



Waste Management guidance notes for residential properties

1. Introduction

Leicester City Council is responsible for the collection, treatment and disposal of non-recyclable and recyclable waste from all domestic properties within its boundary.

This document provides guidance to architects and developers to use when planning and designing a new development, undertaking refurbishment, modernising or changing the use of a building so that effective waste and recycling storage and collection is included at the design stage.

This guidance applies to residential properties only and does not include commercial properties.

This document should be taken as a guide, as individual developments may have specific requirements. In addition development proposals must comply with all relevant legislation.

The following documents should be consulted when designing waste storage:

- BS5906 Waste Management in Buildings (2005)
BS 5906 is a code of practice for methods of storage, collection, segregation for recycling and recovery, and on-site treatment of waste from residential and non-residential buildings and healthcare establishments. BS 5906 applies to new buildings, refurbishments and conversions of residential and non-residential buildings, including but not limited to retail and offices.
- The Building Regulations 2010, Approved Document H
- Building Regulations & Planning Law
For new developments, the council advises developers and architects to refer to the Governments Planning Portal
<http://www.planningportal.gov.uk/buildingregulations/greenerbuildings/sustainablehomes>

2. Developer requirements

The developer will liaise with the planning department for details and approval of their planning application and will inform the city council's Building Control of completion of the new development.

Some developments may not fit into the broad categories outlined in this document, in which case advice should be sought from the Planning and Waste Management departments.

Leicester City Council requires the developer to contact Waste Management to organise the delivery of the necessary containers. At least 3 months' notice must be provided prior to occupation.

Please note that in planning applications where:

- Commercial waste will also be generated, separate storage and collection arrangements are required and must be considered and outlined at the planning stage
- Clinical waste is likely to be generated, separate storage and collection arrangements are required and must be considered and outlined at the planning stage.

Waste Management Contact Details:

Address: Waste Management, Leicester City Council, City Hall, 115 Charles Street, Leicester,
LE1 1FZ

E-mail: waste.management@leicester.gov.uk

Tel: 0116 454 1002

3. Leicester's waste and recycling schemes

Under the Waste Regulations we need to provide collection of target recyclables. The city council therefore operates a commingled recycling service from our orange bags and communal recycling bins. The following can all be recycled together in one container:

- Paper and cardboard
- Cans, food tins and foil
- Glass bottles and jars
- Plastic bottles, food-trays and pots
- Food and drink cartons, e.g. Tetra Pak

The city council also operates an optional, chargeable garden waste collection service.

4. Storage capacity requirements for waste and recycling

Property type	Residual Waste <i>(that cannot be recycled)</i>	Recycling <i>(dry mixed recycling – detailed in section 3)</i>	Garden Waste
Houses	<ul style="list-style-type: none"> ▪ 1 x 140 litre (l) (standard size) ▪ Larger sizes of 240l or 360l bins are offered appropriate to the number of residents living at an address. ▪ Weekly collection 	<ul style="list-style-type: none"> ▪ Orange bags ▪ Weekly collection 	<ul style="list-style-type: none"> ▪ 240l wheeled bin ▪ Provided at a cost to resident ▪ Fortnightly collection ▪ March – October
House conversions	<ul style="list-style-type: none"> ▪ 1 x 140l, 240l or 360l wheeled bin ▪ Weekly collection 	<ul style="list-style-type: none"> ▪ 140l or 240l communal recycling bin ▪ Weekly collection 	<ul style="list-style-type: none"> ▪ 240l wheeled bin ▪ Provided at a cost to resident ▪ Fortnightly collection ▪ March – October
Flats	<ul style="list-style-type: none"> ▪ 1,100l communal wheeled bin (standard size) * ▪ 660l bins are offered in some circumstances ▪ Weekly collection 	<ul style="list-style-type: none"> ▪ 1,100l communal recycling bin * ▪ Weekly collection 	N/A

* To calculate the estimated total weekly refuse (recyclable and non-recyclable) arising from a residential development with communal refuse facilities (i.e. house conversions or purpose built flats), use the following formula:

No. of units in block:
No. of bedrooms:
Average no. of bedrooms:
Total weekly waste arising's (l) = no. of units x ((70l x average no. bedroom) +30)

Recycling provision:

It is required that space be provided for recycling bins to accommodate 50% of this total weekly volume. This is in line with the revised British Standard (BS5906 Waste Management in Buildings).

Residual waste provision is required for 87.5% of the total weekly waste arising:

Dry mixed recycling provision (l) = Total weekly waste (L) x 0.5
Residual waste provision (l) = Total weekly waste (L) x 0.875

E.g. If the total weekly refuse is 1000l, we would require 500l capacity for recycling and 875l capacity for residual waste.

Type / number of bins required:

The bin sizes detailed in Appendix A should be used to estimate the number and type of bins which will be required to accommodate refuse / recycling.

5. Storage and access requirements for waste and recycling:

All new property developments

The following general principles must be applied to all new residential developments covered by this guidance (as highlighted in section 5):

Provision of waste and recycling storage areas:

- Adequate internal storage space should be supplied for storing non-recyclable waste and recyclable materials, prior to the transfer of the materials to a bin storage area
- Storage areas must be provided to accommodate all receptacles required.

Location of external storage areas:

- Communal waste and recycling storage areas should be sited at ground level within the footprint of the development.
- In developments where the storage area is proposed underground, it should be clearly marked on the site plan where the collection point will be on ground level on collection days. In this circumstance, the following points should be adhered to:
 - The city council will only collect the containers if they will be transported to ground level.
 - The use of a lift is recommended:
 - The lift must be large enough to comfortably accommodate one waste receptacle of up to 1,100 litre capacity and a porter.
 - The lift doors and the lobby or corridor area must be sized so that the receptacles can be easily manoeuvred.
 - A statement detailing how the containers will be transported to the waste collection point at ground level should feature in management plan of the site.

Access to bin storage areas:

- Waste collection points should be to the front of the premises where practically possible.
 - If this is not possible, a separate collection point must be made clear on the site plan submitted.
 - It should be made clear who will be responsible for transporting waste and recycling containers to this point on collection days.
 - Details for the collection of waste and recycling in these circumstances should be discussed with Waste Management before submission to Planning.

- Waste and recycling storage areas must be in a position which is easily accessible by collection vehicles and collection operatives.

- 4 wheeled containers (i.e. 1100l or 660l bins) should not be wheeled over steps or kerbs.
 - A drop kerb as near as possible to the storage area will be required to allow for the safe movement of such containers to enable collection operatives to collect non-recyclable waste and recyclable materials in accordance with the Health and Safety at Work Regulations.

- The access road on the site should be able to safely accommodate collection vehicles.
 - Surfaces, utilities and utility covers should be constructed to withstand the weight of waste collection vehicles (i.e. 26,000 – 32,000 kg)
 - Reversing of collection vehicles should be avoided, to address traffic and public safety issues.
 - If this is not possible, the site layout must allow room for the collection vehicle to manoeuvre.
 - A turning assessment should be made with use of the appropriate software (such as Auto Track), taking into account the vehicle dimensions (listed in Appendix B), and submitted with the planning application and
 - The maximum vehicle reversing distance of 12m should be accounted for.
 - Vehicle dimensions are listed in Appendix B.

- In cases where the access road has a restricted head height or if the vehicle has to pass through any part of a building, there must be a minimum clearance height of 4000mm.
 - Clearance of overhead fixtures and fittings must be allowed for.

- Access paths should be a minimum width of two metres, have a reasonably smooth finish and be level.
 - The only exception to this will be if the gradient falls away from the waste and recycling storage area, in which case the gradient should not exceed 1:14.

- If any access points are to be locked, 'coded' entry points are highly recommended.
 - Keys or electronic fobs that can be misplaced should be avoided.
 - Waste Management must be provided with the access codes for these areas to ensure that collections can be made (see contact details in Section 1).
 - If keys or fobs are used, these must be provided free of charge and any replacements throughout the lifetime of the building must be provided free of charge.
 - A minimum of 3 copies of all keys / fobs should be provided to Waste Management along with a contact name, telephone number and e-mail address of the managing agents of the building.

6. Additional property specific guidance for storage and access requirements for waste and recycling

In addition to the above general principles which apply to all types of new property (section 6); there are specific principles for certain property types that must be applied:

Houses converted to flats

Provision of waste and recycling storage areas:

- A paved or hard standing area of adequate size must be provided within the boundary of the property for the storage of the necessary number of containers, ensuring that the lids can be fully opened.
- Bin storage areas should be located to create minimum nuisance to adjoining properties

Access to bin storage areas:

- Container areas must be in a position that makes it convenient for the householder to present all receptacles for collection from the front edge of the property.

Purpose built block of flats

Provision of waste and recycling storage areas:

- Storage areas for containers for non-recyclable waste and recyclable materials must be co-located (ideally within the same bin storage area) so that both recycling and waste disposal are equally convenient to access.
 - For large developments, several bin storage areas may be appropriate.
- The position and design of communal bin storage areas should consider the impact of noise and smell on the occupants of neighbouring properties, existing and proposed.

Communal storage areas must:

- Provide enough space to accommodate the required number of bins, allowing easy access to the bins and ensuring that an individual bin can be removed from the area without the need to move other containers.

- Be designed with enough head height into the storage area to allow for the lid of a bin to be lifted comfortably.
- Allow for additional storage space (preferably lockable) for bulky waste such as fridges/freezers, washing machines, mattresses, furniture, IT equipment etc.
 - This should be accommodated in a designated dry storage room which should not be part of the communal storage area for non-recyclable waste and recycling materials (however this can be next to or adjoining the storage area).
 - These items are only collected on request by the city council and may be charged for.
 - Waste Management must be provided with the access codes for these areas to ensure that collections can be made (see contact details in Section 1).
 - The city council currently offers a very popular free bulky waste collections service, which residents of the City may use free of charge every 2 months.
- Have a suitable impermeable hard standing ground covering.
- Be well ventilated and well lit.
- Have a cleanable floor and have suitable drainage to facilitate the cleaning of bins and prevent odour and vermin problems.
 - All run off must flow towards a drainage point.
 - Access to water supply should be provided.

Access to bin storage areas:

Communal storage areas should be:

- Sited so that residents are not required to carry non-recyclable waste and recyclable materials more than 30 metres from the front of the property (excluding vertical distances).
- 2 wheeled bins (140l, 240l and 360l bins) should not have to be wheeled more than 20m from the bin storage area to the collection point
- 4 wheeled bins (660l and 1100l bins) should not have to be wheeled more than 10m from the bin storage area to the collection point
- Sited at ground level within the footprint of the development.

- Located so as not to interfere with pedestrian or vehicle access to buildings. There should be no obstructions or parking in front of the doors.

Signage:

- Signs to inform residents where storage areas for non-recyclable waste and recyclable materials are located must be provided, with signs placed in a suitable prominent position to clearly identify the bin storage area.

7. Submission of site plans or drawings:

A waste management plan with a dedicated drawing (site plan) should be submitted to the planning department in the planning application, detailing the waste management arrangements. It should include:

- The proposed storage for external non-recyclable waste and recycling containers. This must be clearly marked and illustrated.
- The calculations made to determine the overall storage allowance for a maximum of once a week collection.
- The proposed access and collection routes for collection vehicles.
- Reversing distances (avoided if possible).
- The distances between vehicle collection points and storage areas.
- A turning assessment that has been made using the appropriate software (e.g. Auto Track) and taking into account the vehicle dimensions (listed in Appendix B).
- A statement detailing how the containers will be transported to the waste collection point at ground level (in developments where the storage area is proposed underground).
- A safety assessment of the location where the collection vehicle will stop to undertake collections (this is especially important if it is proposed that a collection vehicle is to stop on the public highway to undertake collections). The safety assessment should consider but not be limited to – speed limit, vehicle movements per hour, bus route, dual or single carriageway, one-way roads, loading restrictions etc.

8. Checklist for property developers and planning staff

STORAGE REQUIREMENTS FOR WASTE AND RECYCLING	Check Complete ✓Or X
ALL PROPERTIES	
Provision of waste and recycling storage areas:	
<ul style="list-style-type: none"> ▪ Adequate internal storage space for storing non-recyclable waste and recyclable materials, prior to the transfer of the materials to an external bin e.g. split bins 	
<ul style="list-style-type: none"> ▪ External storage areas to accommodate all receptacles required by Leicester City Council 	
Location of external storage areas:	
<ul style="list-style-type: none"> ▪ Sited at ground level within the footprint of the development 	
<ul style="list-style-type: none"> ▪ If storage area is underground: <ul style="list-style-type: none"> ○ Location of storage area and waste collection point to be clearly marked on the site plan. ○ Statement of how the containers will be transported to the ground floor waste collection point included in the site management plan. 	
Access to bin storage areas:	
<ul style="list-style-type: none"> ▪ Waste collection points located at the front of the premises where practically possible If not possible: <ul style="list-style-type: none"> ○ Separate collection point to be clearly marked on the site plan ○ Statement confirming who is responsible for transporting waste and recycling containers to the collection point on collection days. ○ Inclusion of these details in the site management plan. 	
<ul style="list-style-type: none"> ▪ Containers located in an easily accessible position for collection vehicles and collection operatives 	
<ul style="list-style-type: none"> ▪ No steps or kerbs in a place over which the container must be wheeled 	
<ul style="list-style-type: none"> ▪ Drop kerb as near as possible to the storage area 	
<ul style="list-style-type: none"> ▪ Access for the collection vehicles to site by driving forwards only (i.e. no reversing) If not possible: <ul style="list-style-type: none"> ○ Site layout allows room for the collection vehicle to manoeuvre ○ Vehicle reversing distance is a maximum of 12m 	

<ul style="list-style-type: none"> ○ Completed turning assessment to be submitted with the planning application 	
<ul style="list-style-type: none"> ▪ Minimum clearance height of 4000 mm on the access road (allowing additional height for clearing of overhead fixtures and fittings) 	
<ul style="list-style-type: none"> ▪ Access path a minimum width of 2 metres 	
<ul style="list-style-type: none"> ▪ Access path a reasonably smooth finish and level or ▪ Gradient of no more than 1:14 falling away from the storage area 	
<ul style="list-style-type: none"> ▪ Where relevant, consideration of how collection staff will gain access to locked bin storage areas <ul style="list-style-type: none"> ○ Codes / keys / fobs to access these areas are to be provided to Waste Management prior to occupation 	

HOUSE CONVERSIONS only	
Provision of waste and recycling storage areas:	
<ul style="list-style-type: none"> ▪ A paved or hard standing area of adequate size within the front boundary of the property for the storage of the necessary number of containers, ensuring that the lids can be fully opened. 	
<ul style="list-style-type: none"> ▪ Bin storage areas located to create minimum nuisance to adjoining properties (i.e. impacts of noise and smell) 	
Access to bin storage areas:	
<ul style="list-style-type: none"> ▪ Container area in a position that makes it convenient for the householder to present all receptacles for collection from the front edge of the property. 	

PURPOSE BUILT BLOCK OF FLATS only	
Provision of waste and recycling storage areas:	
<ul style="list-style-type: none"> ▪ Storage areas for containers for non-recyclable waste and recyclable materials co-located (ideally within the same bin storage area) 	
<ul style="list-style-type: none"> ▪ Several bin storage areas for large developments 	
<ul style="list-style-type: none"> ▪ Communal bin storage areas located to create minimum nuisance to adjoining properties (i.e. impacts of noise and smell) 	
<ul style="list-style-type: none"> ▪ Sufficient space to accommodate the required number of bins: <ul style="list-style-type: none"> ○ Access to the bins ○ Individual bins can be removed from the area without the need to move other containers 	
<ul style="list-style-type: none"> ▪ Sufficient head height into the storage area to allow for the lid of a bin to be lifted comfortably 	
<ul style="list-style-type: none"> ▪ Additional designated dry storage space (preferably lockable) sufficient for bulky waste storage 	

<ul style="list-style-type: none"> ○ Codes to access these areas to be provided to Waste Management prior to occupation 	
<ul style="list-style-type: none"> ▪ Impermeable hard standing ground covering 	
<ul style="list-style-type: none"> ▪ Well ventilated and well lit area 	
<ul style="list-style-type: none"> ▪ Cleanable floor 	
<ul style="list-style-type: none"> ▪ Drainage <ul style="list-style-type: none"> ○ All run off to flow towards a drainage point ○ Access to water supply 	
Access to bin storage areas:	
<ul style="list-style-type: none"> ▪ No more than 30 metres carrying distance from resident's property to storage area 	
<ul style="list-style-type: none"> ▪ Sited at ground level within footprint of the development 	
<ul style="list-style-type: none"> ▪ No interference with pedestrian or vehicle access to buildings 	
<ul style="list-style-type: none"> ▪ Soft landscaping around area to offer suitable screening 	
Signage:	
<ul style="list-style-type: none"> ▪ Signs sited in a prominent position to identify storage areas 	
<ul style="list-style-type: none"> ▪ Agreement with city council to supply branding and messages for signs 	
ALL SUBMISSIONS TO PLANNING	
A dedicated drawing (site plan) must be submitted to the planning department in the planning application, detailing the waste management arrangements. It should include:	
<ul style="list-style-type: none"> ▪ The proposed storage for external non-recyclable waste and recycling containers ▪ The calculations made to determine the overall storage allowance for a maximum of once a week collection ▪ The proposed access and collection routes for collection vehicles ▪ Reversing distances (if reversing cannot be avoided) ▪ Distances between vehicle collection points and storage areas ▪ A turning assessment that has been made using the appropriate software (e.g. Auto Track) and taking into account the vehicle dimensions ▪ A statement detailing how the containers will be transported to the waste collection point at ground level (in developments where the storage area is proposed underground) ▪ A safety assessment of the location where the collection vehicle will stop to undertake collections. 	

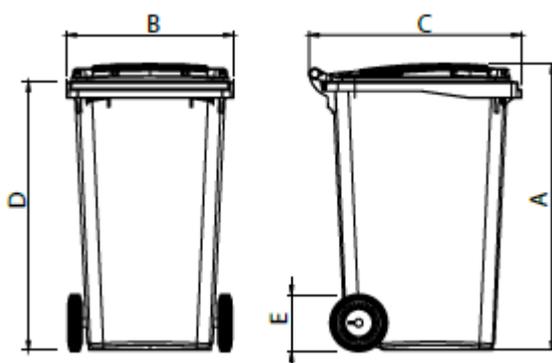
Appendix A: Waste container dimensions

All bins sizes are approximate guides, as currently supplied and therefore exact dimensions may vary.

140 LITRE BIN

240 LITRES

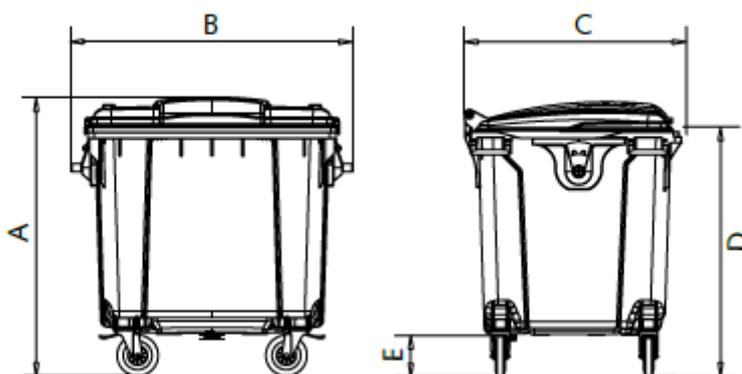
360 LITRES



Nominal volume (l)	140	240	360
A Overall height (mm)	1030	1003	1112
B Overall width (mm)	480	580	585
C Overall Depth (mm)	553	738	880
D Height to upper edge comb (mm)	969	938	1020
E Wheel diameter	200	200	200/300

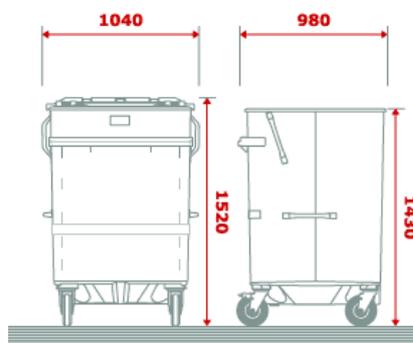
660 LITRES

1100 LITRES



Nominal volume (l)	660	1100
A Overall height (mm)	1213	1354
B Overall width (mm)	1373	1373
C Overall Depth (mm)	780	1073
D Height to upper edge comb (mm)	1088	1206
E Wheel diameter	200	200

Chamberlain Bin (Replacement for Paladins)



Appendix B: Waste Vehicle Dimensions

The following is the current specification of waste collection vehicles used in Leicester. However, over time the vehicles used may change. Therefore, caution should be applied when using these values and ensure there is sufficient room for manoeuvre.



Vehicle Model	OL-19N 6xRS
Compaction body type	Olympus 19N (18.7m ³)
Elite chassis type	6x2RS (Rear Steer) Narrow Track
GVW (Gross Vehicle Weight)	26000 kg
V1 Overall wheelbase	5250
Turning circle - overall (metres)	17.7
Vehicle unladen weight	13180
V2 Overall length	9150
V2 Overall length - tailgate raised	10230
V3 Front axle to front of compaction body	650
V4 Front overhang	1665
V4 Front overhang - cab tilted	3465
V5 Rear overhang	2235
V5 Rear overhang - tailgate raised	3095
V6 Overall height	3450
V6 Overall height - tailgate raised	5100
V7 Height at exhaust tip - nominal	3500
V8 Cab roof height	3040
V8 Cab roof height - cab tilted	3600
V9 Cab floor height	805
V10 First cab step height from ground	435
V11 Rave rail height	1050
V12 Ground clearance at lowest part of vehicle	250
V13 Ground clearance - tailgate	410
V14 Approach angle	15.5 degrees
V15 Departure angle	16 degrees

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