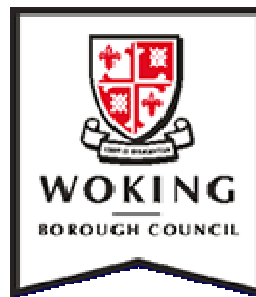


Waste and recycling provisions for new residential developments

Good practice guide for developers



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Good practice

- Proposed waste and recycling management arrangements for developments are required to be submitted to and approved in writing by the Local Planning Authority prior to any development taking place. Such details as may be agreed shall be implemented and retained thereafter. This will ensure space on site is secured for storage of waste receptacles, confirm the appropriate number and style of receptacles will be supplied by the developer and secure details of how the collection will work in practice.
- In the interest of amenity and to ensure a more satisfactory form of development, no development shall take place until details of the siting and means of enclosure of refuse bin storage areas have been submitted to and approved in writing by the Local Planning Authority. The bin stores and facilities shall then be provided in accordance with the details so approved prior to the first occupation of the development and retained thereafter.
- Developers are expected to contribute all the costs of waste and recycling infrastructure where the need for those facilities arises directly from the development. Developers will be required to cover all the costs of providing new bins and home composters required by the residential development.
- New developments should provide safe and convenient facilities for residents to recycle and dispose of their waste.
- Facilities for waste and recycling collection should be designed into new developments.
- An integrated approach to waste and recycling collection helps contribute to sustainable waste management and waste minimisation.

Climate change and waste

The transport, treatment and disposal of waste are all energy demanding activities and contribute to harmful greenhouse gas emissions. Recycling and reuse have become common practice in addressing some of the environmental impacts of waste generation by reducing the need for raw materials extraction and processing and the demand for landfill space.

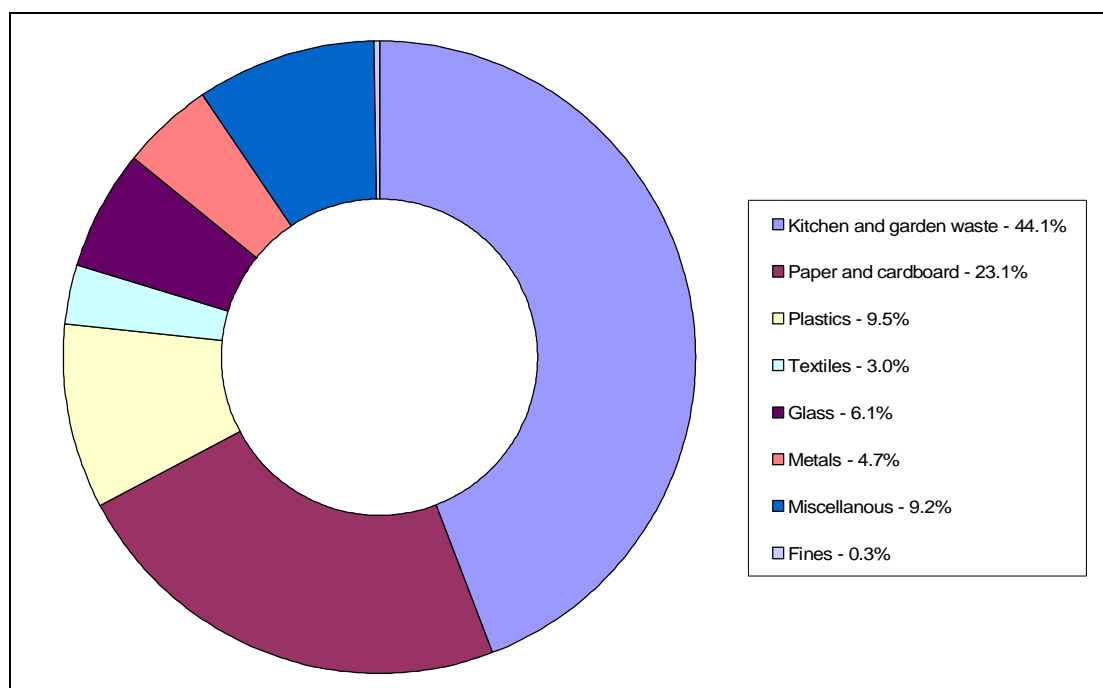
Currently, volumes of municipal solid waste in the South East of England are still landfilled. Local authorities are therefore charged with increasing the amount of waste that is recycled and have been set annual targets by the central government. In addition to central government targets, Surrey's Joint Municipal Waste Management Strategy constitutes a 20 year plan for the future of waste management in the County. Within this strategy a recycling target of 70% has been set for the region.

Increased convenience plays a major role in encouraging householders to recycle more of their waste and the provision of recycling facilities at home is an important element of Woking's waste minimisation strategy. The design of new residential developments should take into account the waste management requirements with the aim to encourage recycling and composting.

Household waste in Woking

Woking residents produce around 33,000 tonnes of household waste each year. Similar to the national average, Woking's households waste is made up of the following materials:

Household waste composition in Woking¹



The vast majority of these materials can be reused, recycled or composted.

Woking Borough Council currently operates a twin wheeled bin system for residents of houses – one blue lidded wheeled bin for mixed dry recyclables and one black wheeled bin for the remaining refuse. The bins are emptied on alternate weeks. Blocks of flats are also provided with separate colour-coded sacks or large capacity bins. The mixed dry recyclable materials collected from homes include newspapers and magazines, cardboard, glass bottles and jars (all colours), plastic bottles, aluminium biscuit tins and foil (foil rolled into a 10cm ball), metal cans and tins.

In the context of Woking's Climate Change Strategy, Woking promotes the source separation of the organic element of the waste stream, to maximise recycling through composting;

The Council operates a separate, weekly collection of food waste. Residents use two containers; a silver 7-litre caddy which is designed for storing on the kitchen worktop, and one 23-litre green collection bin for indoor or outside use, it has a lockable lid which means it will be easily stored outside. When the kitchen caddy is full, the contents are transferred into the green collection bin. The green collection bin is placed at the property boundary for emptying each week.

The Council offers householders an 'opt-in' subscription based garden waste collection service using wheeled bins. The bins are collected fortnightly. The Council also promotes home composting.

¹ Based on Woking Borough Council, *Waste Management Strategy 2002*, p.18

Storage capacity for refuse and recyclables

Houses

Internal storage capacity

Consideration needs to be given to providing sufficient space in the kitchen or another convenient location within each house for the storage of recyclables and residual waste.

Refuse	60 litre bin
Mixed dry recyclables	60 litre bin, box or bag
Compostable kitchen waste	7 litre kitchen caddy

External storage capacity

A small paved area should be provided for storing at least four containers;

- One black wheeled bin for refuse.
- One blue lidded wheeled bin for mixed dry recyclables.
- One green wheeled bin for garden waste.
- One 23 litre green food waste collection bin.

Woking Borough Council operates a curtilage (boundary of property nearest the adopted highway) collection policy and it is the responsibility of the householder to place their containers at the curtilage for collection and return thereafter. For waste containers up to 240 litres, steps should be avoided between the container store and collection point. The collection point at the property boundary should also be a hard standing. Road access to the individual containers must be to within 25 metres.

Residents can purchase replacement or additional bins according to the following guidelines:

Number of people in household	Wheeled bin provision
1	140 or 240 litre
2	140 or 240 litre
3	240 litre
4	240 litre
5	240 litre (or exceptionally + 140 litre)
6	240 litre + 140 litre
7	240 litre + 140 litre
8	240 litre + 140 litre
9 or more	480 litre (2 x 240 litre)

Bins of different capacity have the following approximate sizes:

Capacity	Height (h)	Depth (d)	Width (w)
140 litres	1,100mm	555mm	505mm
240 litres	1,100mm	740mm	580mm
23 litre food waste bin	405mm	400mm	320mm

Composting

Home composting areas should be designed into all new housing developments, as separation of waste at source is recognised as the most sustainable method of treatment. This should include sites where management contracts are in place and these should use on-site composting of garden waste.

In houses with gardens, an area with composting bins should be provided. Ideally, composting bins are located away from the house. Composters should normally sit directly on the soil to allow access for worms and microbes and to ensure drainage.

Rural properties

Collection vehicles will not enter private driveways to collect domestic waste. In rural areas dwellings may be some distance from the public road and provision should be made for a designated collection point at the roadside. The occupier will need to present their bins at this point. In these circumstances a road-end collection point could be designed to store the bins awaiting collection.

Apartments

Internal storage capacity

As with houses, consideration needs to be given to providing sufficient space in the kitchen or another convenient location within each apartment for the storage of recyclables and residual waste. Storage space for compostable kitchen waste may be provided, for example on balconies.

Refuse	60 litre bin
Mixed dry recyclables	60 litre bin, box or bag
Compostable kitchen waste	7 litre kitchen caddy

External storage capacity

Apartment block developments (low, medium and high-rise) are expected to incorporate into their design a designated compound for the storage of refuse and recycling bins. The compound should be situated at ground level within the boundaries of the development. Bin compounds should be provided to house both refuse and recycling bins.

Apartment buildings may apply the following guide where communal facilities are used:

Refuse ²	Wheeled bins in accordance with the capacity for houses. Or, one 1,100 litre wheeled black eurobin with black lid per every five households
Mixed dry recyclables ³	Wheeled bins in accordance with the capacity for houses. Or, one 1,100 litre wheeled black eurobin with blue lid per every five households
Compostable kitchen waste ⁴	One 23 litre green collection bin per household, and/or one 140 litre black wheeled bin with a brown lid for every 8 households.

Bins of different capacity have the following approximate sizes:

Capacity	Height (h)	Depth (d)	Width (w)
660 litres	1,250mm	850mm	1,370mm
1,100 litres	1,340mm	950mm	1,220mm
23 litre food waste bin	405mm	400mm	320mm
140 litre wheeled bin	1,100mm	555mm	505mm
7 litre kitchen caddy	232mm	229mm	271mm

² The one-to-five ratio is to be used as a **guide only**. The number of eurobins required could be increased or decreased according to the number of residents per apartment and/or the number of properties with greater or less than two bedrooms per unit.

³ The one-to-five ratio is to be used as a **guide only**. The number of eurobins required could be increased or decreased according to the number of residents per apartment and/or the number of properties with greater or less than two bedrooms per unit.

⁴ The one-to-eight ratio is to be used as a **guide only**. The number of wheeled bins required could be increased or decreased according to the number of residents per apartment and/or the number of properties with greater or less than two bedrooms per unit.

Bulky waste storage

As a Waste Collection Authority (WCA) the Council is required to arrange for the removal free of charge of non-prescribed i.e. 'non chargeable' household waste. This does not, for example, include the removal of litter left by residents or animals or the general cleaning of refuse storage areas. This together with arranging the removal of 'chargeable' waste such as bulky or heavy items, furniture, builders/DIY materials, oil, for sale boards or garden waste is the responsibility of occupiers. Collections of bulky household waste can be arranged through the Council's special waste collection service for which there is a charge. For further information about special waste collections, please telephone Woking Borough Council on 01483 755855.

Composting

Home composting areas should be designed into all new housing developments including the communal gardens space in apartment developments, as treatment of waste at source is recognised as the most sustainable method of treatment. This should include sites where management contracts are in place and these should use on-site composting of garden waste.

Communal composting facilities should be provided for apartment developments. Communal 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.

Ease of access for residents

The refuse and recycling facilities should encourage residents living in apartments to dispose of their refuse responsibly and to recycle as much of their household waste as possible. Bin compounds must therefore be conveniently located for residents and should be no further than 30 metres from the entrance door.

Internal bin rooms should be located near lifts or stairs providing that the requirements for ease of access for waste collection operatives listed below are also met. Refuse chute systems for flatted dwelling houses would not be encouraged unless it could be demonstrated that the system would accommodate the Council's twin-bin recycling and food waste collection services.

Stairs or ramps may be provided for Eurobins to ensure ease of access for elderly or disabled persons.

Ease of access for collection operatives

Waste collection operatives will move the communal refuse and recycling bins from their permanent storage compound to the collection point. Access points for refuse vehicles should not be more than 10 metres from bin compounds. There should be no need to wheel bins over steps and drop kerbs must be provided where necessary.

The internal bin compound should be sited so that Eurobins can be taken to the collection point without being taken through a building or across designated parking spaces.

Vehicle access

The access road must be capable of safely accommodating a vehicle weighing 28 tonnes (when fully loaded) of the following dimensions: 9.8 metres length x 4 metres high x 2.5 metres wide. Developers should also ensure that manhole covers are strong enough to withstand the weight of the vehicle using a heavy-duty 'Grade A' type.

Where collection vehicles have to enter developments, there should be sufficient on-site turning circles or the site layout must allow for the collection vehicle to manoeuvre in a Hammerhead T Form. An example of this might be to ensure the ability of refuse vehicles to enter or manoeuvre in the vicinity of the site without being prevented from doing so by cars parked close to the entrance which would otherwise prevent refuse vehicle collection movement.

Vehicles should never have to reverse onto a highway to make a collection.

Doors/ gates to any waste compound are not permitted to open out over a public highway.

If it is proposed to locate waste and recycling containers in compounds in a basement area inaccessible to a standard waste collection vehicle, a suitable ground floor collection area must be indicated on drawings submitted for approval, from where the containers would be collected and returned.

Design considerations for communal bin compounds

The Council provides an alternate weekly collection service for the collection of refuse and recyclables. The Council will not provide weekly collections and therefore any communal bin compound must accommodate the required number of containers.

For apartment developments, developers should ensure that the disposal of general waste and recyclables within the communal bin compound is equally convenient. Where there are to be disparities, disposing of general refuse should be marginally easier than the disposal of recyclables to avoid contamination of recyclables with refuse. If possible, the refuse disposal point should be the first encountered when residents enter the bin compound.

Visual impact

External compounds should be constructed of materials in keeping with the surroundings and screened by planting with adequate provision of soil if appropriate.

Noise control

Communal bin compounds should be sufficiently far from housing units (at least 5 metres) so as to reduce the impact of noise during bin use and collection. Eliminating the need for collection vehicles to reverse will also assist in keeping noise to a minimum.

Signage indicating reasonable hours of use for households should be installed.

Odour/vermin control

Internal bin compounds should be well ventilated and have a smooth easily cleanable floor. Air fresheners and vermin boxes may be installed. External compounds should be open and also have a concrete floor.

Suitable drainage, with water discharging into a sewered drain, should be installed to allow the washing of bins. Nearby access to the water mains should also be provided.

Security

The design of communal bin compounds should allow easy access to residents but not to non-residents. External bin compounds should be located out of sight of the main road where possible.

Developers may consider an open rail gate for internal bin rooms so that residents can see inside the bin room before entering it. Similarly, the walls of external compounds should only be slightly higher than the bins and have no roof so that residents can see who is inside the compound before entering.

Adequate lighting needs to be provided to allow the usage of the bin store at all times.

Bin room layout and access

Any enclosure, compound or storage area should allow for filling and emptying and provide clear space of 15cm between containers. Each individual container should be accessible, with collection operatives able to facilitate emptying without the need to remove other containers.

Separate rooms should be provided, clearly identified using appropriate signage, for the storage of waste which cannot be recycled, and waste which can be recycled.

A rubber buffer should be affixed to the surrounding wall and placed at the appropriate height to prevent damage to the storage area walls and unnecessary noise.

All doors should open outwards. Double doors with a clear opening of at least 1,500mm and a facility to hold open the doors during collection should be installed.

Management considerations

It is important to establish and delegate the responsibility for the tasks involved in ensuring an effective waste management system in apartment developments. All apartment developments will be required to have a Housing Management arrangement in place.

The key waste management responsibilities of the Housing Management organisation are:

- Keeping residents informed of waste facilities
- Maintenance of bins and the communal bin compound

Keeping residents informed

Communal bin compounds should have a notice showing which properties are entitled to use the facilities.

Additional signage to indicate the materials collected as part of the recycling collection scheme will be required. Alternatively, if the erection of posters within the bin store is not possible due to space or other restrictions, bin stickers may be used.

Where the Housing Management organisation holds tenants' induction schemes, these should include a briefing on the use of waste and recycling facilities.

The Council will issue a leaflet on the correct use of the waste and recycling facilities and the materials collected as part of the scheme. Tenants' handbooks should include a section on the correct use of refuse and recycling facilities.

Housing Management organisations should encourage Tenants' Association to take on the responsibility for enforcing residents' compliance with the waste management arrangements.

Maintenance of bins and the communal bin compound

Housing Management organisations will be responsible for keeping the communal bin compound clean and safe, and for the general upkeep of containers, including cleansing.

Coverage of costs of waste and recycling infrastructure

Developers are expected to contribute all the costs of waste and recycling infrastructure where the need for those facilities arises directly from the development. Developers will be required to cover all the costs of providing new bins and home composters required by the residential development.

Charge for containers:

Capacity	Guide Price 2010/11 (each) *
140 or 240 litre wheeled bin	£45
660 litre container	£200
1,100 litre container	£250
7 litre food waste kitchen caddy	£14
23 litre food waste collection bin	£16.50
7 litre kitchen caddy and 23 litre collection bin (set)	£18

*Guide price subject to change

Capacity at each household is subject to Council policy. Purchasing through the Council will ensure that containers are of sufficient quality and compatible with the refuse collection vehicle's bin lifting equipment. Other containers offer no assurance that they will be of the required quality or compatible with our bin lifting equipment and therefore a collection will not be guaranteed.

Due to the high number of containers ordered by the Council, a reduced price per unit is available when compared to purchasing directly from the manufacturer.

All wheeled bins must be in-keeping with the Council's specification, including signage and colour, to ensure the waste and recycling message is consistent:

- a) Comply with British Standard EN 840 1 standards.
- b) Compatible with identification and weighing systems.
- c) Be fitted with an electronic chip and chip nest in accordance with RAL-GZ 951/1 standards.
- d) Continuous handle on the body.
- e) Contain a minimum of 25% recycled material.
- f) Be guaranteed for a minimum of 5 years in normal usage.
- g) Be fitted with a close fitting lid, sufficiently tight fitting to prevent a credit card being pushed between the body and the lid at any point without moving the lid.
- h) Be fitted with a programmable microchip under the comb and appropriate identification labelling on the body.
- i) Be of the Council's approved colour scheme.
- j) The lid of each wheeled bin must carry an A4 size screen printed message detailing the contents allowed. Each colour of wheeled bin will carry a different message, details on the wording and colour are available from the Council.
- k) The body of each wheeled bin must carry the Council Logo and name on the front face. Details on the method, colour and style of printing are available from the Council.

All food waste bins must be in-keeping with the Council's specification, including signage and colour, to ensure the waste and recycling message is consistent:

- a) Designed for the kerbside collection and short term storage of domestic food waste as part of a local authority collection service, easily cleaned and the entire container has the minimum possible dirt traps.
- b) 23 litre caddy Green in colour
- c) 7 litre kitchen caddy silver in colour
- d) locking lid and rotating carry handle
- e) Minimum 5 year guarantee for normal usage
- f) Durable polypropylene or other similar approved material
- g) Printed in one colour
- h) Contain a minimum 25% recycled material

- i) The body of each caddy must carry approved artwork. Details of the method, colour and style of printing are available from the Council.

Appendix 1

Building regulations part H6: Solid Waste Storage⁵

The Requirement

This Approved Document, which takes effect on 1 April 2002, deals with the following Requirement which is contained in the Building Regulations 2000 (as amended by SI 2001/3335).

<i>Requirement</i>	<i>Limits on application</i>
Solid waste storage	
H6. (1) Adequate provision shall be made for storage of solid waste.	
(2) Adequate means of access shall be provided -	
(a) for people in the building to the place of storage; and	
(b) from the place of storage to a collection point (where one has been specified by the waste collection authority under section 46 (household waste) or section 47 (commercial waste) of the Environmental Protection Act 1990 (b) or to a street (where no collection point has been specified).	
(b) 1990 c. 43	

Guidance

Performance

In the Secretary of States view the requirements of H6 will be met if the solid waste storage is:

- a) designed and sited so as not to be prejudicial to health;
- b) of sufficient area having regard to the requirements of the waste collection authority for the number and size of receptacles under Sections 46 and 47 of the Environmental Protection Act 1990;
- c) sited so as to be accessible for use by people in the building and of ready access for removal to the collection point specified by the waste collection authority under Sections 46 and 47 of the Environmental Protection Act 1990.

Introduction to provisions

0.1 The efficacy of a refuse storage system is dependent on its capacity and the ease of removal in relation to the collection service provided by the waste collection authority.

0.2 The waste collection authority has powers under section 46 (Receptacles for household waste) and section 47 (Receptacles for commercial or industrial waste) to specify the type and number of receptacles to be used and the location where the waste should be placed for collection. Consultation should take place with the waste collection authority to determine their requirements.

0.3 The Requirements of the Building Regulations do not cover the recycling of household and other waste. However H6 sets out general requirements for solid waste storage. Guidance is included in this section (H6) regarding arrangements

⁵ ODPM, http://www.odpm.gov.uk/index.asp?id=1131742#P1944_216471

for separate storage of waste for recycling should it be necessary. This is to support requirements which may be made under Sections 46 and 47 of the Environmental Protection Act 1990 and to support national initiatives on recycling and waste reduction.

Domestic developments

Capacity

1.1 For domestic developments space should be provided for storage of containers for separated waste (i.e. waste which can be recycled is stored separately from waste which cannot) and having a combined capacity of 0.25m³ per dwelling or such other capacity as may be agreed with the waste collection authority. Where collections are less frequent than once per week, this allowance should be increased accordingly.

1.2 Low rise domestic developments - In low rise domestic developments (houses, bungalows and flats up to 4th floor) any dwelling should have, or have access to, a location where at least two movable, individual or communal waste containers, meeting the requirements of the waste collection authority, can be stored.

1.3 Where separate storage areas are provided for each dwelling, an area of 1.2m x 1.2m should be sufficient to provide for storage of waste containers and provide space for access.

1.4 Where communal storage areas are provided space requirements should be determined in consultation with the waste collection authority.

1.5 High Rise domestic developments - In multi storey domestic developments dwellings up to the 4th floor may each have their own waste container or may share a waste container.

1.6 Dwellings above the 4th storey may share a single waste container for non-recyclable waste fed by a chute, with separate storage for any waste which can be recycled. Alternatively storage compounds or rooms should be provided. In such a case a satisfactory management arrangement for conveying refuse to the storage should be assured.

1.7 The use of 'Residents Only' recycling centres (areas where residents may bring their recyclable waste for storage in large containers e.g. bottle banks) in large blocks has been found to be effective in some areas.

Siting

1.8 Storage areas for waste containers and chutes should be sited so that the distance householders are required to carry refuse does not usually exceed 30m (excluding any vertical distance). Containers should be within 25m of the waste collection point specified by the waste collection authority.

1.9 The location for storage of waste containers should be sited so that unless it is completely unavoidable, the containers can be taken to the collection point without being taken through a building, unless it is a porch or garage, or a carport or other open covered space (This provision applies only to new buildings except that extensions or conversions should not remove such a facility where one already exists.).

1.10 For waste containers up to 250 litres, steps should be avoided between the container store and collection point wherever possible and should not exceed 3 in number. Slopes should not exceed 1:12. Exceptionally this may be exceeded provided that the lengths are not excessive and it is not part of a series of slopes. (See also Approved Document K1 Section 2). For storage areas where larger containers are to be used steps should be avoided. Where this is not otherwise possible, the storage area should be relocated.

1.11 The collection point should be reasonably accessible to the size of waste collection vehicles typically used by the waste collection authority.

1.12 External storage areas for waste containers should be away from windows and ventilators and preferably be in shade or under shelter. Storage areas should not interfere with pedestrian or vehicle access to buildings.

Design

1.13 Where enclosures, compounds or storage rooms are provided they should allow room for filling and emptying and provide a clear space of 150mm between and around the containers. Enclosures, compounds or storage rooms for communal containers should be a minimum of 2m high. Enclosures for individual containers should be sufficiently high to allow the lid to be opened for filling. The enclosure should be permanently ventilated at the top and bottom and should have a paved impervious floor.

1.14 Communal storage areas should have provision for washing down and draining the floor into a system suitable for receiving a polluted effluent. Gullies should incorporate a trap which maintains a seal even during prolonged periods of disuse.

1.15 Any room for the open storage of waste should be secure to prevent access by vermin. Any compound for the storage of waste should be secure to prevent access by vermin unless the waste is to be stored in secure containers with close fitting lids.

1.16 Where storage rooms are provided, separate rooms should be provided for the storage of waste which cannot be recycled, and waste which can be recycled.

1.17 Where the location for storage is in a publicly accessible area or in an open area around a building (e.g. a front garden) an enclosure or shelter should be considered.

1.18 High rise domestic developments where chutes are provided they should be at least 450mm diameter and should have a smooth non-absorbent surface and close fitting access doors at each storey which has a dwelling and be ventilated at the top and bottom.

Non domestic developments

1.19 In other types of development, and particularly where special problems such as high density developments, influence the provision of a system, it is essential that the waste collection authority is consulted for guidance on resolving the following points.

- a) The volume and nature of the waste and the storage capacity required, based on the frequency of collection and the size and type of waste container.
- b) Any requirements for segregation of waste which can be recycled.
- c) The method of waste storage, including any on-site treatment proposed, related to the intended layout and building density.
- d) The location of waste storage areas, waste treatment areas and waste collection points and the access to these locations for operatives and vehicles.
- e) Hygiene arrangements in the waste storage and waste treatment areas.
- f) Fire hazards and protection measures.

1.20 Waste storage areas should have an impervious floor and should have provision for washing down and draining the floor into a system suitable for receiving a polluted effluent. Gullies should incorporate a trap which maintains a seal even during prolonged periods of disuse.

1.21 Any room for the open storage of waste should be secure to prevent access by vermin. Any compound for the storage of waste should be secure to prevent access by vermin unless the waste is to be stored in secure containers with close fitting lids.

1.22 Waste storage areas should be marked and signs should be provided.

Alternative approach

1.23 Recommendations and data on these items can be found in BS 5906:1980 Code of practice for storage and on-site treatment of solid waste from buildings. The relevant clauses are Clauses 3 to 10, 12 to 15 and Appendix A.

Note: BS 5906:1980 does not contain guidance on recycling. It is currently being updated and it is hoped that the revised edition will include guidance on this aspect.