

Refuse & Recycling Storage Design Guide



July 2013



Good design and effective management are key to delivering successful refuse storage.

Contents

Section	Page
Introduction	2
1. Wheelie Bins	3
2. External communal refuse storage	5
3. Below Ground Refuse Storage	7
4. Internal Refuse Storage	8
5. Commercial Refuse	8
6. Recycling	8
7. Incorporated communal refuse storage	9
Appendix	11
Checklist	14

NOTE

A review of the content of this document will be undertaken following six months of use to ensure that it is meeting its objective.

Consideration will be given at that time to giving the document Supplementary Planning Document (SPD) status in accordance with the emerging Lambeth draft Local Plan.



Threat to public health.



Visual blight of bins in front gardens.



Permanently footway obstruction.



Front garden too small to accommodate bin.

Introduction

The Council is required, under part II of the 1990 Environmental Protection Act, to collect household waste from all residential properties in the borough and, if requested, make provisions for the collection of commercial waste. Under section 46 of the Act, the Council specifies the type and number of receptacles to be used and where they should be placed in order to ensure compatibility with council collection methods and to facilitate collections.

This guidance is offered to assist designers achieve adequate refuse and recycling storage facilities. This matter needs to be considered at the outset of the design process when scheme layouts are being formulated to ensure full integration and adequate provision. If not carefully considered significant problems can arise for residents, the public and those responsible for refuse collection and transportation. Common issues include:

- **Visual blight** caused by storage containers can be extreme; the impact of bins standing in forecourts and front gardens can be adverse both for residents of these premises and the passing public.
- **Threat to public health** and amenity by inadequate refuse storage. Vermin are attracted to uncontained refuse bringing the potential for disease and infection. Unpleasant odours emanating from bins and storage areas can blight the residential amenity of adjoining residents.
- **Highway Obstruction** due to bins standing permanently on the street and thus restricting the footway. This can be particularly problematic for wheelchair users and people with pushchairs and restricting the view of drivers and thus have the potential to impact adversely on highway safety.

Planning Applications

It is important that application submissions (both for full permission and for the discharge of conditions) are accompanied with sufficient information (including metric scaled drawings) to clearly illustrate that the advice provided in this document has been fully taken on board at the design stage. A failure to meet the requirements within the document may lead to submissions being refused permission.

It is important that all planning approvals are implemented in accordance with the approved drawings. Failure to do so is likely to result in a breach of planning control and may result in enforcement action being taken to remove the breach and comply with the approved scheme. Similarly, should unacceptable works be implemented without the necessary approvals enforcement action may also result.

Commencement of Collection Services

When a new residential development is nearing completion, it is the responsibility of the developer to contact Lambeth Environmental Services and Lambeth Highways to arrange for waste and recycling collection services to commence.

Further Information

This document aims to address common issues. Further clarification on design, siting, construction detailing may be sought from Lambeth Planning. For further assistance on technical specifications and collection requirements please consult Lambeth Streetcare.

e-mails: streetcarecallcentre@lambeth.gov.uk
 planning@lambeth.gov.uk

Telephone: 020 7926 9000.

1. Wheelie Bins

1.1 Wheelie bins are most commonly used for low-rise housing and where houses have been converted into a small number of flats; where there is external space for bin storage.

1.2 Ideally wheelie bins should be stored in visually unobtrusive locations; storage areas to the side or rear of the property will normally be sought in preference to storage in the front garden. Where such opportunities do not exist storage in front gardens will be considered acceptable where the bins are:

- Provided with defined storage location in an unobtrusive location adequately screened in views from the street.
- A paved path of adequate width links the store to the street entrance.

1.3 Provision should be made to minimise the visual impact through:

- Sitting (not too close to entrances / windows or rising up behind street boundaries)
- Choice of enclosure materials (to match the host building / locality)
- Screen planting (bushy shrubs or climbing plants)

1.4 Timber is not considered robust enough to take the heavy use associated with properties in multiple occupancy. In situations where enclosures are proposed for two or more bins a brick enclosure (double skin brickwork) will be sought. Consideration should be given to ensure that the lid of the bin can be easily opened when it is 'parked' within the enclosure. Manoeuvring and access are therefore important considerations.

1.5 Wheelie bin enclosures should not have doors or roofs.

1.6 Not all housing within Lambeth can accommodate individual wheelie bins. Properties within the following categories may be exempted from having wheelie bins:

- Where there is insufficient space for a 140, 240 or 360 litre wheeled bin without obstructing either the entrance to a property or the pavement outside the property.
- Where it is impossible for the resident(s) to manoeuvre the bin from its storage point to the collection point without endangering themselves or anyone else involved.

NB. Lack of adequate maintenance by the householder to hedges, walls, paths or fences will not be accepted as a legitimate reason not to accommodate a wheeled bin

- Where the collection operatives are unable to manoeuvre the bin from the collection point to the vehicle, and back to the presentation point, without endangering themselves or anyone else.
- In sensitive sites within conservation areas or in the grounds of listed buildings where wheelie bins or their enclosures are not considered appropriate due to an acceptable impact on setting. Judgements in these instances will be made on a case-by-case basis by the Council when considering proposals.

1.7 Once an exemption has been agreed by the council the refuse for the exempted properties, must be presented for collection in securely tied black sacks. The storage of black sacks needs careful consideration; especially internal storage. See section 4.

1.8 See also 'Wheeled bins for Low-Rise Households', Lambeth Council, March 2011.



This timber enclosure is enhanced by a climber.



Camouflage can lessen visual impact.



Part of this front garden has been excavated to keep the bins out of sight from the street. Their in-ground placement allows easy access to the lids. The bins are wheeled up a gentle 4

2. External communal refuse storage

2.1 In larger schemes and on housing estates Euro-bins stored outside the building are the preferred refuse storage option. Consideration needs to be given to:

- Convenience for both users and for refuse collection vehicles.
- No harm to visual or residential amenity.
- Enclosure design (inc. materials) which is robust, attractive and low maintenance.
- Community safety, highways safety crime and antisocial behaviour.

2.2 Unobtrusive side and rear locations / service areas are preferred. Sitting at main entrances and on street frontages should be avoided in order to protect amenity. Siting near the windows to habitable rooms is considered unacceptable on odour and outlook grounds.

2.3 Designs which provide separate access for users and refuse collectors are preferred. A clear space of 150mm should be provided between and around the bins for ease of access. Adequate space should also be provided for easy manoeuvring.

2.4 Brickwork (double skin) is preferred for walls. Rubber buffers should be fitted to the walls to protect from impacts. Pipes and other services in refuse stores should be protected within steel cages. Hit-and-miss brickwork detailing can be used if ventilation / ornamental effect is required. Screen walls should not significantly exceed the height of the bins. Roofs should be avoided unless there is a specific justification. Pergolas are encouraged in order to provide visual screening; however, they must be accompanied by suitable climbing plants. Where overhead structure is proposed headroom should be a minimum of 2m high.

2.5 All stores should be gated and locked. Gates should have robust galvanised metal frames / hinges and locks. Timber framed gates and enclosure walls are not considered robust enough and will be resisted. Floors should be paved and step-free.

2.6 Manoeuvring routes should be clear of obstruction (bollards and yellow lines should clearly define the route) for easy access both for users and refuse collectors. Adequate sight-lines, turning heads and access routes should be provided for collection vehicles. Flat surfaces and drop-down kerbs are essential to aid easy movement of the containers. Care should be taken to design out any opportunities for anti-social behaviour—roofed walk-in structures should be avoided in favour of more open layouts. In order to avoid graffiti the use of enclosures with rendered walls (painted and unpainted) will be resisted.



These overly large enclosures harm the outlook of residents and are overly dominant.



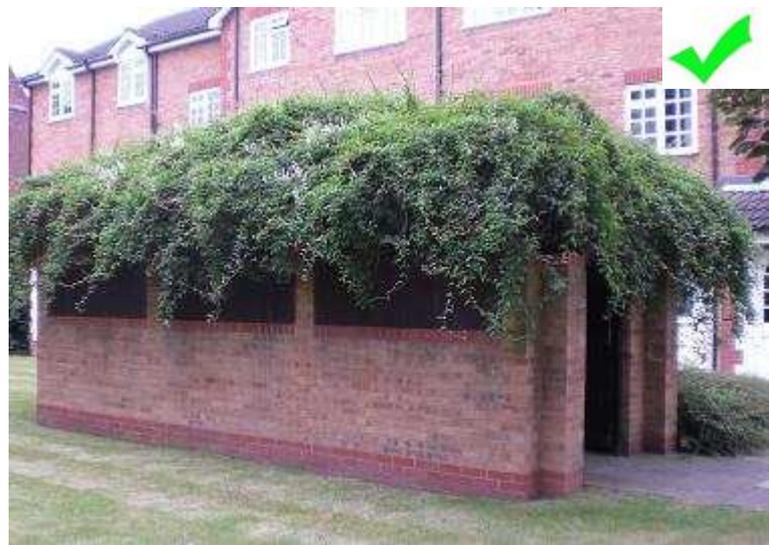
Inadequate screening.



Unacceptable - poor appearance and timber frame.



Gates (when required) need to be robust and well designed to withstand damage.



Pergola planting significantly enhances appearance; especially when viewed from above. Both structures are naturally ventilated, well designed and robustly constructed.

3. Below Ground Refuse Storage

3.1 Below ground storage options can be a space saving alternative to conventional storage enclosures. In this respect they can be ideal solutions where visual amenity needs to be protected (conservation areas, listed buildings, parkland and open garden spaces). Consideration needs to be given to access for refuse collection, impact on tree roots and below ground archaeological remains. If this approach is taken early discussion with the Lambeth Streetcare is essential.



Refuse units within a brick enclosure in an urban location.



Refuse units within a brick enclosure on a suburban housing estate.

4. Internal Refuse Storage

4.1 There are some circumstances where there is no scope for conventional refuse storage at ground level with direct access to the street. This arises most commonly when premises above shops are converted into flats and there is no ground floor accommodation except for a small entrance hall / stairwell or in large serviced developments where a refuse collection service is provided to residents.

4.2 The storage of refuse within buildings needs to be very carefully considered in order to protect the amenity of residents and other building users. The storage of refuse within sacks is normally the only viable option.

4.3 In these instances:

- A dedicated storage area should be provided either individually for each flat or in a shared communal landing;
- Enclosed storage spaces must have a total ventilation area of not less than 0.2m²; it is essential that fully internal storage area must be very well ventilated. The door should have a tight seal and permanent mechanical ventilation must be provided where there is no opportunity for direct external ventilation.
- Floors and walls should be impervious and finished with robust easy-clean materials.
- Racks should be provided to raise the sacks above floor level.
- Storage space should also be provided for recyclables.

5. Commercial Refuse

5.1 The design principles outlined in sections 1 and 2 are relevant for commercial developments. The Council offers a commercial waste and recycling service.

6. Recycling

6.1 The council provides domestic residents with orange plastic sacks for the storage of their recyclables. Recycling boxes are not used within the borough. Whilst the materials being recycled should generally be clean this is not always the case and therefore it is important that adequate storage provision is provided to discourage vermin etc.

6.2 In large schemes, wheelie bins and Eurobins are used for recycling and are generally stored in the same place as general waste. The same design principles apply to their storage.

7. Incorporated communal refuse storage

7.1 Ideally refuse storage should be free-standing away from the building. However, in schemes where site restrictions do not make this possible the incorporation of refuse stores into the building will be acceptable if an adequate design solution can be achieved.

7.2 Considerations include:

- Opening directly out onto the street for easy collection.
- Convenient siting for both users and refuse collectors.
- Practical internal layouts.
- Amenity (noise, disturbance and smell).
- Materials and detailing which are robust and attractive.
- Community safety, highways safety crime and antisocial behaviour.

7.3 Siting at main entrances may be most convenient for users but needs to be carefully considered to ensure that it is not overly dominant or obtrusive. The residential entrance should be the primary architectural element NOT the refuse store.

7.4 An internal door for residents can be considered in order to obviate the need to leave the building to dispose of refuse. This also means that key holder access to the external doors can be limited to refuse collectors and building managers. Restricting public access from the street reduces the opportunities for crime and antisocial behaviour. Locks and self-closing doors door mechanisms are essential in this respect.

7.5 Enclosed storage spaces must a total ventilation area of not less than 0.2m². All external doors should be vented. Mechanical ventilation must be provided for fully internal refuse stores and their internal doors should be sealed to prevent the spread of odour. Externally vented refuse stores should not immediately adjoin habitable rooms, balconies or sitting out as odours can cause significant problems for adjoining occupiers.

7.6 Headroom / ceiling heights should be a minimum of 2m high. Wall surfaces should be impervious. The layout should allow clear space around the refuse containers and allow for easy manoeuvring. The doors and there frames should be need to be robustly constructed in metal (timber framed doors are not considered suitable to withstand impacts from Euro bins), rubber buffers should be provided on internal walls and inside doors. Door stops and hooks for holding doors ajar should be provided. Taps for wash-down and floor drains should be provided in order to facilitate easy cleaning

7.7 Access routes should be clear of obstruction (bollards and yellow lines should clearly define the access routes) for easy access both for users and refuse collectors. Adequate sight-lines, turning heads and access routes should be provided.



Screened, convenient location away from habitable rooms.



Inadequate screening.



Louvered doors for ventilation.



For individual units storage can be incorporated into porches.



Inadequate ventilation.



Robust metal frames.

Appendix

Capacity (Dimensions in mm)

Wheeled Bins

Capacity (litres)	240	360
Width (lid open)	580	665
Length	740	880
Height	1100	1100

Eurobins

Capacity (litres)	660	1100
Width (lid open)	730	990
Length	1260	1260
Height	1310	1370

Provision

Apartment Block (Developments with less than 10 households)

- Up to 3 Bedrooms: 90L storage for waste and 55L storage for recycling per unit.
- 3 Bedrooms plus: 180L storage for waste and 110L storage for recycling per unit.

Large Estate (Developments with more than 10 households)

- 55L storage for waste and 33L for recycling per bedroom in the development.

Large residential developments require additional storage for redundant household goods, such as furniture and white goods, which are reusable.

Commercial Premises

- Offices: 2 cubic metres storage for every 1,000m² gross floor space.
- Retail: 4 cubic metres storage for every 1,000m² gross floor space.
- Restaurants/Fast Food Outlets: 1.5 cubic metres storage per 20 dining spaces.
- Hotels: 1.5 cubic metres storage per 20 guests

Storage

- The siting of storage areas should allow movement of bins to the nominated collection point without being taken through a building, unless it is a porch, garage or carport or other covered outside space.
- Maximum storage provision for waste and recyclable material is 8 Eurobins or wheeled bins of any type.
- All drains should connect to a system suitable for receiving polluted runoff.
- The compound should be secure to inhibit entry of vermin.
- Doors to the storage area should also be fitted with a hook back facility to prevent damage from bins colliding into doors upon entry or exit.

- Adequate lighting that is easily maintained is required within any enclosed storage area.
- In a residential development where a chute system is proposed, the chute should be a minimum of 45cm in diameter, have a smooth non-absorbent surface, close fitting access doors and be ventilated at the top and bottom.
- The siting of storage areas for waste containers and chutes should not cause householders to carry refuse further than 25m (excluding vertical distance).
- In developments where it is proposed to provide internal waste storage, a waste storage area should be provided on each floor and fitted with suitable racks / containers. The store should also have sufficient space to also accommodate the storage of recyclable material.

Collection

Waste collection operatives should not be required to:

- Carry or move wheeled bins (max 360 litres) more than 25m in total.
- Transport a wheeled bulk waste container more than 10m in total.
- Transport sacks or bins from basements or above ground floor level.
- Routes, storage areas and collection points must not obstruct sight lines for pedestrians, drivers and cyclists or obstruct any utility service points.

The path between the bin storage area and the nearest vehicular access should:

- Be free of steps or kerbs (a dropped kerb may be required).
- Have a solid foundation.
- Have a smooth continuous finish (a cobbled surface is unsuitable for any type of wheeled container).
- Be level, unless the gradient falls away from the housing or chamber, in which case it should not exceed 1:12
- Have a minimum width of 2 metres.

Refuse Collection Vehicles

- Roads providing access to the collection point should have foundations and a hard-wearing surface capable of withstanding a fully laden refuse vehicle of 26 tonnes gross vehicle weight (GVW), with a maximum axle weight of 11 tonnes.
- Roads should have a minimum width of 5m and arranged so that the collection vehicle can continue mainly in a forward direction.
- If turning space is necessary, the road layout should permit a turning circle of 18.5m, kerb to kerb or 21.1m wall to wall.
- Gates or arches on the vehicle route to the collection area should give a minimum clearance of 3.72m width and 4.3m height.

For further technical advice and assistance please refer to Lambeth Streetcare's 'Waste and Recycling Storage and Collection Requirements', 2013.

Checklist

Wheelie bins



- 1 Not stored on the street, footway or road
- 2 Unobtrusive on-site storage location
- 3 Double-skin brickwork enclosure
- 4 No roof or door on enclosure
- 5 Suitable materials and paved floor
- 6 Level route to collection point

External Communal Refuse Stores



- 1 Not stored on the street, footway or road
- 2 Unobtrusive on-site storage location
- 3 Safe and well lit location
- 4 Located well away from habitable rooms
- 5 Double-skin brickwork enclosure
- 6 No roof (unless justified)
- 7 Rubber buffers on internal walls
- 8 Suitable materials and paved floor
- 9 Wash-down tap and floor drain
- 10 Robust metalwork gates with locks and closer
- 11 Adequate amenity screening / planting
- 12 Adequate highways management for collection etc.

Incorporated Communal Refuse Stores



- 1 There is no way to provide an external refuse store
- 2 Convenient unobtrusive location
- 3 Doors away from habitable room windows
- 4 Louvered metal framed doors with locks and closer
- 5 Limited key-holder access
- 6 Good natural ventilation
- 7 Additional mechanical ventilation (if necessary)
- 8 Suitable materials and paved floor
- 9 Wash-down tap and floor drain
- 10 Rubber buffers on internal walls
- 11 Adequate circulation space internally
- 12 Adequate highways management for collection etc.

**This document was jointly prepared by
Lambeth Conservation & Urban Design and Lambeth Streetcare Services**

2013