in the future, possibly resulting in different container requirements and vehicle types/sizes. These will be driven by **regulatory changes** emerging from the Resources and Waste Strategy for England 2018 (see section 1.1 above).

The Council also offers a commercial waste and recycling collection service to schools and businesses across Kirklees through the Trade Waste Service.

2.3 Container provision

The Council charges for the provision of all general waste and recycling bins to new build properties and developments. These bins remain the property of the Council and can be provided on request from trade.waste@kirklees.gov.uk

All costs for the provision of bins must be paid by the developer, managing agent, owner or occupier. On new developments, it is expected that the developer or agent will work with the Council to co-ordinate the provision of bins to new residents, usually in the context of the discharging of relevant conditions applied to the Planning approval.

3. THE PLANNING APPLICATION PROCESS

Applicants for planning permission that propose new development, conversions or changes of use resulting in additional residential units or houses of multiple occupancy, are required to submit plans for the storage, kerbside presentation and collection of waste from all properties, including the means of access for refuse collection vehicles, as part of the validation process.

This requirement also extends to proposals for new development or the change of use to commercial, employment, leisure and educational uses and mixed-use developments and the extension of such premises where the number of employees, customers and/or students would significantly increase as a result of the development, thereby creating additional waste collection requirements.

The submitted information will be considered as part of the decision-making process in conjunction with the Council's Waste and Recycling Operations Service. Insufficient or inadequate provision for waste and recycling will not be acceptable to the service and extra conditions may be applied to Planning approvals to enforce further consideration before new dwellings are constructed or occupied.

The Council's Planning Service offer a [pre-application advice service](#) which should be used prior to the submission of a planning application to help identify any potential issues at an early stage.

Planning Application information requirements

Locations and adequate footprint for the **storage** for general waste, recycling containers and garden waste as appropriate

The type, design and number of the proposed general, recycling and garden waste containers
Locations for the presentation of bins for collection
Details of the access for a collection vehicle to reach the proposed collection points and demonstration of the manoeuvrability of the collection vehicle into and around the site
The design of any screening, structure or surface used for the storage or presentation of bins
The proposed management and maintenance responsibility of shared storage areas and/or presentation points

There are minimum standards the Council expects developments to meet to enable us to discharge our responsibility to collect waste. These vary according to the type of development and are set out in the following sections.

4. STANDARDS FOR CONTAINER CAPACITY

4.1 External storage capacity

The amount of external waste storage for any given development type is determined by several factors including:

- Collection frequency
- Number of households /occupiers
- Segregation of waste types

Generally, new households occupying an individual plot with private access and external space (including HMOs) will require **standard 240ltr wheeled bins** for general and recyclable waste and have the option to subscribe to the garden waste service.

Households occupying shared buildings, courtyards or other grouped properties will generally share communal waste storage facilities. These will have larger capacity wheeled bins of either 660ltrs or 1100ltrs (referred to as Eurobins).

As a guide, **communal facilities should provide 180ltrs** of storage capacity for each waste type per household (general waste and recyclables)

For large developments with shared facilities, the following table offers a guide to the number of required **1100ltr (Eurobin) containers**.

Number of households	Number of general waste 1100ltr containers	Number of recyclable waste 1100ltr containers
20	3	3
50	8	8
80	13	13
100	16	16

660ltr containers may be a more suitable option for smaller scale development or where design is determined by limited space or access difficulties such as in converted buildings. The following table offers a guide to the number of 660ltr containers for different numbers of households.

Number of households	Number of general waste 660ltr containers	Number of recyclable waste 660ltr containers
6	2	2
10	3	3
20	6	6

In some cases, a combination of container sizes may be most appropriate, and some circumstances may require the use of skip containers rather than wheeled bins. In extreme cases, if it can be demonstrated that sufficient space cannot be found for bin storage within the footprint of the development, the Council may consider providing more regular collections of a smaller number of bins, but this would be chargeable.

Each development should be individually assessed, and advice should be sought from the Council's Waste and Recycling Operations Service as early as possible to avoid delays or complications in the provision of collection services. Planning conditions will be used to secure suitable provision prior to the commencement of any development if this is not properly addressed in submitted designs.

4.2 Internal storage capacity

Internal storage capacity is fundamental to ensuring that residents have sufficient space to undertake segregation at the point of waste production and it is expected that developers will provide containers for use inside dwellings.

An internal capacity of 25 to 40 litres should be provided within the kitchen of a dwelling. Typically, this should be divided to allow segregation of general waste, mixed dry recyclables and organics for composting.

4.3 Container dimensions (external)

The sizes and space requirements for each external container type is given below:

Container	Dimensions
240 litre Wheeled bin 	Width: 740 mm Depth: 580 mm Height: 1100 mm Floor Space Required: 940 mm x 780 mm
660 litre Wheeled bin 	Width: 1360 mm Depth: 770 mm Height: 1170 mm Floor Space Required: 1560 mm x 970 mm
1100 litre Eurobin 	Width: 1375 mm Depth: 990 mm Height: 1370 mm Floor Space Required: 1575 mm x 1190 mm

5. DESIGN REQUIREMENTS FOR STORAGE AND PRESENTATION OF BINS

Waste collection is one of the main visual representations of the taxes local people pay for Council services. It affects every household, in perpetuity. If this service is affected by poor design and ill-considered infrastructure the lasting

impact can be extremely negative for residents, service providers, and the wider community.

There are several key design factors that must influence the layout and construction of new developments to ensure the safe, efficient and effective operation of waste collection services. These affect the siting, design and access to waste storage facilities and bin presentation points and are outlined in the following sections.

5.1 Waste storage conventions

FOR ALL CASES, storage is required to....
Allow enough space for the required number and size of bins (see section 4).
Be on hard, smooth, level surfaces that can be easily cleaned and drained.
Consider and minimise the visual impact on the streetscene.
Not block pedestrian access, driveways or the public highway.
Be convenient for the resident(s), but also sited to prevent use by intruders to gain entry to a property or garden (for advice see Secured by Design website)
FOR PRIVATE INDIVIDUAL DWELLINGS, storage is also required to....
Be located to the rear, preferably behind sufficiently wide gated access. Where rear access is not possible or not accessible (eg for mid terraced properties), storage should be to the front with suitable screening and protection from unauthorised use, damage and theft.
Be in shaded locations or under cover.
Not be stored next to windows or ventilation.
Located no more than 25m from the presentation point for collection.
Enable easy movement of wheeled bins from storage to presentation points without multiple steps or slopes exceeding 1:12 between the two points.
FOR COMMUNAL FACILITIES, storage is also required to....
Be no more than 30m from the main building entrance (in line with Building Regulations 2010, part H6) and be at ground level, within the curtilage of the development.
Be at least 6m from the building to reduce fire risk (for external compounds).
Comply with fire regulations (refer to BS 5906:2005 Waste Management in Buildings; BS476-22:1987: Fire tests on building materials and structures; and BS EN 1634-1:2008: Fire resistance and smoke control tests for door, shutter and open-able window assemblies and elements of building hardware) for internal compounds.

Be well ventilated and have a smooth easily cleanable floor when located internally. Air fresheners and vermin boxes may be required.
Consider the visual, odour and noise impacts to residents and neighbours and use suitable screening and/or planting to mitigate.
Provide unobstructed, level access – no street furniture, pavement kerbs, parking or other obstacles that interfere with the access to, or use of, the facility.
Provide a suitable base constructed to withstand point loading and movement impacts of larger bins over time, and to resist future rutting, pitting, cracking or other such surface degradation that would impair bin manoeuvring.
Ensure base surfaces are durable and waterproof enough to withstand heavy duty cleaning such as power washing.
Have enough internal space to move/rotate bins, supports easy access for residents, and a floor to ceiling/roof height that allows for bin lids to be opened for use.
Have walls slightly higher than the bins and open access to allow users to see into the store before entering (for external compounds).
Be constructed of materials in-keeping with the surroundings, particularly in Conservation Areas or within the curtilage of a Listed Building or other built heritage.
Be included in landscape design proposals where well managed long term soft landscaping is used to screen waste.
Be secure to prevent unauthorised use, damage or theft (collection crew access must be provided).
Allow for waste segregation to help minimise contamination of recyclables, preferably by use of separate enclosures for different waste types.
Include signage to direct users on the correct use of different waste bins, what can and cannot be recycled etc.
Have suitable drainage, with water discharging into a sewerage drain (not onto the highway), to allow the washing of bins.
Include adequate 'dusk to dawn' lighting either within the store or from an outside source to ensure safety of users after dark.
Be managed and maintained by a designated private management company whose contact details are clearly signposted in the facility.

Innovative bin store design that contributes to the overall design of a development are most welcome. Examples of such design can be found in the NHBC Foundation Report [NF60 "Avoiding Rubbish Design"](#).

5.2 Good and bad practice examples - storage¹



As an alternative, developers are encouraged to consider innovative solutions to the storage of waste such as **underground systems**. These may be particularly suitable for use within multi-occupancy large scale residential developments. Examples of this can already be seen in other Local Authority areas such as Cambridge and various London Boroughs. Any proposals will require careful evaluation in partnership with the Council.

Developers are also encouraged to provide **composting facilities**/areas for new private individual dwellings and in communal or high-rise developments where appropriate. Composting areas must be carefully designed as part of the garden and not merely placed in a convenient area, which may be inappropriate. Issues such as odour and vermin must be addressed in the design of the facilities.

¹ Top left image source: NHBC Foundation Report NF60 "Avoiding Rubbish Design"; other images source: Kirklees Council

5.3 Bin presentation point and collection conventions

All bin presentation points are required to be....
Located close to, but not on, an adopted highway at the boundary of the curtilage no more than 25m from the storage point and not in a location requiring bins to be manually moved through a building, car park or passed parked vehicles.
A hardstanding, situated to allow convenient, level and unobstructed access for collection crews, with dropped kerbs where necessary.
Positioned with consideration for minimising 'bin blight' on collection day – large groups of bins outside windows or blocking driveways or footpaths create a nuisance for residents and highway users.
In conformity with Building Regulations 2010 Part H6 which states that the route between storage and presentation points should not require bins to be moved up/down slopes of more than 1:12 or multiple steps.
Located so that collection crews do not have to wheel bins more than 8m (for 240ltr bins) or 25m (for larger bins) to reach the rear of the collection vehicle.
Positioned to allow safe working of the refuse collection vehicle in respect of road junctions or unnecessary obstruction to other road users.

Collection vehicles will not enter private shared driveways to collect domestic waste. Where these are a necessary part of site layout, **communal presentation points**, meeting the above criteria, must be provided for the affected properties.

The Council's refuse teams will not enter construction sites to collect waste. It is therefore vital that applicants/developers work with the Council to make provision for **temporary waste collection** on large sites that will be phased into use. This will require the designation of a suitable presentation point, accessible from an adopted highway or other accessible road within the development. It is the developer's responsibility to ensure waste from occupied dwellings is brought to the temporary presentation point in time for collection. These arrangements will help to ensure that new residents moving in before completion of the whole site can be provided a service and will generally be required by **Planning condition** to secure an agreement before the first occupation of any plot on site.

5.4 Good and bad practice examples – presentation points²



6. HIGHWAY DESIGN REQUIREMENTS

New developments and their access roads should be designed to accommodate the manoeuvring of our standard Refuse Collection Vehicle (RCV), the working dimensions of which are given in the table below³.

Refuse Collection Vehicle standard dimensions	
Length	11.85m
Length when loading	13.1m
Width	2.5m
Width when loading	4.1m
Working height (including lop loader arms)	6.0m

² Top left image source: NHBC Foundation Report NF60 "Avoiding Rubbish Design"; bottom images source: Google Streetview; top right image source: Kirklees Council

³ Kirklees has a range of different vehicle sizes and models in its RCV fleet. Some of these are under review for replacement at the time of publishing, and emerging national waste legislation may affect the type of vehicle used in the future. New developments should be planned to accommodate the standard dimensions and any substantial material change to the fleet will be reflected in future updates to this document.

Turning circle, between kerbs	17.88m
Turning circle, between walls	22.07m
Gross vehicle weight	32 tonnes

Computer aided **swept path analysis** is a critical submission requirement on any domestic development proposing new roads or access. It must be demonstrated that our standard RCV can enter the site safely and efficiently, and manoeuvre around the site to collect from all the proposed presentation points, in a forward gear.

Provision to turn the vehicle within the site must also be provided to allow safe exit in a forward gear. All swept path analysis should account for the likely locations of on-street parking, the passing of other vehicles and the need to ensure a 0.5m buffer between the vehicle wheels and the kerb edge. The locations of street furniture must also be factored into this analysis in relation to the overhang of the vehicle.



Reversing and manoeuvring an RCV is one of the most hazardous tasks our refuse drivers perform. Nationally, the waste sector generally reports over 4 times more injuries each year than most other industry sectors, with the most serious of these relating to being struck by a moving vehicle⁴. Across all sectors, nearly a quarter of all deaths involving vehicles at work occur during reversing⁵. Therefore, to help reduce the risks, reversing and other difficult manoeuvres for an RCV must be prioritised for elimination where ever possible and the need for long reversing manoeuvres must be avoided and designed out at an early stage.

Roads to be used by RCVs must be designed to....
Meet adoptable standards (Highways Act 1980 Section 38) (consult Kirklees Highway Design and Adoptions Team).
Allow for the safe operation and manoeuvring of a standard vehicle demonstrated by swept path analysis.
Eliminate or minimise the need to reverse - looped road designs are strongly preferred, and it must be possible to reach all presented bins without long reversing manoeuvres.

⁴ <https://www.hse.gov.uk/statistics/industry/waste-recycling.pdf>

⁵ <https://www.hse.gov.uk/workplacetransport/information/reversing.htm>

Prevent any requirement to stop an RCV within a road junction.
Avoid the need to collect bins facing uphill on a gradient of more than 1:12.
Provide sufficient space to pass other vehicles, parked cars and execute a safe turning manoeuvre.
Allow enough room to the rear and sides of the vehicle for loaders to operate the lifters safely and without obstructing other road users.
Be compliant with the Kirklees Highway Design Guide SPD & Kirklees Residential Design Guide SPD.

Planning applications that fail to meet the highway design requirements of the Waste Collection Authority will attract negative feedback in the consultation process, resulting in requests for amendments or additional Planning conditions.

7. NON-DOMESTIC DEVELOPMENT CONSIDERATIONS

Developers are advised to consult with the Council in relation to the amount of space required for commercial waste storage before the submission of a planning application.

It may be appropriate to make use of skip containers and waste compaction systems at high rise multi-occupancy developments and in commercial developments. However, it must also be noted that where the use of a compactor or skip is being considered, evaluation must be given to servicing and wider infrastructure requirements.

Adequate access for suitable collection vehicles must be provided along with adequate working areas, the wider road network must be capable of accommodating the required service vehicles.

Key considerations for non-domestic waste storage and collection...
Designated storage space – must be within the boundary of the property, not on the highway
Size - storage should be large enough for the predicted type and size of bins required for the activity in the building
Nuisance issues - noise, odour, antisocial hours of use, proximity to windows, visual intrusion; and the effect on the property itself, its users and neighbours
Security - stores should be vandal proof and secure to prevent fly-tipping, unauthorised use and spreading of waste into the surrounding area

Access - Bins should not have to be brought through the building to be emptied and suitable collection vehicles must be able to reach the storage or collection point

Fire risk - in terms of container construction/material, type of waste, potential for arson attack and proximity to building and neighbours

8. FURTHER INFORMATION AND KEY CONTACTS

Advice or further information can be sought at any stage before, during or after the Planning application process through the Council's **Operational Planning Co-ordinator** by emailing waste.planning@kirklees.gov.uk

Other useful contacts:

Trade Waste – trade.waste@kirklees.gov.uk

Highway Development Management - Highways.DevelopmentControl@kirklees.gov.uk

Highway Design and Adoptions – highways.section38@kirklees.gov.uk

Landscape Design – landscape.streetscene@kirklees.gov.uk