



DESIGN GUIDANCE NOTE 1: Residential layouts & wheeled-bins

Quick checklist

- *Think through storage and movement of containers as a 'design layer' to be balanced against other aspects shaping a development proposal*
- *Don't spoil otherwise good design and place-making by not thinking about it or leaving it until after other elements of design have been fixed*
- *Would you do what you are proposing on plans? Would it encourage repeated use?*
- *Design to function well: the plot, street, and neighbourhood will then look good*
- *Approach frontage storage solutions carefully: do they fit with the architectural style or would they visually jar?*
- *Strongly consider side and rear garden storage options and integration with buildings*
- *Avoid overly long pulls with frequent twists and turns around other objects – keep arrangements simple and they will be more likely to be used*
- *Provide tracking plans of refuse vehicle movements on proposed areas of adopted highway at an early stage to prove that a layout works*
- *Refuse collection points serving private drives and private courts should be within 10-15m of the adopted highway - integrate these small spaces properly with their surroundings*
- *Make sure that a route alongside parked vehicles for wheeled-bin movement is wide enough to encourage repeated use and prevent damage to shrubs, grass and vehicles*
- *Communal stores at flats must be secure, lit, big enough, be provided with tie-backs to double doors and due to the larger and heavier 4-wheeled bins that are used must be located within 10m of a dropped kerb to the carriageway clear of on-street parking spaces*

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1.0 Introduction

1.1 In 2013, Ashford Borough Council introduced a containerised collection service to help reduce the amount of waste that it sends to landfill and to help improve the recycling of paper, tins, glass and plastic. An optional service has been introduced for those wishing to have garden waste collected.

1.2 This change has prompted a fresh look at matters of refuse collection. The Council's corporate and plan-making focus is on creating good quality homes and delivering good design through attention to all aspects of place-making. The purpose of this Note is to ensure that designers give careful early consideration to the practicalities of refuse and recycling collection from the dual perspectives of **storage** and **movement**. These must be treated as a 'design layer' when generating a layout in order to help deliver places that will look good and function well. Designers should critique their draft work by considering the following questions;-

'If I lived there, would I actually do what I am proposing'

'Would I feel that the arrangements work well and demonstrate thoughtful design with ease of use by the occupier in mind?'

- 1.3 The success of this Note will be reviewed as new developments are occupied and monitored. In the meantime, this Note will be taken into consideration when determining planning proposals for new homes. Arrangements that are considered unsatisfactory will not be approved or recommended to the Planning Committee for approval.
- 1.4 **Design Guidance Note 2** is also available dealing with ideas for screening containers at homes. This is equally applicable to new developments as it is for owners considering retrofitting screening solutions in order to improve the visual impact of stored containers on the home.
- 1.5 In some circumstances wheeled-bin container movement through car barns and garages might be necessary responding to other layout and place-making objectives. The minimum internal dimensions of these parking areas as set out in the Council's adopted Residential Parking and Design SPD 2010. However, they pre-date the changes to the Council's refuse and recycling service and are considered insufficient to allow for the easy movement of wheeled bins alongside parked vehicles out to the collection point (and back again). This tension may lead some occupiers to resort to open storage on the property frontage as the default position simply because movement alternatives are, in practice, too difficult to contemplate.
- 1.6 This type of occupier response will have cumulative adverse visual impact on the qualities of the street scene undermining other aspects of good design and is something that the guidance in this Note aims to avoid. Accordingly, the minimum internal dimensions of covered parking facilities will need to be enhanced in width in these situations if there is no other acceptable movement route for wheeled-bins from the side or rear garden to the point of collection. **Design Guidance Note 3** sets out the changes in minimum internal dimensions for car barns and garages – *termed 'SPD+'* - that designers will be expected to work to in order to avoid such problems where this type of layout is proposed.

2.0 Dimensions

- 2.1 In respect of houses and single flats, the family of containers needing to be stored externally, together with their respective dimensions and frequency of collection is shown below. Single flats without a garden will not need a garden waste recycling bin. Homes and flats are also provided with a small 5 litre food caddy - 205mm(H), 250mm(W) and 205mm(D) - for internal storage prior to transfer to the larger external version.

<u>Bin type (& capacity ltr.)</u>	<u>Height(mm)</u>	<u>Width(mm)</u>	<u>Depth(mm)</u>	<u>Frequency</u>
Recycling (240)	1070	580	740	Alternate week
Garden (opt.) (240)	1070	580	740	Alternate week
Other waste (180)	1066	480	550	Alternate week
Ext. food caddy (23)	405	320	400	Weekly



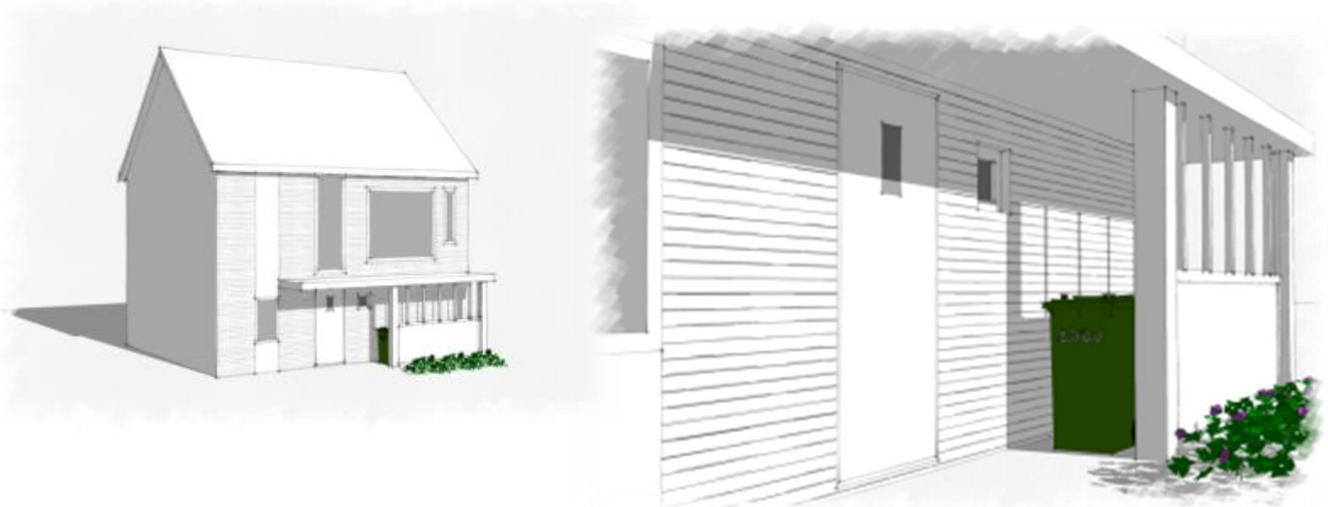
- 2.2 In respect of medium sized blocks of flats, safe and secure communal storage facilities will be required for the family of containers shown below together with frequency of collection.

<u>Bin type (& capacity ltr.)</u>	<u>Height(mm)</u>	<u>Width(mm)</u>	<u>Depth(mm)</u>	<u>Frequency</u>
Recycling (1100)	1665	1373	1050	Alternate week
Other waste (1100)	1665	1373	1050	Alternate week

Large food waste (140) 1060 480 555 Weekly

3.0 Where to store on the plot

- 3.1 Open storage on the plot street frontage may be the only realistic way of accommodating containers in some older properties. Many of these homes start with the advantage of having walled front gardens, side and frontage railings and mature hedge and tree planting, all of which help limit the cumulative street scene impact of items stored on the plot frontage. Occupiers of older homes may still, however, wish to consider the screening ideas set out in Design Guidance Note 2, particularly in situations where items of historic streetscape have been unsympathetically removed over time.
- 3.2 The Council expects designers of new homes to address storage of containers from the outset as part of creating good quality homes that function well for the occupants, look good, combine to create high quality streets and help deliver the Council's commitment to strong place-making.
- 3.3 Aside from cumulative harm to the visual qualities of new streets, placing containers close to the front door also challenges the ability of occupiers to create an attractive and welcoming principal entrance into their home. Such open storage is unlikely to be shown on street-scenes and 3-D visualisations that typically form part of planning proposals and so it is appropriate to expect layout design forethought to help prevent this type of storage occurring in practice.
- 3.4 It is accepted that in some single or minor infill development situations, space might be available for open frontage storage as an approach that would fit well with the context of the development without causing visual harm to the surroundings. Nevertheless, screened storage areas and/or storage integrated into the design of frontage outbuildings are encouraged wherever possible as part of creating a well-designed visually attractive entrance to the home.
- 3.5 Some integral storage as part of a recessed entrance lobby can work visually but it has an impact on the ground floor plan and the associated dimensions of rooms and circulation space. It tends to suit only certain 'townhouse' or 'live/work' building typologies whether these are in a contemporary or in a traditional architectural style. Sufficient space is unlikely to be available to meet total storage needs. It would be unusual to divorce a garden waste wheeled bin from the private rear or side garden and so grouping all containers together in those more visually hidden spaces should be strongly considered.
- 3.6 Some storage areas can be integrated into part of a large covered entrance porch over the principal entrance and planting can add a further dimension to the resultant visual screen. Care will be needed to make sure the approach sits comfortably with the form, scale, architectural style and detailing of the proposed building.





3.7 Modern and contemporary architectural styles have greater capacity for successful functional and aesthetic integration of some plot frontage storage, including stores beneath upper floors and stores below projecting balconies.



3.7 In medium to large scale developments, particularly those in a traditional style, space for frontage storage is less likely to constitute a realistic option in terms of development economics. Creating storage space along the side of homes or in rear gardens are the options that designers should primarily consider in these situations. They will have limited impact of the wider locality and the quality of new street scenes being created. Designs can be open, partly enclosed or fully enclosed. The Council's preference is for integration with

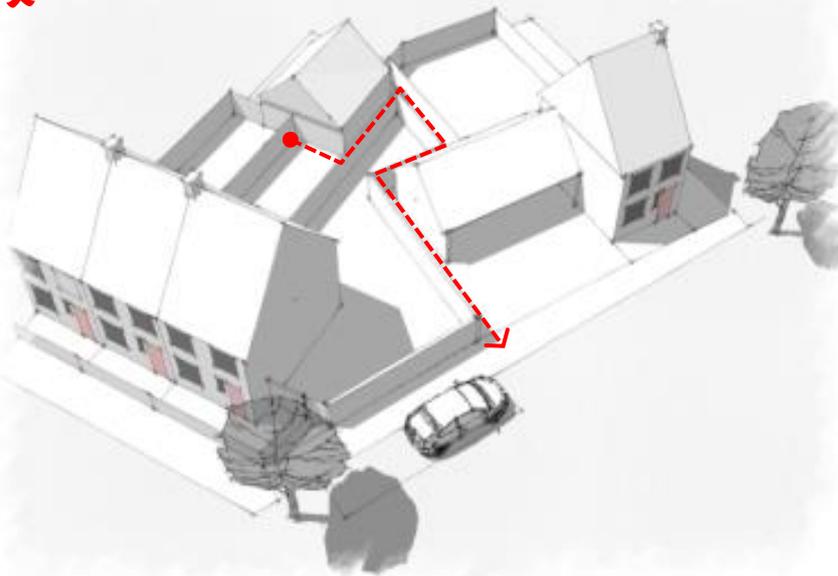
any associated outbuildings. This has the benefit of creating a functionally coherent overall layout that reduces the impact of storage on the remaining private amenity space. The example below shows bin storage integrated into the design of an outbuilding through an extended 'cat-slide' roof form.



3.8 Paths to and from storage areas should be level or have only shallow ramps. Steps should generally be avoided: they will be difficult to negotiate with a laden wheeled-bin and have the potential to encourage storage in less visually successful locations.

4.0 Moving bins easily

- 4.1 The Council operates a kerbside collection service and so the practicalities of moving wheeled-bins and containers to this location at the beginning of the day (or agreed collection point close-by in instances where homes are located within a private courtyard or along a private drive) and back again at the end of the day need to be thought through.
- 4.2 Wheeled containers become much heavier and less able to be turned sharply when they are full. Long paths with frequent turns need to be avoided to make routes to the collection point simple and easy to use. If routes are easy to use then they will stand the best chance of repeated use by future occupiers. Subtle changes in layout can obviate complex paths as the images below illustrate.



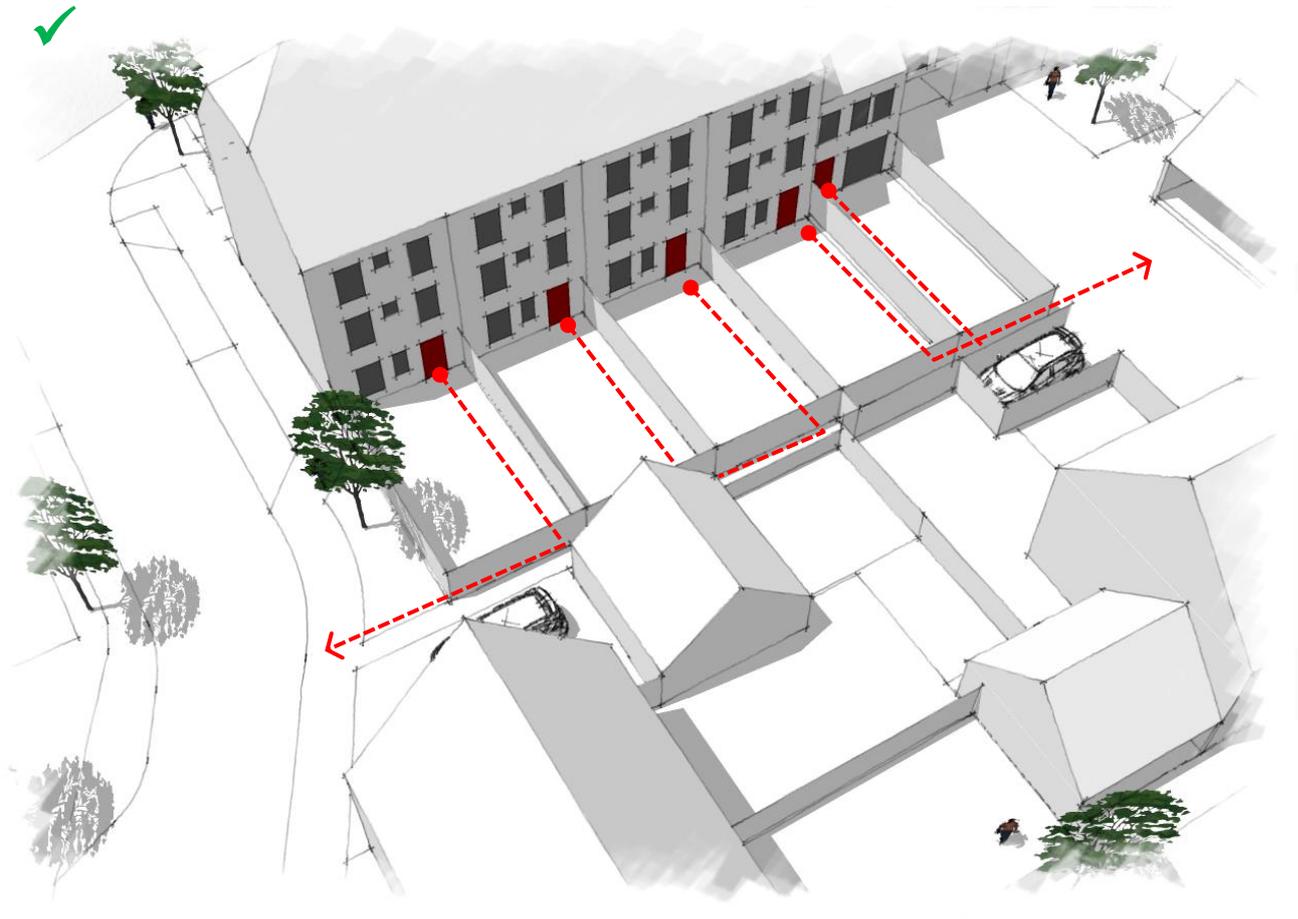
Overly complex



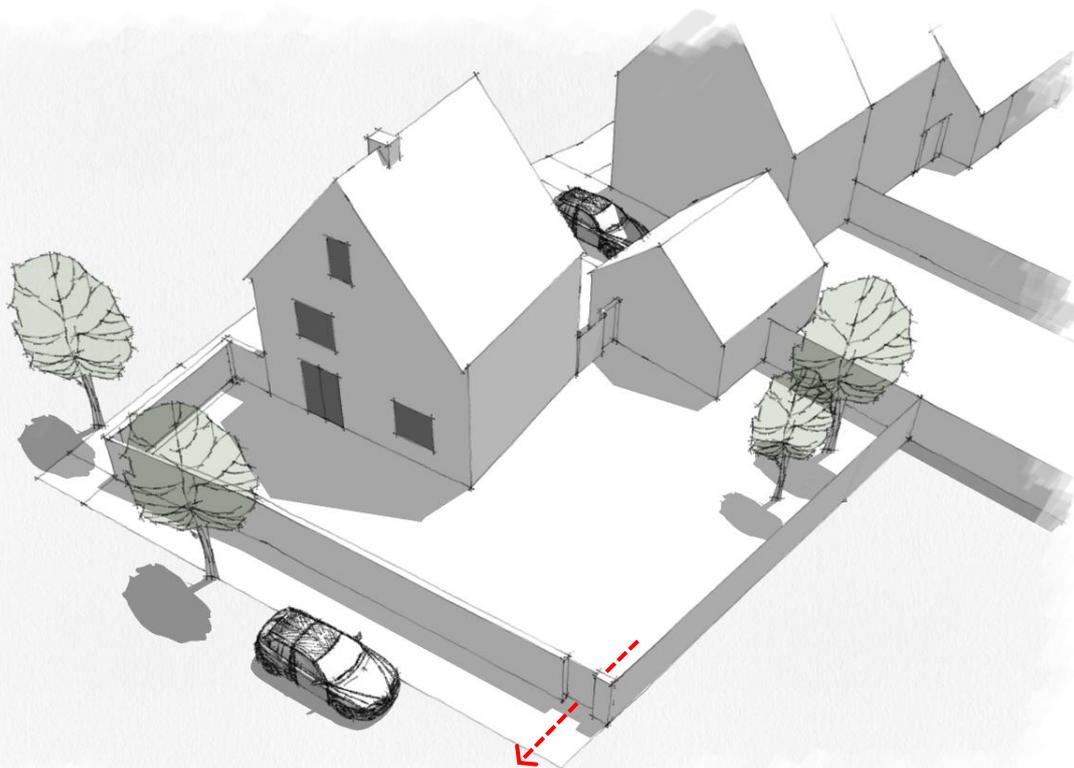
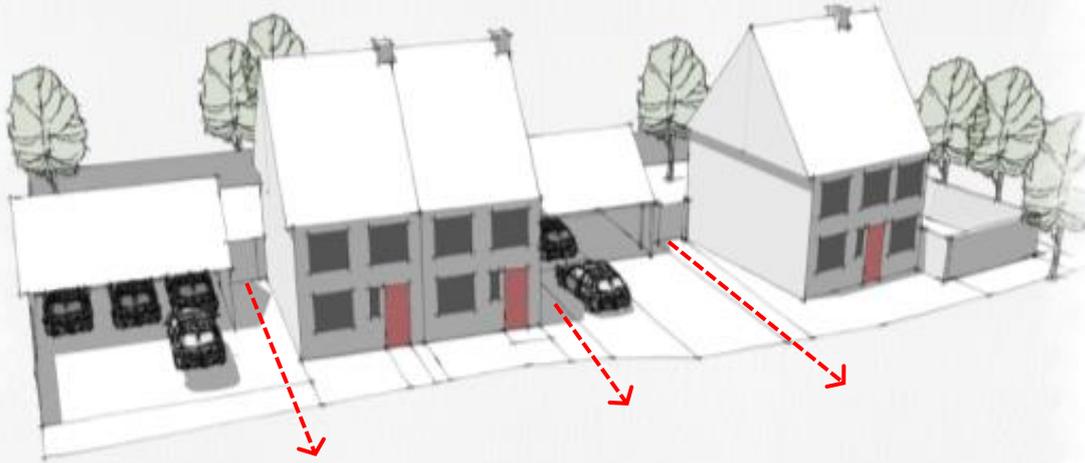
Simple & direct

Car barn in parking court to rear of garden re-sited allowing (i) a rear gate to be installed and the creation of a simple route out to a refuse collection point and (ii) the deletion of an alleyway around the adjacent home

- 4.3 Single long alleyways serving the rear gardens of a large number of homes need to be avoided: these may require some occupiers at the end of the alleyway to pull heavy wheeled-bins for considerable distances and they have the potential to reduce home security as well as encourage anti-social behaviour affecting the qualities of adjacent private amenity space.

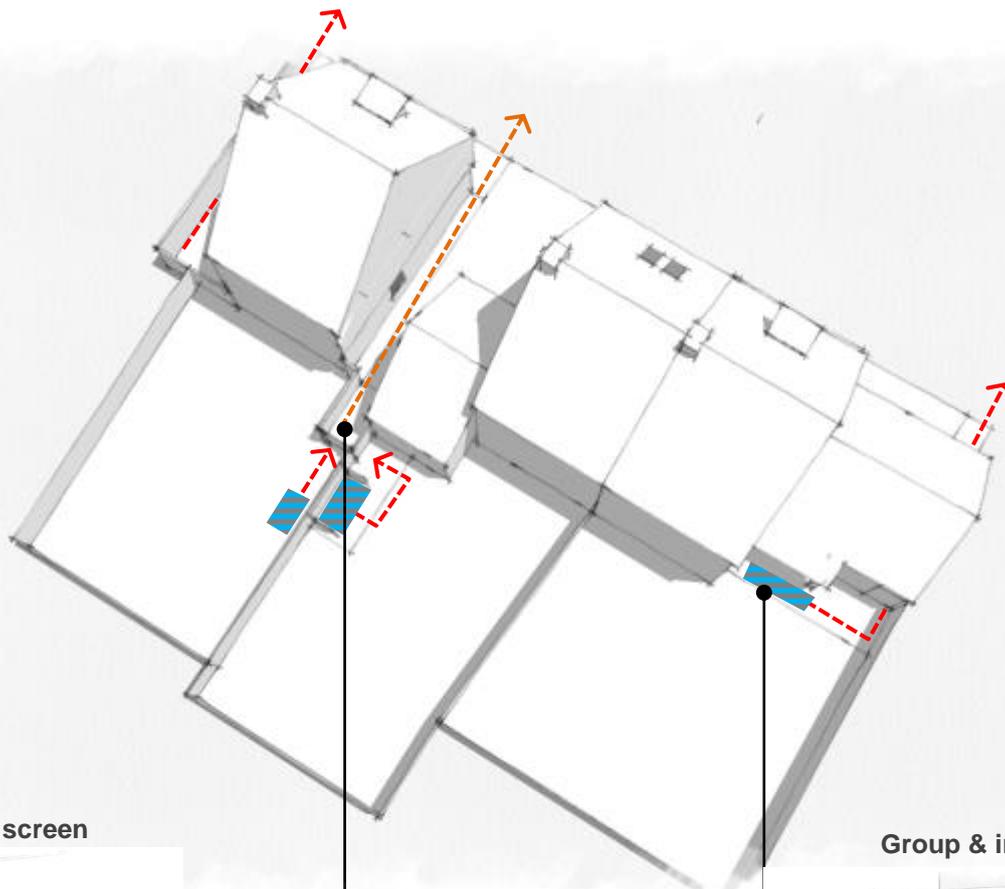


- 4.4 Where dwellings are detached and set in more space, there will typically be sufficient room for wheeled-bins to be moved easily from the garden to the kerbside frontage alongside any parked cars and without the need to be pulled through any outbuildings. The hard surface width for this movement should be 0.8m: essentially the width of a large bin with a small margin of tolerance to negotiate cars and buildings. In a street corner situation, a side gate set in a garden wall can offer a useful alternative movement option to the adjoining street.

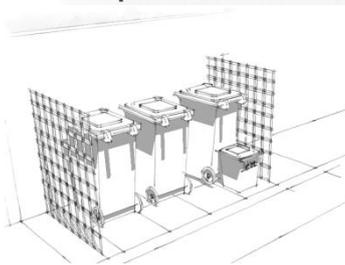


Side gate used to deliver bin to kerb

4.5 Where a layout becomes tighter knit through a deliberate act of place-making, creating sufficient space to move a wheeled-bin to the kerbside collection point presents a greater design challenge. Some paths may need to be shared between adjacent dwellings.

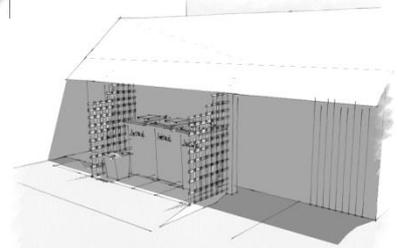


Group & screen

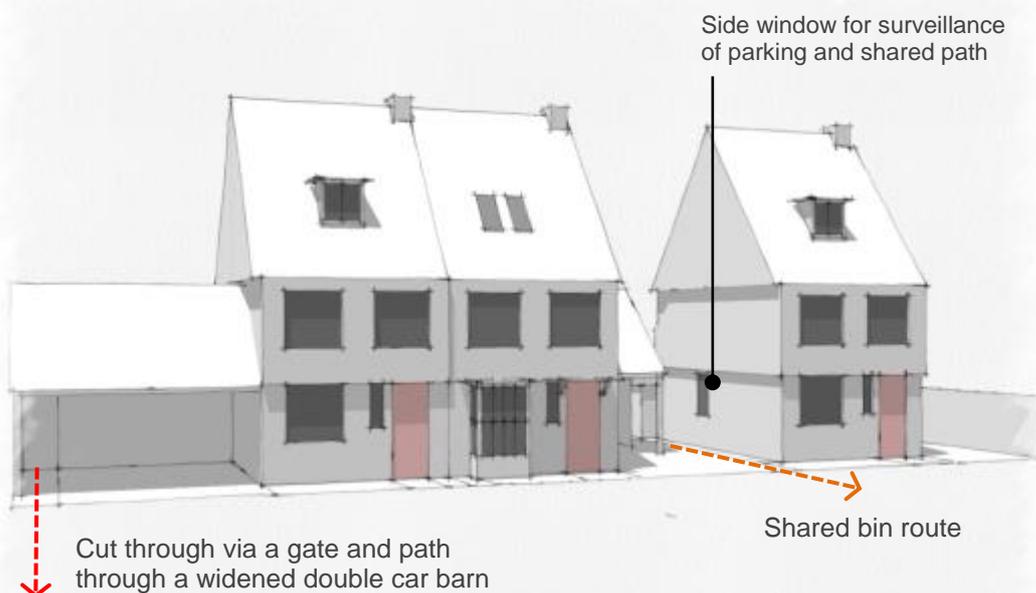


Two homes sharing a route to the kerbside – scope within each garden to group and screen bins

Group & integrate



Bins grouped and integrated into rear of car barn through use of cat-slide roof

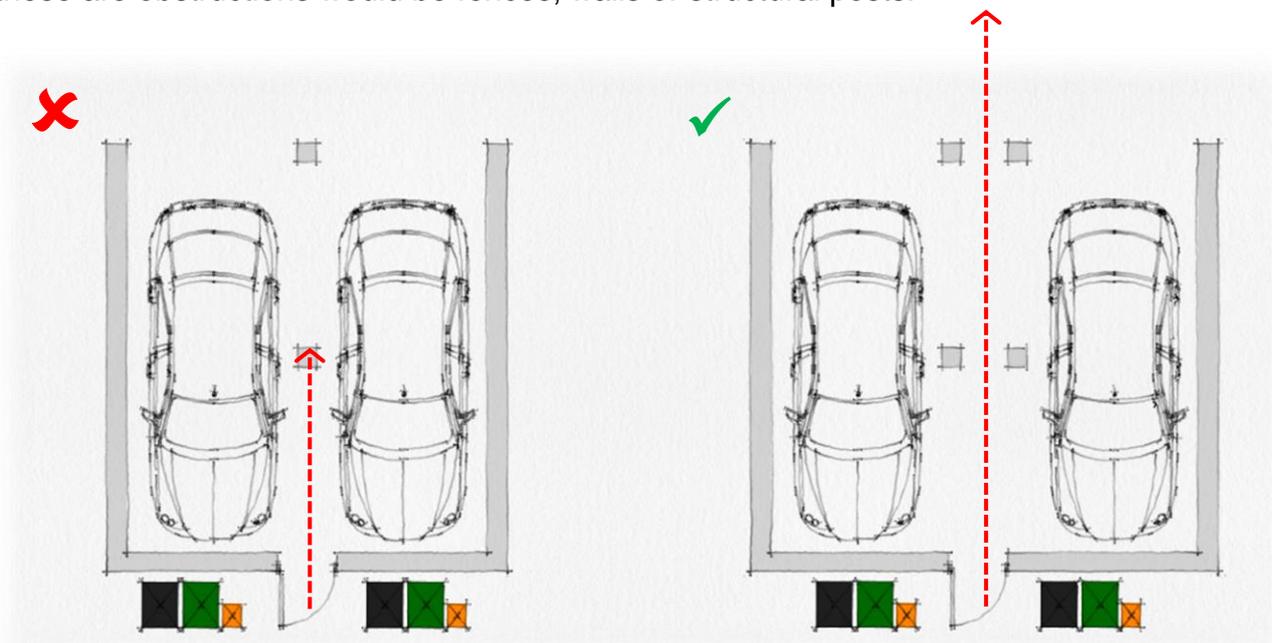


Side window for surveillance of parking and shared path

Cut through via a gate and path through a widened double car barn

Shared bin route

- 4.6 Where a layout works for otherwise desirous place-making and character area reasons but would require a wheeled-bin to be moved through a car barn or garage to the collection point then that movement route needs to be sufficiently wide to allow a heavy 2 wheeled-bin to be pulled easily alongside a parked vehicle without causing damage. This is shown in the images above. **Design Guidance Note 3** sets out enhanced minimum internal dimensions, termed '**SPD+**', designed to help create comfortable routes for occupiers to use.
- 4.7 Care is needed to ensure that any internal structural posts will not impede individual or shared wheeled-bin movement routes. Designers will be expected to confirm certain aspects of fine detail at application stage. Drawings will need to show how a building for which permission is sought will be constructed in a manner that avoids any blockages being introduced by supports added at development implementation stage rather than being shown on any plans approved through full or reserved matters applications. For the avoidance of doubt, the minimum acceptable internal dimensions should be taken between the inside faces of any obstructions on either side of the covered parking space whether these are obstructions would be fences, walls or structural posts.

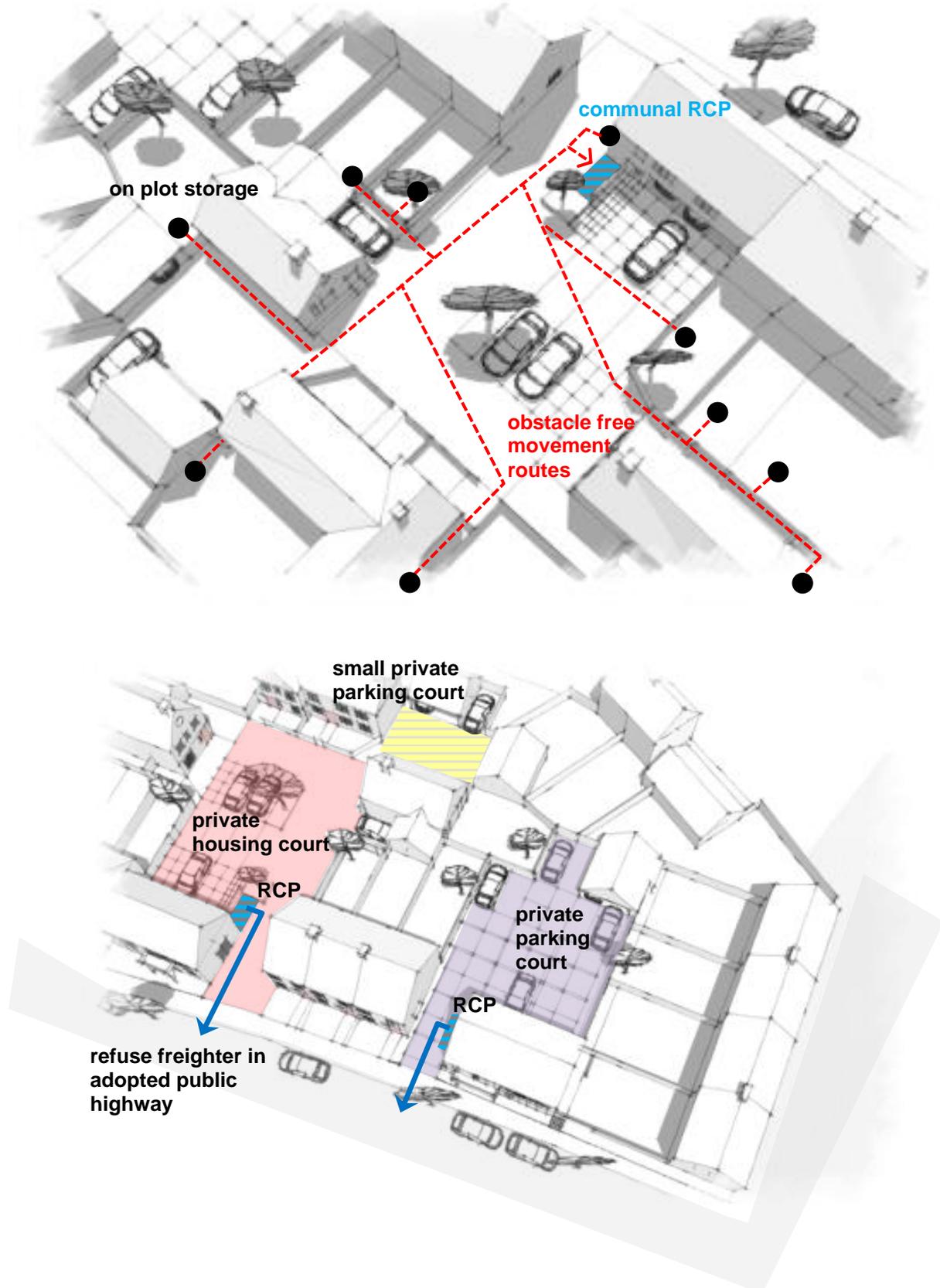


5.0 Length of routes & use of collection points in private courts/drives

- 5.1 Routes from the plot to the collection point – whether at the kerbside or a defined refuse collection point serving groups of homes located on a private drive or in private court arrangement – should not be unduly long and should avoid multiple changes in direction in order to be manageable.
- 5.2 An interesting, varied layout accommodating a range of housing types and creating streets and places with different qualities will, necessarily, mean that wheeled container pull distances will tend to vary. A 'one size fits all' standard would be inappropriate and would stifle site specific contextually good design. The maximum distances set out in the Building Regulations are generally greater than the guidance in various British Standards and so the latter are favoured as a reasonable design response.
- 5.3 As a general guide, the majority of homes should typically be designed to limit pull distances between plot storage point and a communal refuse collection point to 30m. Where a layout works well in other terms, but dictates the compromise of longer pull distances, designers will be expected to set out full reasons for the approach promoted so this can be considered and balanced against other factors informing layout. The guiding factor will be whether the route is realistic and will generate repeated use. Excessively long

pull distances will not be approved. The length of pull distances will be a factor that purchasers should take into account when considering how well a property will meet their specific needs.

- 5.4 Where groups of homes are accessed by private drives, private housing courts or private parking courts, those drives and courts will not form part of the adopted public highway. Refuse freighters will not normally enter private land and so communal refuse collection points will be needed. In exceptional circumstances, an Indemnity Agreement may be possible to be agreed with the Council but designers will be expected to demonstrate why other options cannot be made to work and why an exception should be considered.

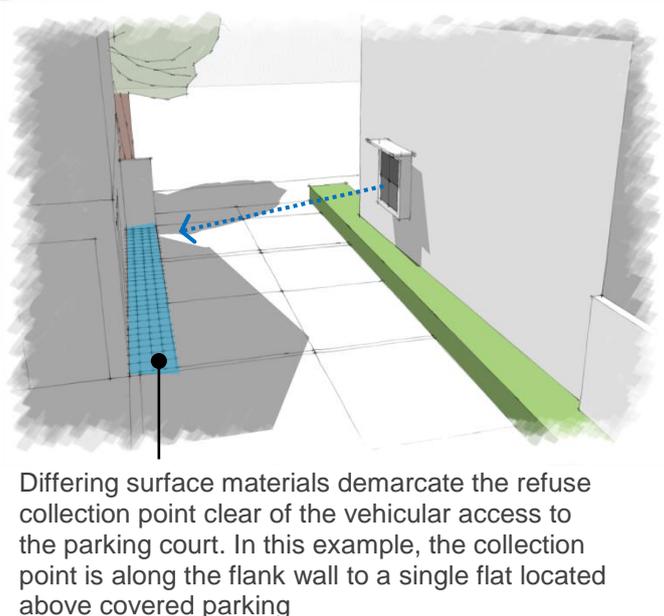
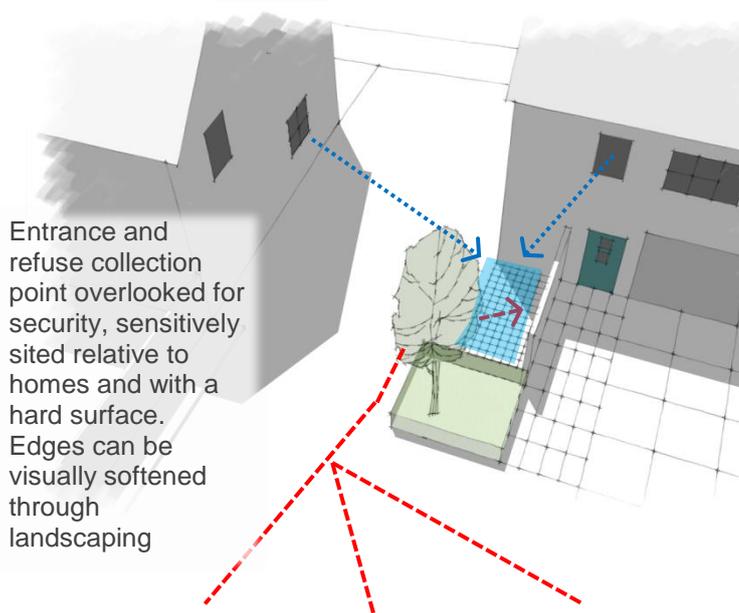


- 5.5 Knowing at an early stage proposed adoptable public highway compared with that which would remain privately maintained is essential in considering whether a layout would work acceptably from a refuse collection perspective. An 'adoptable extents' plan should be provided at planning application stage to distinguish between the two.
- 5.6 Tracking plans proving that a refuse freighter (length 10.703m, width 2.490m) can travel through a layout and turn adequately within the proposed adopted public highway without damaging buildings, street trees and parked vehicles should be submitted at the same time



- 5.7 Refuse collection points for groups of homes accessed by private land need to be close to the public highway. They do not necessarily need to be coterminous - within 10m to 15m is considered a reasonable design response – but they should be thoughtfully designed to integrate with the immediate surroundings and minimise use impacts on the properties nearby. As context dictates they might;-

- (i) be embedded within soft landscaping,
- (ii) utilise a change in surfacing material to help make their purpose clear, and,
- (iii) be treated as a simple flared element to a hard surface space that allows assembly on collection day without obstructing vehicular traffic.



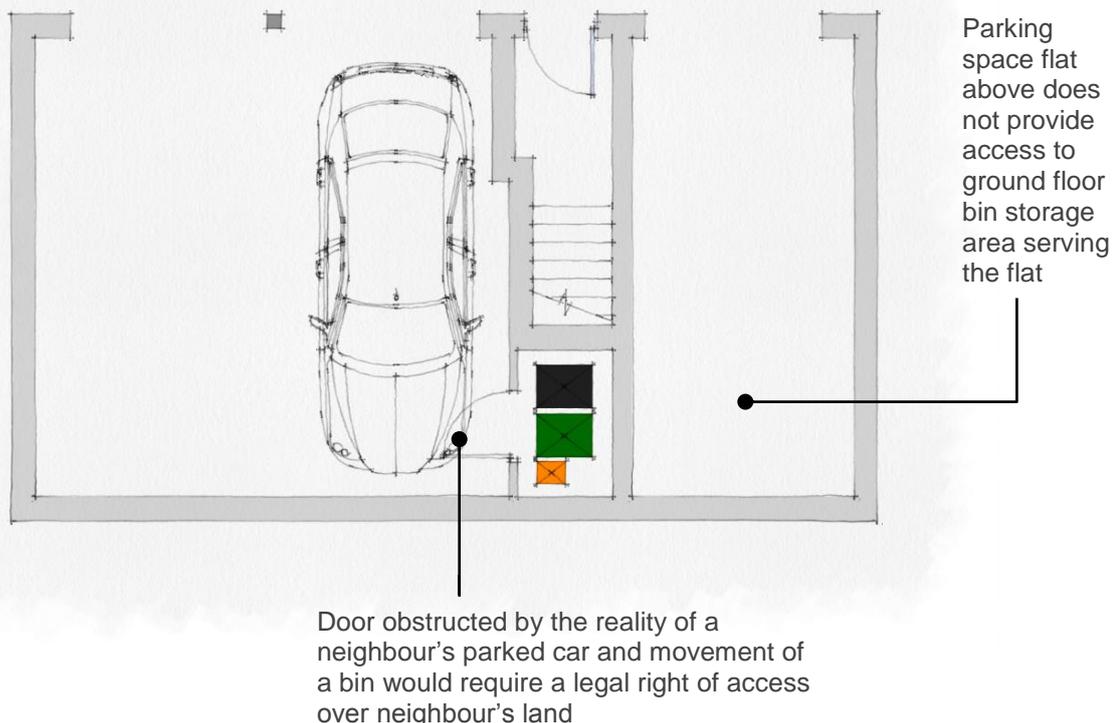
5.8 An 'at glance' summary sheet illustrating the pull and collection points made in both this Section and also Section 7.0 is available as **Appendix 1** to this Note.

6.0 Single flats above parking barns

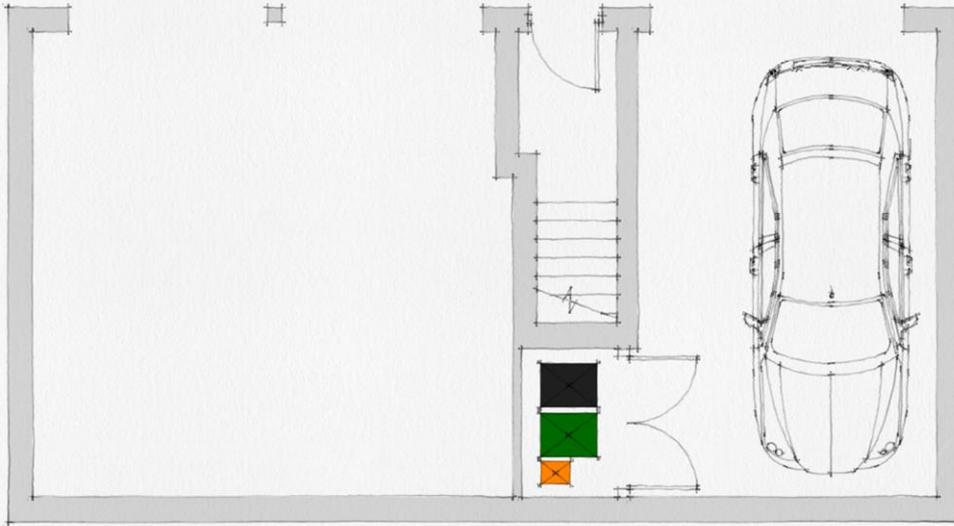
6.1 Unless a flat has a ground floor side or rear private garden where containers can be stored, an under-stairs store will typically be provided to serve this type of home. Access to the store is proposed adjacent to a parked vehicle. This internal store will now need to be sized appropriately to store wheeled-bins and a food caddy as well as any stored bicycles.

6.2 The route from the door to the store to the collection point will need to be one that is not hindered by a parked vehicle or a supporting post or pillar and also be step free. A 0.8m wide movement channel alongside a parked vehicle therefore needs to be factored in to the ground floor layout.

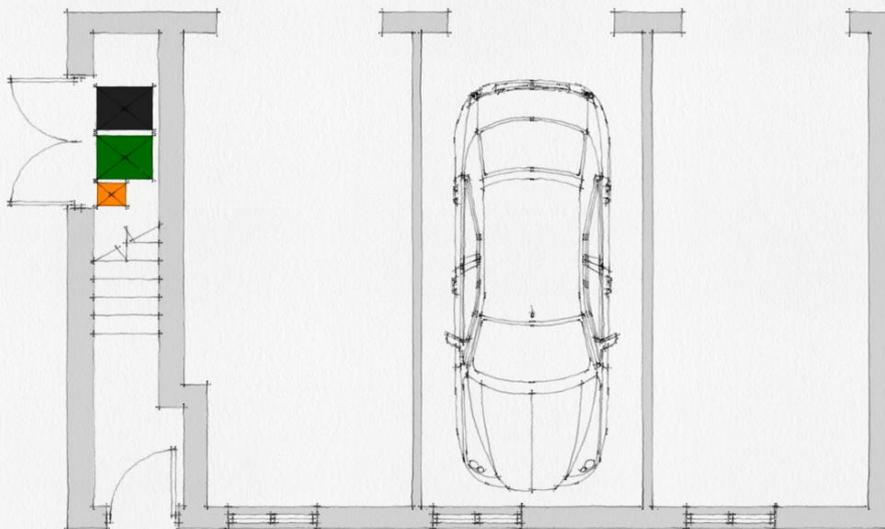
6.3 Single flats above parking barns often involve parking spaces serving other homes nearby. A layout that would require an occupier of a flat to pull a wheeled-bin through a parking area that would be owned by a neighbour presents a number of practical and legal issues and so should be avoided.



6.4 Where a store is accessed internally, designers will need to demonstrate how a single door to an under-stairs store will be able to be fully opened clear of a parked car to enable a movement with a wheeled-bin: a pair of doors or a single sliding door may be design alternatives that need to be considered.



6.5 External access to a store via a pair of doors may be a good alternative to internal access in certain situations. It has benefits of ease of use, avoidance of conflict with parked cars, easier access to a greater area of accessible under-stairs storage and creation of additional visual interest to what would otherwise be a blank flank wall. This approach can work with any necessary refuse collection point provided near the entrance into a private drive or court as the sketch example in paragraph 5.7 of this Note illustrates. A layout that ensures that the access doors to the store are overlooked by nearby from should be provided.



7.0 Communal stores for blocks of flats

7.1 A combination of 1100 litre 4-wheeled (for recycling and other waste) and 140 litre 2-wheeled bins (for food waste) will be used to service most blocks of flats. The dimensions

of these bins are given at paragraph 2.2 of this Note.

- 7.2 Large 4-wheeled bins are heavy and cumbersome to manoeuvre when laden. Direct, simple, maximum 10m step free level (or shallow ramp) movement routes are essential from communal stores to the point of collection with a dropped kerb to the carriageway clear of any on-street parking bays that are being provided. Shrub beds near communal stores need careful consideration and should be realistically sized and positioned to avoid being easily damaged by refuse collection movements.



- 7.3 The number of containers to be provided will influence the size and design of a communal store. It will primarily be dependent on the number of flats to be served but it will also need to demonstrate provision of reasonable circulation space for residents as well as how bins on different collection timetables would be able to be easily and quickly accessed, emptied and subsequently returned to the store.
- 7.4 In accordance with the Council's adopted Recycling and Waste Collection Policies and Procedure Statement and Guidance to Recycling and Waste Services in Multi-Occupancy Properties June 2014 the following grouped approach is required in respect of recycling (R), other waste(OW) and food waste (FW);-

	<u>1-6 flats</u>	<u>7-12 flats</u>	<u>13-18flats</u>	<u>19 & above</u>
(R)	1x1100ltr (or 4x240ltr bins)	2x1100ltr	3x1100ltr	'+1'per group of 6 flats(or part)
(OW)	1x1100ltr	2x1100ltr	3x1100ltr	'+1'per group of 6 flats(or part)
(FW)	1 x 140ltr bin for 1-5 flats & '+1' per each additional group of 5 flats (or part thereof)			

- 7.5 The 'per 5' provision relating to small 140ltr FW bins is derived from an analysis of the weight of a laden bin and its associated manoeuvrability by collection operatives. For large multi-storey blocks of flats where a private collection service is not envisaged, prior discussion will be needed with the Council as to how best a development might be serviced

and the role that innovative subterranean collection and storage solutions might have.

- 7.5 Overly tight communal stores requiring 'bin jigsaw' disassembly and reassembly will not be acceptable. Any necessity for operatives to need to move certain bins aside in order to gain access to others needing to be emptied will need to be limited given time and manpower constraints and any resultant blockages of the public highway will need to be avoided. Applicants will therefore be expected to provide;-
- (i) layout details showing the number and arrangement of the bins to be stored, and,
 - (ii) layout details showing functionality for easy weekly/alternate week collections
- 7.6 Double doors with tie-backs must be provided to help Council operatives move 1100 litre bins quickly and easily on collection day. The opening will need to be free of any central pillar to avoid impairing the through movement of bins. The doors will be unlocked to the store at the time of collection and re-locked when complete. In effect, the double doors become the Council's lockable access into the store. Fire Brigade (FB) 1 or FB2 key arrangements or FB1 padlocks must be provided.
- 7.7 Communal stores need to be positioned in a way that balances their visual impact as part of the street scene with an arrangement that functions well as part of providing a direct and easy to use route out to a waiting collection vehicle. An additional lockable single residents' access door should be provided wherever possible: this avoids the security of the double doors becoming compromised (which could lead to problems of anti-social behaviour). Amenity lighting within the store will be necessary.
- 7.8 Stores can be integral (as shown in this Note) or stand-alone within the grounds of the block of flats. Any proposed ventilation openings need careful thought in terms of their relationships to windows serving adjacent homes and/or located above in order to prevent disturbance to residents through unwelcome smells.
- 8.0 Appendices**
- 8.1 Appendix 1 – 'At a glance' summary sheet