

# Reading Borough Council



## Waste Management Guidelines for Property Developers, Architects, Planners and Contractors



[www.reading.gov.uk](http://www.reading.gov.uk)



**Reading**  
Borough Council  
Working better with you

# Contents

## Introduction

- 1.0 This Document
- 1.1 The Waste Hierarchy
- 1.2 Waste Minimisation

## Individual Houses & HMOs

- 2.0 Collection Services Overview
- 2.1 Internal Storage
- 2.2 External Storage - Capacity
- 2.3 External Storage - Design Features
- 2.4 Recycling Facilities for larger developments

## Purpose-Built Flats

- 3.0 Collection Services Overview
- 3.1 Internal Storage
- 3.2 External Storage - Capacity & Bins
- 3.3 External Storage - Location
- 3.4 External Storage - Dimensions
- 3.5 External Storage - Design Features
- 3.6 External Storage - Access and Pulling Distances
- 3.7 Designated Collection Points
- 3.8 Management-Provided Internal Waste Collection Services

## Mixed-Use & Commercial Developments

- 4.0 Commercial Waste
- 4.1 Design of Waste Storage Facilities
- 4.2 Segregation of Commercial and Household Waste
- 4.3 Waste Storage Capacity
- 4.4 Waste Collection Frequency
- 4.5 Recycling
- 4.6 Compactors
- 4.7 Underground Eurobin Chambers with Lifting Mechanisms

## Large-Scale Developments

- 5.0 Large-Scale Developments

## Alternative Waste Management Technologies

- 6.0 Community Composting
- 6.1 Food Waste Disposer (In-sink macerators)
- 6.2 Automated Vacuum Collection Systems

## Appendices

- A. Waste Container Dimensions
- B. Vehicle Dimensions and Specifications
- C. Printable Recycling Information, for your moving in guides
- D. Reading Borough Council Signage Examples

# Introduction

## 1.0 This Document

This document provides architects, developers, landlords and managing agents with guidance and information about Reading Borough Council's requirements for the management of waste in developments.

It encourages developers to consider waste management and minimisation at the design concept stage. This will ensure that the correct capacity and type of waste bins are located in the right place in new residential property developments, conversions of offices to flats under permitted development rights, commercial and mixed-use units in the Borough.

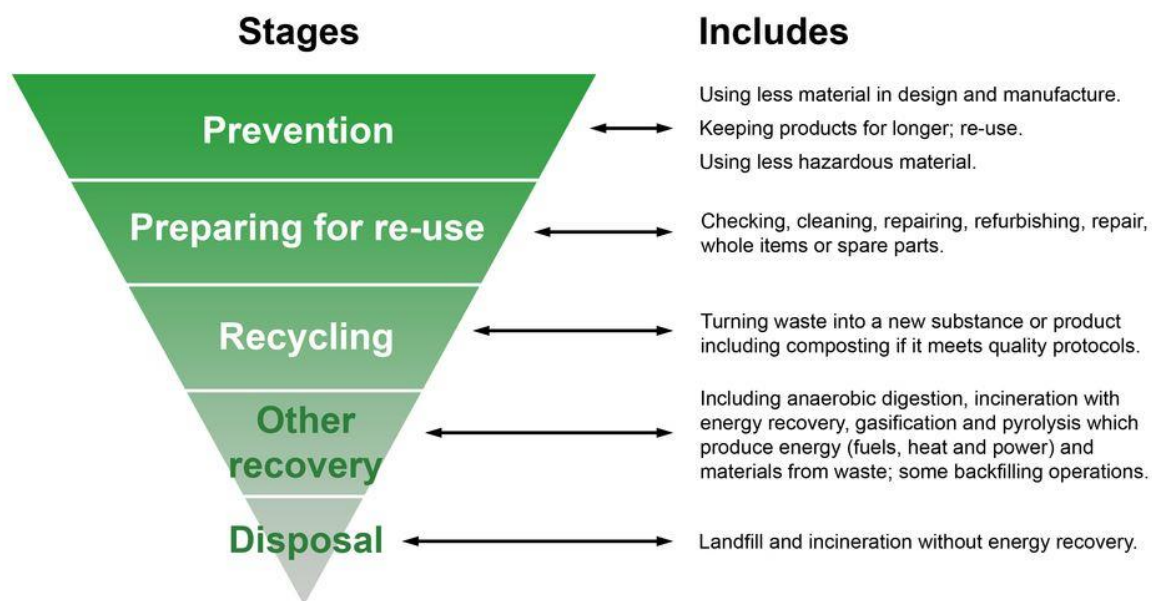
The requirements for managing waste are different according to the type and size of each development. Architects and developers should also refer to '[Approved Document H6](#)' referring to 'waste disposal' of the Building Regulations 2010 and '[British Standards EN BS 5906:2005](#)'; [Code for Sustainable Homes -DCLG, Dec 2006](#); [The Environmental Protection Act 1990](#); [The Housing Act 2004](#) and [The National Waste Management Plan for England 2013](#).

These guidelines do not cover the requirements for managing construction or industrial waste. These notes are for guidance only and each individual scheme will need to be submitted for approval by the Council.

## 1.1 Waste Hierarchy

All aspects of waste management are governed by the following hierarchy:

### The Waste Hierarchy



The waste hierarchy is the basis of Reading Borough Council's Waste Minimisation Strategy 2015-2020.

[http://www.reading.gov.uk/media/2525/WM-Strategy/pdf/WM\\_Strategy.pdf](http://www.reading.gov.uk/media/2525/WM-Strategy/pdf/WM_Strategy.pdf).

Architects and developers must make provision for waste to be reduced or reused prior to being put out for a recycling or refuse collection.

In Reading the use of a co-mingled recycling collection system (where different materials are collected together and separated later) has been in place since 2006 when Reading introduced alternate weekly collections of household waste.

## 1.2 Waste Minimisation

Reading adopted its first Waste Minimisation Strategy in 2015 in order to meet the EU Waste Directive target of a 50% recycling rate. The following requirements relating to waste and recycling arrangements for all new housing developments apply with the emphasis on waste minimisation and recycling. We require architects and developers to properly apply the waste hierarchy in new developments by taking steps to encourage a reduction in the amount of waste that is presented for collection. This is in addition to more established strategies for maximising recycling, such as making internal and external space available for segregation of recyclable items from other waste.

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

- Provide on-site composting facilities for all developments, including individual compost bins in private gardens and community composting sites on larger developments. Information on how to compost materials at home, and the benefits of doing so, should be provided in all new residents' packs.
- Engage with community and third sector organisations to collect reusable furniture items from bulk waste stores.
- Provide and manage a communal tool and equipment store/service for residents in blocks of flats, including vacuum cleaners, power drills etc. This will help with storage pressure in the flats, as well as reducing the need for residents to buy products that will actually be used very little.
- Encourage reuse and sharing of items amongst neighbours by providing a physical or online noticeboard. This could include rarely-used kitchenware and cleaning appliances, as well as books, DVDs and other such products.
- Select durable, high quality materials and fitted appliances for new homes and businesses.
- Install in-sink food waste disposal units (macerators), or allow for their future installation through the choice of appropriate sink designs and provision of under-sink power supplies in all new kitchens. See Section 7.4 for more information.

Architects and developers are encouraged to consult with the Council's Waste Minimisation Officers within the Neighbourhood Services team at the earliest opportunity in the design process. Proposals for waste storage and collection must meet the necessary requirements set out within this document. Developers of mixed-use or commercial sites may also need to consult with other waste collection providers to ensure that their requirements are met.

# Individual houses, HMOs

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

## 2.0 Collection Services Overview

Reading Borough Council provides an alternate weekly collection of general waste and recycling. One week recycling is collected and on the alternate week general waste is collected.

The preferred method of waste collection is from wheeled bins that are presented for collection at the kerbside. For residual waste collections, Reading Borough Council will collect one bin per property to encourage residents to reduce, reuse and recycle their waste. In addition, no side waste will be collected.

The following materials are collected for recycling:

- Mixed paper and card
- Plastic bottles
- Food tins and drink cans
- Aerosols

The recycled materials are co-mingled, which means they can all be placed in the same bin without any need for further segregation. They are then taken to the Materials Recovery Facility (MRF) where they are sorted.

Residents can purchase a green bin or sack for garden waste. Garden waste is collected fortnightly on the same week as recycling collections.

Visit our website [www.reading.gov.uk/recycling](http://www.reading.gov.uk/recycling) for more information.

## Special Bulky Household Waste Collections

There are some types of waste which Reading Borough Council will collect from households by special arrangement for a charge.

If residents have an item in good condition that can be reused, they can donate it to someone who could re-use it, either by using a group such as [Freecycle Reading](#) or [Freegle Reading](#) or donating it to charity (many of which will collect from your property).

If the items cannot be reused and are too big for the grey bins (e.g. old furniture, appliances, prams/pushchairs, exercise bikes) - The residents can either be taken to the Household Waste and Recycling Centre, Island road, Reading, or pay Reading Borough Council to collect it. Further information on Special Collections can be found on our website <http://www.reading.gov.uk/bulkywastecollections>.

## Garden Waste

We do not provide large communal bins for green waste. Residents that will be living in properties such as flats and that will have their own garden, can purchase a green bin. Please see our website for further information.

<http://www.reading.gov.uk/bins>

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

## Clinical Waste

Residents can put general hygiene waste (incontinence pads, catheter and stoma bags, bed pan contents and liners etc.) into their general waste bin.

If the resident is being treated by a healthcare professional in their own home, the healthcare professional should take the waste away with them.

If the resident is self-treating a medical condition and has healthcare/clinical waste which could potentially carry an infection (e.g. needles, syringes or other sharp instruments, any waste which includes blood or body fluids, human tissue, swabs or dressings, drugs or other pharmaceutical products), Reading Borough Council can collect this free of charge. The resident will need a referral from their hospital, doctor, and district nurse or health visitor. Anything that cannot be taken on our kerbside collections can be taken to the Household Waste and Recycling Centre in South Reading.

Glass can be recycled at various bring sites around the borough. Reading Borough Council does encourage developers of larger residential sites to incorporate an area for either underground or above ground glass recycling, tetra Pak (cartons) silver foil and various charity banks. These can be arranged with our waste contractor FCC Environment via the Re3 partnership on 0800 988 3023.

### 2.1 Internal Storage

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

Developers are also encouraged to install in-sink food waste disposal units to help reduce the amount of waste being presented for collection.

### 2.2 External Storage - Capacity

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

For houses, it is recommended that space is allocated for 3 x 240-litre bins or 1 x 360 and 2 x 240 litre wheeled bins. The dimensions of all standard bin sizes are included in Appendix A and their costs. Reading Borough Council can supply these bins. If there is a large amount of bins required for the development, please be advised that there is an approximate 7-week turnaround from order date. If bins are to be purchased from another source, then we require that they are the colours specified in Appendix A.

Where a street-level property is being subdivided into flats, please contact the Waste Minimisation Officer first to discuss whether it is appropriate to allow for each dwelling to have its own refuse and recycling bins, or to move the property onto a communal waste storage system using larger wheelie bins or Eurobins.

**It shall be the responsibility of the developer, managing agent or landlord to purchase the necessary bins for external waste storage, and ensure that these are in place before residents move into new properties.**

## 2.3 External Storage - Design Features

The design of the front garden or yard should enable the bins to be stored in a shaded position away from windows. The bins must not intrude onto the street and must be contained within an appropriate front wall, fence or hedge, or alternatively, within a dedicated and suitably designed structure within the boundary of the premises. Bin storage areas should be located in a suitable area to minimise nuisance to adjoining properties.

Bin storage areas are not the responsibility of the Council. The storage areas must comply with the following:

- Bin stores must be easily accessible from the public highway.
- The distance that residents must travel to use the store must not exceed 30 metres, excluding vertical distance (Building Regulations 1991 H4). The distance that refuse crews must travel to collect from the store must not exceed, 15 metres for any wheeled container up to 240-litres, and 10 metres for any container greater than 240-litres
- Access routes from bin stores to collection points must have a solid, smooth, level, non-slip surface.
- There must be no steps or kerbs between the bin store and the highway. It is not acceptable to require full bins to be manoeuvred over gravel or on any gradient.
- The width of the access route from the bin store to the adopted highway should comfortably accommodate the bins provided. The road surface should be of suitable quality for access by a refuse freighter.
- A bin store should provide a free space 30" x 32" x 48" high (760mm x 810mm x 1220mm) around the bins. This will allow easy movement. The space must not be obstructed.
- Entrance to the bin store must be wide enough to comfortably allow bins to be removed for emptying and replaced. The bin area should be large enough to manoeuvre bins with free space around the bins. Please see [Appendix A](#) for bin dimensions.
- Doors or gates must be provided to prevent litter from escaping from the bin store area. They must be able to be secured in the open position.
- All communal bin areas must be provided with adequate lighting with secure cables and a water supply.
- Bin storage areas for flats must have a combination lock with access for residents of flats and waste collectors. (For Communal Bin stores please see Section 3)
- In all cases there must be sufficient space for the occupants to easily access both their refuse and recycling bins to deposit waste. It must be possible for the lids of all bins to be fully opened.
- There should be clearance of 150mm around and between each bin to enable ease of movement.

- Each bin should be able to be used and moved without having to move another bin first.
- Adequate provision must be made for the elderly, disabled and families with young children. The design of the front of the premises should enable residents to set out all of the required containers for collection on the same day while maintaining sufficient access to the property entrance for a wheelchair or double- buggy.
- Appropriate access for collection crews must also be included in the design of the outside space. This should involve solid flat surfaces, with a maximum of only 1 step down to the pavement from the bin storage/presentation point. There must be no steps up from this position). The distance from the presentation point to where the collection vehicle can safely stop should be no more than 15m.

## **2.4 Recycling Facilities for Larger developments**

With larger developments of over 100 units and where there are likely to be a mix of blocks of flats, residential housing and/ or retail areas, we would ask that developers are required to install an area where bring banks can be situated for the collection of glass, textiles and other materials.



# Purpose-Built Flats

This section provides information and guidance on waste storage and collection requirements for purpose-built blocks of flats, where residents share communal waste facilities. The guidance given in this section on the design, size and location of bin stores will be applicable for other types of facility as well, including commercial units and housing developments without individual bins.

There is specific information provided in Section 4.7 for sites where waste containers are to be stored underground.

In new developments, and particularly larger-scale sites with 100 units or more, it may be appropriate for alternative on-site waste treatment and management solutions (See Section 5) to be built into the design. This will help to reduce the impact on the local environment and reduce the requirements for waste storage capacity.

Architects and developers should be aware that Reading Borough Council does not offer a compacted waste collection service. At sites where compaction is used, waste collection and disposal will need to be arranged and paid for through a private contractor that is able to offer an appropriate service. More information on compaction is available in Section 4.6

## 3.0 Collection Services Overview

Reading Borough Council currently provides weekly or fortnightly general waste collection services for residents living in purpose-built blocks of flats. Separate collections of recycling are undertaken on a fortnightly basis.

### 3.1 Internal Storage

To enable and encourage occupants of new residential units to recycle their waste, developers should provide adequate internal storage, usually within the kitchen. This is for the separation of recyclable materials from other waste. Developers are also encouraged to install in-sink food waste disposal units to help reduce the amount of waste being presented for collection. Please see Section 4.7 for more information.

### 3.2 External Storage - Capacity & Bins

Reading Borough Council will undertake one fortnightly collection of general waste, (unless otherwise agreed). Recycling collections will be provided on a fortnightly basis. The correct capacity for waste storage for developments can be found in [Appendix A](#).

If the development is for Student accommodation, please contact the Waste Minimisation Officer for advice.

**It is the responsibility of the developer to purchase the necessary bins for external waste storage, and to ensure that these are in place before residents move into new properties.**

In order to ensure some continuity Reading Borough Council can supply the correct bins, labels and bin store recycling signage. Please see Appendix A and C for costings. If the developer wishes to purchase their own bins from another source,

we insist that the colours Grey for Landfill and Green for Recycling are adhered to and that the sizes are those specified in Appendix A

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

### **3.3 External Storage - Location**

For purpose-built flats it is necessary to provide an appropriate storage area for refuse and recycling containers. These must be an integral part of any new development, with appropriate design, capacity, layout, access and signage. Communal bin storage areas should be clearly identified on plans, and the space allocated to them must be guaranteed for the purposes of waste storage. Communal bin storage areas must be located within the footprint of the development, and ideally be at ground level. However, if an underground storage solution is planned for standard wheeled bins (such as in a basement car park) then an appropriate collection point for the containers at ground level must be provided and clearly shown on the plans. Developers that are looking at using underground systems should refer to Section 4.7.

Bin storage areas should be easily accessible and conveniently located for the dwellings that they serve. Residents should not be required to walk further than 30m from their front door (excluding vertical distances) when carrying refuse and recycling. For larger developments it may be necessary to provide several bin storage areas to ensure an adequate distribution across the site. The location of communal bin storage areas should have regard to the impact of noise and smell on the occupants of neighbouring properties, both existing and proposed.

### **3.4 External Storage - Dimensions**

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

Bin storage areas must comply with the following:

- All bins must be fully accessible from the front face, to allow for easy depositing of waste.
- Layouts that require bins to be swapped round mid-week are permissible if it is demonstrated that there will be on-site management presence at the development.
- There must be a minimum of 150mm clearance around and between each bin within a storage area.
- Where there is more than one bin within a storage area, there must be 2m clearance in front of each bin to enable it to be accessed and safely moved without needing to move any of the other containers.
- All doors and alleys must be at least 2m wide to allow for safe manoeuvring of bins.
- The minimum internal height for a bin storage area and any access doorways is 2m.

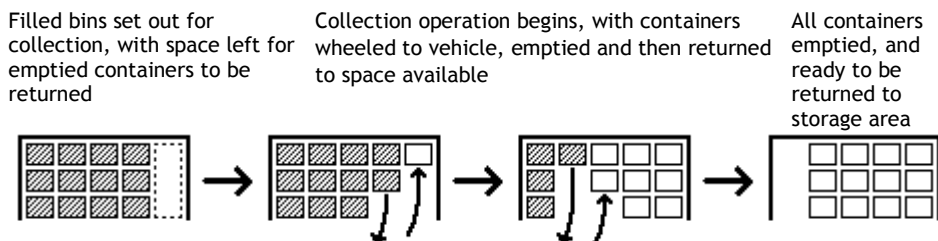
- To allow the lids to be opened fully, there should be no other internal fixtures or fittings that reduce the clearance above the bins.

### 3.5 External Storage - Design Features

- Bin storage areas should be contained within a suitable enclosure to prevent nuisance from the spread of waste, odour or noise.
- The walls should be constructed of materials that are non-combustible, impervious, easy to keep clean, and able to withstand impacts from fully-loaded Eurobins being moved.
- Where necessary, the installation of a suitable buffer can prevent contact between the bins and the inside faces of the walls.
- It is also recommended that any switches, plugs or other similar installations are placed above or well below the height of the rim of the bins.
- The external faces of the enclosure walls should be constructed or clad in material that is in keeping with the visual style of the surroundings. It is recommended that the use of appropriate screening or soft landscaping is considered to make bin storage areas more aesthetically pleasing.
- The enclosures must be suitably designed to prevent entry by vermin.
- Where a roof is being placed over the bin storage area or it is located indoors, the enclosed space must be well ventilated. The roof must be constructed of non-combustible, robust, secure and impervious material. There should be adequate lighting in the bin storage area. This lighting should involve sealed bulkhead fittings for the purpose of cleaning down with hoses. Switching should be either through a proximity detection system or on a time delay button to prevent lights being left on. This lighting should be easy to maintain by local site staff without the need for specialist parts.
- The use of doors or gates can help to reduce the potentially detrimental visual impact of a bin storage area, and can also enable site managers to reduce the risk of bin theft or vandalism. Such doors must not open outward over a public footway or road, and should not cause an obstruction to other access when in an open position. They should be able to remain or be secured in the open position so that access for collection staff is unimpeded when the bins are being emptied.
- The thresholds of any doors or gates must be free of rims or impediments at floor level. Where these are part of the design of standard door units being installed, developers must apply graded resin strips or other appropriate features on either side to minimise any impediment to the movement of the bins. Floor-level thresholds must also be very securely fixed down to prevent rising, warping or other such issues.
- There must be a water supply with standard tap fittings available to the bin storage area to enable washing down of the bins, walls and floor.
- Bin storage areas must have a suitable impermeable hard standing ground covering which can be cleaned easily. The slope of the floor must enable it to drain properly and completely. The drainage system must be suitable for receiving a polluted effluent. Any gullies must not be in the track of the container wheels.
- The design of bin storage areas should pay as much regard as possible to accessibility for disabled or elderly residents. Where the bin storage areas cannot be designed to meet the requirements of these residents, suitable alternative arrangements should be put in place by the site managers to support any tenants who are unable to use the external waste storage facilities provided.
- Storage areas for refuse and recycling bins should be clearly identifiable as such, through the use of appropriate signage on doors or walls. See **Appendix D** for relevant signage and stickers with costings. Reading Borough

Council should be consulted in the design of any signage to ensure information is accurate, consistent and presented appropriately, particularly with regards to the waste and recycling services offered in the borough. The use of 'Recycle Now' iconography is recommended for recycling signage.

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



### 3.6 External Storage - Access and Pulling Distances

Bin storage areas must comply with the following;

- The bin storage areas must be located at a point where the collection vehicle can safely stop for loading.
- The stopping point for the vehicle should be safe, legal and designed to minimise any obstruction to traffic. Please note the Reading Borough Council vehicle dimensions and specifications given in [Appendix B](#).
- The maximum distances that operatives should be required to wheel containers, measured from the furthest point within the storage/collection area to the loading position at the back of the vehicle are:

15m for any 2 wheeled containers up to 240-litres

10m for any 4 wheeled containers

- The surfacing of the route the operatives will take between the bin storage/collection area and the vehicle should have a hard, smooth and continuous finish.
- The pathway must be free of any steps, ironworks, trees, drainage gullies or other features which would obstruct or impede the movement of the bins.
- If access to a roadway is required along the route then a dropped kerb must be provided as close as possible to the storage area.
- Slopes should be avoided wherever possible along the pathway. Where needed the gradient should fall away from the bin storage area and should be no greater than 1:12. It is not acceptable for the route between the storage area and the collection vehicle (i.e. in the direction that filled bins will be pulled) to have any uphill gradients.
- Signage and, if appropriate, road/pavement markings should be used to indicate that the storage areas are not to be blocked at any time.
- If locks are to be fitted to any doors or gates at bin storage areas, these should be of a standard 'Fire Brigade' pattern. If a keypad and code is to be used for gaining access, then developers and site managers should be aware that the code will be shared with a number of collection staff. All arrangements must be agreed with Reading Borough Council prior to installation.

### **3.7 Designated Collection Points**

In locations where it is not practicable for architects to provide full access to the bin storage areas for waste collection vehicles or standard Eurobins to be located in underground car parks, a separate designated collection point must be provided. It is the responsibility of the site managers or residents to move the waste containers to the designated collection point by 7am on the scheduled day, and then to return the containers to their storage areas after emptying.

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

Developers and site managers must make sufficient provision to prevent other vehicles parking in the collection area, or in a position that would impede access for collection operatives.

Adequate arrangements must be provided for the collection vehicle to remain at its loading point for an extended period, particularly where a significant number of bins are to be emptied at the same time. Site managers should ensure that no other access is required to or through the designated collection point on the scheduled day of collection.

In positioning and designing the collection point, architects must ensure that the distance that operatives will need to wheel bins from the furthest point within this area to reach the loading point at the back of the collection vehicle does not exceed 15m.

Developers should ensure that they adhere to the other relevant access requirements for waste collection detailed in section 3.6. In particular, dropped kerbs must be provided beside the designated collection point if they are not level with the roadway.

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

### **3.8 Management-Provided Internal Waste Collection Services**

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

Developers considering doorstep collections must ensure that all relevant health & safety issues are addressed, including trip hazards and fire risk. In particular, developers must be able to demonstrate to Reading Borough Council that they have consulted and received approval from 'Royal Berkshire Fire and Rescue Service'

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

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

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

The receptacles on each floor into which tenants deposit their waste must be clearly labelled to encourage recycling and minimise the risk of contamination. Poster or sticker designs should be presented to the Council's Waste Management department for approval. The use of Recycle Now iconography is recommended. It will be the responsibility of the site management to cleanse and maintain chute systems, and clear any blockages which may arise. The Council will expect to see details of how this will be managed.

A fully enclosed and secured bin storage area must be provided at the base of each chute, designed in accordance with the requirements set out within Section 3. Chamberlain bins are recommended for use with chute systems although Reading Borough Council do not at present supply them (see [Appendix A](#) for more information). However, Eurobins may also be used, and are recommended if it is expected that some tenants will deposit their waste directly into the containers without using the chutes.

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

# **Commercial & Mixed-Use Developments**

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

## **4.0 Commercial Waste**

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

### **4.1 Design of Waste Storage Facilities**

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

The design and layout of bin storage areas will be consistent with that for purpose-built flats. Architects should follow the guidance given in Section 3.

### **4.2 Segregation of Commercial and Household Waste**

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

Access to the domestic bins should only be possible for residents and site management. It is also good practice to secure the commercial bin storage area to prevent residents from disposing household waste.

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

In developments where on-site businesses will be arranging individual contracts with waste collection providers, it will be necessary to ensure there is sufficient space available for each commercial unit to have its own bin or bin storage area. Architects and developers should ensure that provisions for waste storage and collection are compatible with the varying container and vehicle types used by different waste contractors.

### **4.3 Waste Storage Capacity**

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

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

## 4.4 Waste Collection Frequency

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

Reading Borough Council offers a commercial waste collection service and will provide a quotation as required.

## 4.5 Recycling

The Waste Regulations 2011 require “separate collections” of paper, metal, plastic and glass to be in place for businesses by January 2015. Developers should ensure that businesses and waste contractors are able to meet these requirements through the design of waste storage and collection facilities at new developments, including storage space within the business premises.

Mixed-material recycling is in operation for household waste, but such schemes may not be appropriate or permissible for businesses. As such, architects should consider the need for separate bins for each material for business premises. Medium to large hotels and restaurants must be designed to include separate storage provision for waste cooking oil.

## 4.6 Compactors

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

Developers should note that the Reading Borough Council does not offer a compacted waste collection service. Alternative arrangements would need to be made with a private contractor to have the bales of waste collected. The intended service provider should be consulted at the earliest opportunity in the planning process to ensure that their requirements for container storage and access are met.

Compactors for residential developments only tend to be effective if the development has a managed waste system with portorage. The use of compactors in residential developments will also mean that site managers will need to pay for ongoing household waste collections operated by a private contractor. No charges would be levied (apart from container purchase) for fortnightly collection of non-compacted waste by Reading Borough Council. However some sites require more than one collection a week and this is chargeable.

Compactors are recommended for all office developments larger than 5,000m<sup>2</sup>. For offices over 15,000m<sup>2</sup> in size a rotary compactor is preferable. For those in excess of 20,000m<sup>2</sup> a portable skip compactor or rotary compactor may be used.

For units of 1,500m<sup>2</sup> or more, or for small units where the gross combined floor space exceeds 1,500m<sup>2</sup>, a small sack compactor is recommended.



The most appropriate type of compactor for units of 2,000m<sup>2</sup> or more is the small sack compactor. This type of compactor may also be used for small units where the gross combined floor space exceeds 2,000m<sup>2</sup>.

For major retail developments of over 5,000m<sup>2</sup> a rotary compactor is recommended. Those developments over 10,000m<sup>2</sup> should be provided with a rotary compactor or portable skip compactor, and those over 15,000m<sup>2</sup> should consider the use of a larger static compactor.

Compactors are recommended for fast food outlets with an eat-in facility, and are recommended for other restaurants. A small sack compactor, or the type using rotary wheeled containers, is suitable for most applications, although the rotary compactor is preferable for restaurants with potentially high output.

For hotels up to 250 bedrooms the most appropriate type of compactor is the small bag compactor, or the type that compresses waste into Eurobin wheeled containers. For larger hotels, particularly for those with banqueting facilities, a rotary compactor, portable skip compactor or static compactor is recommended.

#### **4.7 Underground Eurobin Chambers with Lifting Mechanisms**

An alternative approach is to place standard Eurobin containers in purpose-built belowground chambers, with chutes running into the bins from receptacles at street level. The containers are made accessible for collection through a rising elevator system that brings the bins to ground level, to then be wheeled to the collection vehicle.

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

The rising elevator system must conform to all relevant British and/or European Standards. Depending on the design of the system, mechanisms to secure the bins in place to prevent damage during the operation of the elevator system may be needed.

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

The storage system location and design of adjacent roadways must meet the requirements set out in sections 2.3 and 3.6 so that:

- The Eurobins will not need to be pulled more than 15m to be emptied.
- All paving between the elevator platform and the vehicle is solid, smooth and level.
- Dropped kerbs are provided to access the roadway.

The storage system should be protected from vehicle damage at ground level through the use of bollards.

It will be the responsibility of the site manager to operate the elevator system so that the waste collection teams can access the bins at ground level. It is important to create a collection storage area so that the crews do not have to wait for each bin to be raised and presented. Due consideration should be given as to how to restrict access to the areas around the storage system during operation for health and safety reasons.

The maintenance and repair of the elevator system, ground level deposit points and other features of this system will be the responsibility of the site manager. Underground bin systems of this type must be dedicated for the use of residents only, with separate waste containerisation for commercial waste.

# Large-Scale Developments

## 5.0 Large-Scale developments

The generation of waste from new large-scale developments of over 100 units could have a significant impact on the local environment, and will place an additional burden on the existing collection, treatment and disposal infrastructure in the Borough of Reading. The requirement for adequate waste storage space and suitable access routes for collection vehicles will also reduce the flexibility that architects have in making the best use of the land available.

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

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

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

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

# Alternative Waste Management Technologies

## 6.0 Community Composting

Where practicable, Reading Borough Council encourages developers to make arrangements to facilitate communal/community composting to serve the needs of flats or dwellings that do not have access to a private garden. The main considerations are that the composting bins are screened, that the area is purpose built and clearly signposted, and that ongoing management and maintenance is provided. In all cases the composting scheme must achieve full compliance with the [Animal By-Products Regulations \(2013\)](#), and if applicable it must be registered with the Environment Agency to have a waste management licence, an environmental permit, or the appropriate exemptions.

### 6.1 Food Waste Disposers (In-Sink Macerators)

Food waste is a potential source of fertiliser for agricultural land and biogas-derived energy, and the use of alternative treatment solutions that can harness this potential is therefore a key priority for the national government. Ongoing research is showing that the use of in-sink macerators (also known as food waste disposers) in household kitchens will be a very effective way to divert organic kitchen waste to existing anaerobic digestion facilities at sewerage treatment works, without the need to set up separate collections.

A key barrier to the wide-scale introduction of in-sink macerators is the cost of retro-fitting kitchens with sinks that have a wider plughole, and an electrical power supply underneath to power the units. However, the provision of such facilities, and indeed to provide the disposer itself, will have a negligible impact on the cost of the kitchens in new developments.

Reading Borough Council recommends that developers ensure pipe networks in new blocks of flats are compatible with food waste disposers.

Developers are encouraged to provide in-sink macerators in the kitchens of all new developments. Where this is not taking place, developers should fit sinks that are compatible with such units, and ensure there is an under-sink power supply available that will enable a food waste disposer to be fitted later.

### 6.2 Automated Vacuum Collection Systems

Automated vacuum collection (AVAC) systems use underground pneumatic pipe networks to move waste from ground-level deposit points to a single collection station elsewhere on the development. These systems can be built for the transfer of refuse, as well as various recycling streams. They greatly reduce the requirements for waste storage infrastructure to be distributed across large sites. This allows architects and developers to consider reducing the clearances and turning circles of roads across the development as access for waste collection vehicles is generally not required (except at the collection station). However, the maintenance requirements of this type of system will need to be appropriately considered, particularly with regards to residents' service charges.

In order to realise the full benefits of AVAC systems, the waste needs to be compacted at the collection station so that the size of that facility can be kept to a relative minimum. Developers considering this type of system will therefore need to be aware that the Reading Borough Council does not currently provide a compacted waste collection service. Alternative arrangements would need to be made through a private contractor.

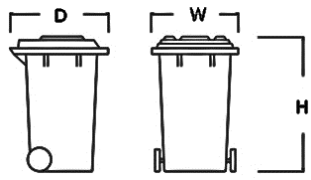
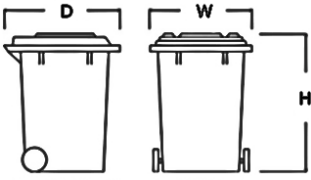
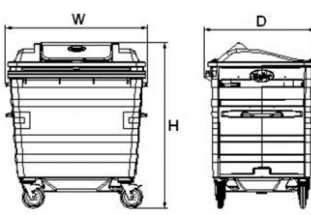
# Appendix A

## Reading Borough Council

### Waste Container Dimensions

This appendix provides information on the dimensions of Reading Borough Council's waste receptacles that we supply and empty.

Please be aware that private waste contractors can use a range of various sized vehicles and containers for waste collection and should be consulted at the earliest stage of development.

Capacity	H (mm)	D (mm)	W (mm)	
<p><b><u>240 - litre</u></b></p> <p><i>Up to 5 Adults over 16yrs old in a house.</i></p> <p>Colour requirements: Grey / Black - Landfill Red - Recycling.</p> <p><b>£41.70 each*</b></p>	1085	730	575	
<p><b><u>360 - litre</u></b></p> <p><i>For large families of over 5 adults in a house.</i></p> <p>Colour requirements: Grey / Black - Landfill Red - Recycling</p> <p><b>£62.60 each*</b></p>	1090	880	580	
<p><b><u>1100 - litre</u></b></p> <p><i>Blocks of flats &amp; communal bin areas. 5 flats per 1100 on a Fortnightly collection or 10 flats per 1100 on a Weekly collection; Collection frequency to be determined by Reading Borough Council</i></p> <p>Colour requirements: Grey / Black - Landfill &amp; Green - Recycling</p> <p><b>£275.90 each*</b></p>	1295	1118	1370	

For Student Accommodation, please contact us for guidance.

We do occasionally stock some refurbished metal 1100 litre bins, for residual waste. These cost £150.00 each but cannot be bulk ordered and are stocked in small numbers.

\* Prices correct from November 1<sup>st</sup> 2016

# Appendix B

## Reading Borough Council

### Vehicle Dimensions and Specifications

This appendix provides information on Reading Borough Council's refuse collection vehicles.

Please be aware that private waste contractors use a range of various sized vehicles and containers for waste collection and should be consulted at the earliest stage of development.

Below is the specification for our 2015 Dennis Eagle Elite 6 (6x2RS) with Olympus OL16N Body.



Drive	6 x 2 rear - steer
Overall width (a)	2250 mm
Overall length (b)	8750 mm
Overall height (c)	3540 mm
Wheelbase	4800 mm
Front overhang	1665 mm
Rear overhang	2285 mm
Gross Vehicle Weight	26000 kg
Rear Bogie Plated Weight	19000 kg
Turning Circle - overall (metres)	20.30 m
Approach angle (front wheel - bumper)	15.5°
Departure angle (rear wheel - hopper base)	16°

## Appendix C 'Recycle at Home' and 'Recycle from Your Flat'

A Printable leaflet for your moving in guides that you can also download as a pdf version from our website. [www.reading.gov.uk/recycling](http://www.reading.gov.uk/recycling)

## Recycle at Home

### Frequently Asked Questions

#### Why should I recycle?

Recycling is easy, good for the environment and saves money as sending waste to landfill costs a lot more than recycling it.

#### What happens to my recycling?

After collection, your recycling is taken to the Materials Recycling Facility (MRF) at Smallmead, Reading, where it is sorted and then sent to re-processors to be made into new products.

#### Why is it important to recycle the right things?

Putting the wrong things into your recycling bin or box can ruin the good recycling that you have put in there and mean that the collection crew won't be able to empty it. If in doubt, leave it out!

#### Why can't I put other plastic items into my recycling bin?

We only collect plastic bottles as they can be recycled easily whereas there is a limited market in the UK for other types of plastic. Margarine tubs, yoghurt pots, meat trays and plastic bags are all made from different types of plastic which are difficult to separate and process once collected.

#### Want to recycle more?

#### Why not visit your local recycling site?



			<b>glass</b>	<b>textiles</b>	<b>tetrapack cartons</b>
			<b>books</b>	<b>shoes</b>	<b>batteries</b>

You can find details of your local site at [www.reading.gov.uk/recycling](http://www.reading.gov.uk/recycling)



#### Find out more:

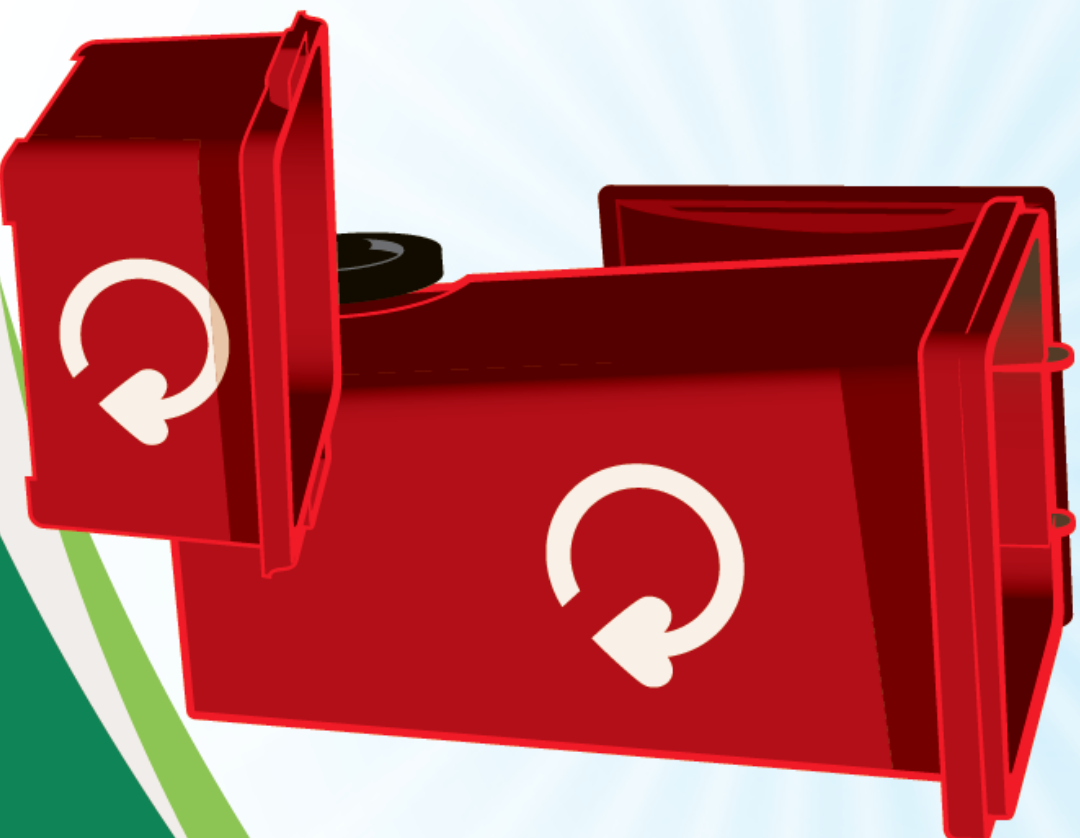
[www.reading.gov.uk/recycling](http://www.reading.gov.uk/recycling)

0118 937 3787

Follow us:  

Printed onto 100% recycled material. 11/13

## Recycle at Home



 Recycle for Reading

 **Reading**  
Borough Council  
Working better with you

# Recycle at Home

Recycling is easy, good for the environment and saves money. Together we can recycle even more.

## What Can I Recycle in my Red Recycling Bin/Box?

	 <b>mixed paper &amp; card</b>			 <b>food tins &amp; drink cans</b>			 <b>plastic bottles</b>	 <i>No lids</i>		 <b>newspapers &amp; magazines</b>			 <b>empty aerosols</b>		
---	--	---	---	--	---	--	---	--	---	--	---	---	--	---	--

## NO THANKS



Please don't put any of these things in your recycling bin:

- Plastic bags
- Other plastics & polystyrene (no pots, food trays, tubs or film)
- Food and drink cartons
- Food waste
- Nappies
- Glass
- Textiles
- Electricals & metals

**If in doubt, leave it out!**

### TOP TIPS

- Put your recycling in your bin loose - no plastic bags!
- Remove lids from plastic bottles
- Flatten cardboard boxes
- Rinse out cans, tins and plastic bottles

### Recycle Your Batteries

Recycle your used household batteries. Just put them into a clear, sealed sandwich/freezer bag and leave them on top of your red bin on collection day.

### Get a Garden Waste Bin/Bag

You can opt into the garden waste collection service which is collected every two weeks. For full details of the service, and charges, please visit the website.

### Order an extra recycling bin/box

If you have too much recycling to fit in your recycling bin/box, you can order an additional bin/box from us free of charge.

To find out the date of your next recycling collection visit [www.reading.gov.uk](http://www.reading.gov.uk) Remember to put your bin/box out from 7am, on the edge of your property.

# Recycle from Your Flat

## Frequently Asked Questions

### Why should I recycle?

Recycling is easy, good for the environment and saves money as sending waste to landfill costs a lot more than recycling it.

### What happens to my recycling?

After collection, your recycling is taken to the Materials Recycling Facility (MRF) at Smallmead, Reading, where it is sorted and then sent to re-processors to be made into new products.

### Why is it important to recycle the right things?

Putting the wrong things into the communal recycling bin can ruin the good recycling that you and your neighbours have put in there and mean that the collection crew won't be able to empty your bin. If in doubt, leave it out!

### Why can't I put other plastic items into my recycling bin?

We only collect plastic bottles as they can be recycled easily whereas there is a limited market in the UK for other types of plastic. Margarine tubs, yoghurt pots, meat trays and plastic bags are all made from different types of plastic which are difficult to separate and process once collected.

## Want to recycle more?

### Why not visit your local recycling site?



	glass		textiles		tetrapack cartons
	books		shoes		batteries

You can find details of your local site at [www.reading.gov.uk/recycling](http://www.reading.gov.uk/recycling)



### Find out more:

[www.reading.gov.uk/recycling](http://www.reading.gov.uk/recycling)

0118 937 3787

Follow us:

Printed onto 100% recycled material. 11/13

# Recycle from Your Flat



Recycle for Reading

**Reading**  
Borough Council  
Working better with you



# Recycle from Your Flat

Recycling is easy, good for the environment and saves money. Together we can recycle even more.

## What can I recycle in the communal recycling bin?

	 <b>mixed paper &amp; card</b>	
	 <b>food tins &amp; drink cans</b>	
	 <b>plastic bottles</b>	 <b>No lids</b>
	 <b>newspapers &amp; magazines</b>	
	 <b>empty aerosols</b>	



## NO THANKS

Please don't put any of these things in your recycling bin:

- Plastic bags
- Other plastics & polystyrene (no pots, food trays, tubs or film)
- Food and drink cartons
- Food waste
- Nappies
- Glass
- Textiles
- Electricals & metals



**If in doubt, leave it out!**

## Keeping your communal bin area tidy

Please try and keep your communal bin area tidy for the benefit of your neighbours and residents who live around you:

- ### TOP TIPS

  - Put your recycling in your bin loose - no plastic bags!
  - Remove lids from plastic bottles
  - Flatten cardboard boxes
  - Rinse out cans, tins and plastic bottles
- Make sure that you put your recycling and general waste in the correct bins
  - Don't leave any items on the floor next to the bins, it will make it difficult for others to use the bins
  - Please don't park in front of the communal bin area - it will mean that we won't be able to empty the bins.

# Appendix D

## Reading Borough Council Signage, Poster & Sticker Examples



Landfill Bin Sticker for 1100L bins



Recycling Bin Sticker for 1100L bins



Communal Store Sign A



Communal Store Sign B



Communal Internal Noticeboard Poster



Communal Internal Noticeboard Poster

Please contact us to discuss any signage and posters for your developments.

# References & Sources

This waste management guide is based on a combination of regulations, codes of practice and specific requirements from Reading Borough Council. Some waste collection solutions mentioned have come from other authorities in the UK and may not be available in Reading at this time.

The following documents should be referred to by architects or developers, but any requirements must still be agreed with by Reading Borough Councils Neighbourhood Services (Waste Minimisation, Waste Ops & Streetcare) and Planning Department.

- 1) [British Standards BS 5906:2005](#) - Waste management in buildings - Code of practice
- 2) [2010 No.2214 Building and Buildings, England and Wales](#) - The Building Regulations 2010
- 3) The Building Regulations 2000 - Approved [Document H, Drainage and Waste Disposal](#) (2002 edition)
- 4) Building Regulations 1991 H4
- 5) [Code for Sustainable Homes - A step-change in sustainable home building practice - DCLG, Dec 2006](#)
- 6) The Environmental Protection Act 1990 - [Section 46](#)
- 7) The Housing Act 2004 - [RBC Housing and HMOs](#) teams
- 8) [The National Waste Management Plan for England 2013](#)
- 9) Reading Borough Council's - [Waste Minimisation Strategy 2015/20](#)
- 10) [Re3](#) - HWRC
- 11) [Bracknell Forest Borough Council](#)
- 12) [Newham London Borough Council](#) Various sections of information throughout the document

# Contacts

For all enquiries relating to Waste Storage, Capacity, Collection and anything within this document contact:

Matt Dady

Waste Minimisation & Recycling Officer  
Neighbourhood Services  
Reading borough Council

01189 373 787

[streetcareadmin@reading.gov.uk](mailto:streetcareadmin@reading.gov.uk)

[www.reading.gov.uk](http://www.reading.gov.uk)

Please note that it may be necessary to supply site plans and initial waste management proposals (if not already submitted to our Planning Department) to enable your enquiry to be handled.