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# Cycle Parking Guide For New Residential Developments



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# 1. Introduction

## 1.1

Cycling is becoming increasingly recognised for the contribution it can make as a sustainable and healthy form of transport for trips within and around our towns and cities. To support this, local authorities all over the country have been putting considerable effort into providing measures that make the choice to cycle a more convenient one.




## 1.2

However, whilst there is a growing understanding of good principles for cycle parking in the public realm, little thought has been given to what should be done where most journeys begin and end i.e. in the home. One in four residents cycle to work in Cambridge and nearly 20% of all trips are by bicycle within the city, so having somewhere convenient and secure to store their cycles is an important issue to Cambridge residents. Consequently having good quality cycle parking within the development can be a positive selling point for developers.

## 1.3

The purpose of this document is to give guidance on the nature and layout of cycle parking, and other security measures, to be provided as a consequence of new residential development. The guide aims to reflect best practice whilst taking into consideration the need to balance between the different demands on land use.

It is aimed at:

-  Developers and their agents;
-  Planning and highway engineering staff of local authorities;
-  Anyone else with an interest in this subject

**Providing enough convenient and secure cycle parking at people's homes and other locations for both residents and visitors is critical to increasing the use of cycles. In residential developments, designers should aim to make access to cycle storage at least as convenient as access to car parking.**

*Manual for Streets*<sup>1</sup> (8.2.1)

## 1.4

Cycle parking needs to be designed early on in the process, as space needed to accommodate cycles can be significant. The importance of well thought out design cannot be overstated, as all too often space set aside for cycle parking is left half empty because it is either impossible to manoeuvre cycles into the designated space, or the location is inconvenient. This in turn leads to cycles being left attached to railings or street furniture nearer entrances.

## 1.5

As there is a high level of cycle theft in Cambridge, with a large percentage of cycle thefts from residential areas, good quality cycle parking is key to the prevention of cycle theft and hence the promotion of cycling.

<sup>1</sup> Department for Transport 2007

### 1.6

It is imperative that cycle parking forms an integral part of any full or reserved matters planning application, rather than treating it as a secondary issue to be resolved by condition. Full details of the location, type of rack, spacing, numbers, method of installation and access to cycle parking should be provided.

### 1.7

This guidance cannot cover every potential parking situation or layout. Designers should not, therefore, simply rely on the information represented by the diagrams and summary tables etc. Instead they should seek to understand the principles involved in order to be able to determine for themselves, from first principles, what solution best suits the needs of those who will use the parking for many years to come.

### 1.8

Cambridge City Council's standards for the level of cycle parking (Local Plan, 2006, appendix D) to be provided for all classes of new development can be found in Appendix A of this guide.

## Retro-fit

### 1.9

In circumstances where cycle parking is to be provided as the consequence of the re-development of an existing building, for example conversion of a large house into separate flats, discretion may be exercised by this authority. Each application will be judged on its merits and solutions arrived at by the application of the principles and guidance set out in this document. In conservation areas additional consents may be required, especially if cycle parking is to be provided at the front of the building being developed. In such cases Cambridge City Council will be pleased to give guidance on the procedures to be followed.

**Figure 1: The lengths people have to go to in order to secure their bikes when adequate cycle parking is not provided.**

## 2. Best practice

Residential cycle parking should be:

### Conveniently sited

All residential cycle parking should be sited in a manner that encourages the use of a cycle as first choice for short trips. It should always be placed as close as possible to the main entry/exit points.

Cycle parking should not be sited where it will obstruct passing pedestrians or vehicles. It should be set out of the pedestrian desire line, e.g. between other pieces of street furniture. Visitor parking should be easy to find and located next to all main entrances.

### Accessible and easy to use

All parking should be easy to get to, with no inconvenient detours, steep slopes or narrow access ways. The facilities provided should be easy to use by all members of the community at all life stages, ideally without the need to lift or drag the cycle to park it.

### Safe and Secure

Residential cycle parking should always be secure and give cyclists the confidence that their cycle will still be there when they return. The location should help users feel personally secure with good lighting and natural surveillance.

### Covered

Parking provided for residents should always be covered and, where appropriate, this should also apply to visitor parking.

### Fit for purpose

The recommended choice of rack is the 'Sheffield' type stand. (See diagram 1, page 12). Where other racks or support systems are used, these should provide good support and allow the cycle frame and at least one wheel (preferably both) to be secured.

### Well managed and well maintained

Shared residential cycle parking in flats and apartments should be the subject of a funded maintenance regime that ensures that the parking area is kept clean, well lit and the parking equipment properly maintained. New residents must be made aware of the location, nature and function of the cycle parking provided. The process of issuing of keys and smart cards etc. should be transparent to all users.

### Attractive

The design of cycle parking facilities should be in keeping with their surroundings. Where stands are provided in the public realm stainless steel stands must have a brushed finish and should only be used where they will stand out against a contrasting background so they are visible to people with visual disabilities. Polyurethane stands are recommended for durability and will maintain appearance when chipped as the colour of the stand is pigmented through the Polyurethane.

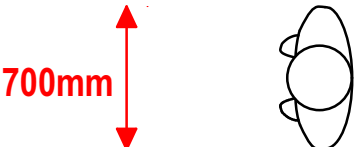
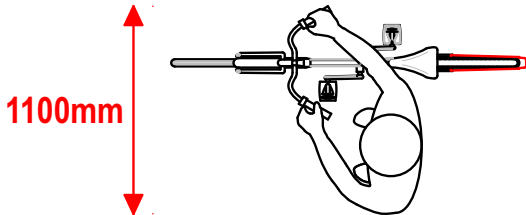
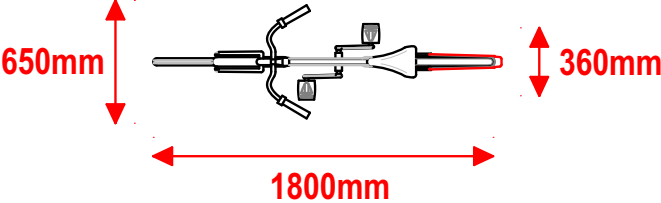




## 3. Basic dimensions

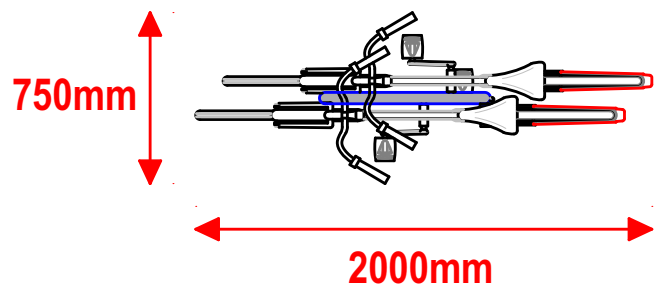
### 3.1

The purpose of this section is to ensure that adequate room is provided for both cyclists and cycles when using the parking provided. This requires an understanding of the space needed by a cyclist to get to the cycle parking and to ensure that the cycle parking itself is adequately spaced.

<p><b>A pedestrian</b></p> <p>Since good cycle parking will take account of all life stages, and utility cycling takes place all year round, the width of an average adult male pedestrian wearing normal winter clothing is taken to be 700mm. This compares with the normally accepted width of a mounted cyclist as 750mm.</p>	 <p>A diagram showing a top-down view of a person's shoulders and torso. A vertical red double-headed arrow to the left of the person indicates a width of 700mm.</p>
<p><b>A cyclist pushing a cycle</b></p> <p>Cyclists generally push their cycles by holding the handlebars. They also instinctively lean the cycle slightly towards themselves to avoid hitting their shins with the pedals and so – 1100mm is a general guide to the width needed.</p>	 <p>A diagram showing a cyclist from a side profile, pushing a bicycle. A vertical red double-headed arrow to the left of the cyclist and bicycle indicates a width of 1100mm.</p>
<p><b>A cycle</b></p> <p>These are the dimensions of an average adult-sized bicycle.</p>	 <p>A diagram of a bicycle with three red dimension lines. A vertical line on the left indicates a width of 650mm. A horizontal line at the bottom indicates a length of 1800mm. A vertical line on the right indicates a height of 360mm.</p>

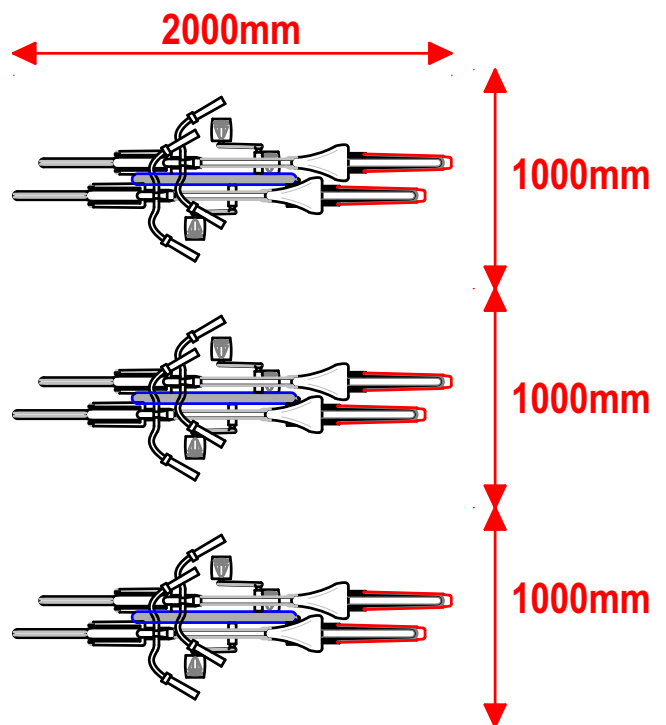
**Two parked cycles**

In order to avoid a clash of handlebars and pedals the second cycle to be parked will be parked slightly to the front or rear of the first. This gives an overall length for 2 cycles of 2000mm. The effective overall width of two cycles parked on one stand may be taken as 750mm. The amount by which a cycle sticks out from the centre line of a Sheffield stand may be taken as 375mm.



**Footprint**

The 'footprint' of two cycles parked at a Sheffield stand should be taken as 2m x 1m. This may be used to calculate the space required for a given number of stands. This also allows some space for baskets and panniers etc. An aisle is needed to access the stands and should be 1100mm in width. See diagram 5 for details.



## 3.1 Sheffield stands

### 3.1.1

Sheffield cycle stands are recommended for the following reasons:

- 🚲 They are liked by users (supports the cycle well and provides opportunities to lock back and front wheels as well as the frame, easy to use and no lifting required)
- 🚲 Two cycles can be locked to one stand
- 🚲 They are non-damaging to cycles if plastic coated (or similar)
- 🚲 They are available in a range of styles, colours and finishes
- 🚲 They may be supplied as 'toast racks' i.e. a number of stands on a common base which is easily bolted down
- 🚲 They are easy to maintain



Figure 2: Sheffield stands (shown here in the public realm).



Figure 3: 'A' frame style stands are an acceptable variation and recommended where children's bikes may be parked.

## 3.2 Sheffield stand dimensions

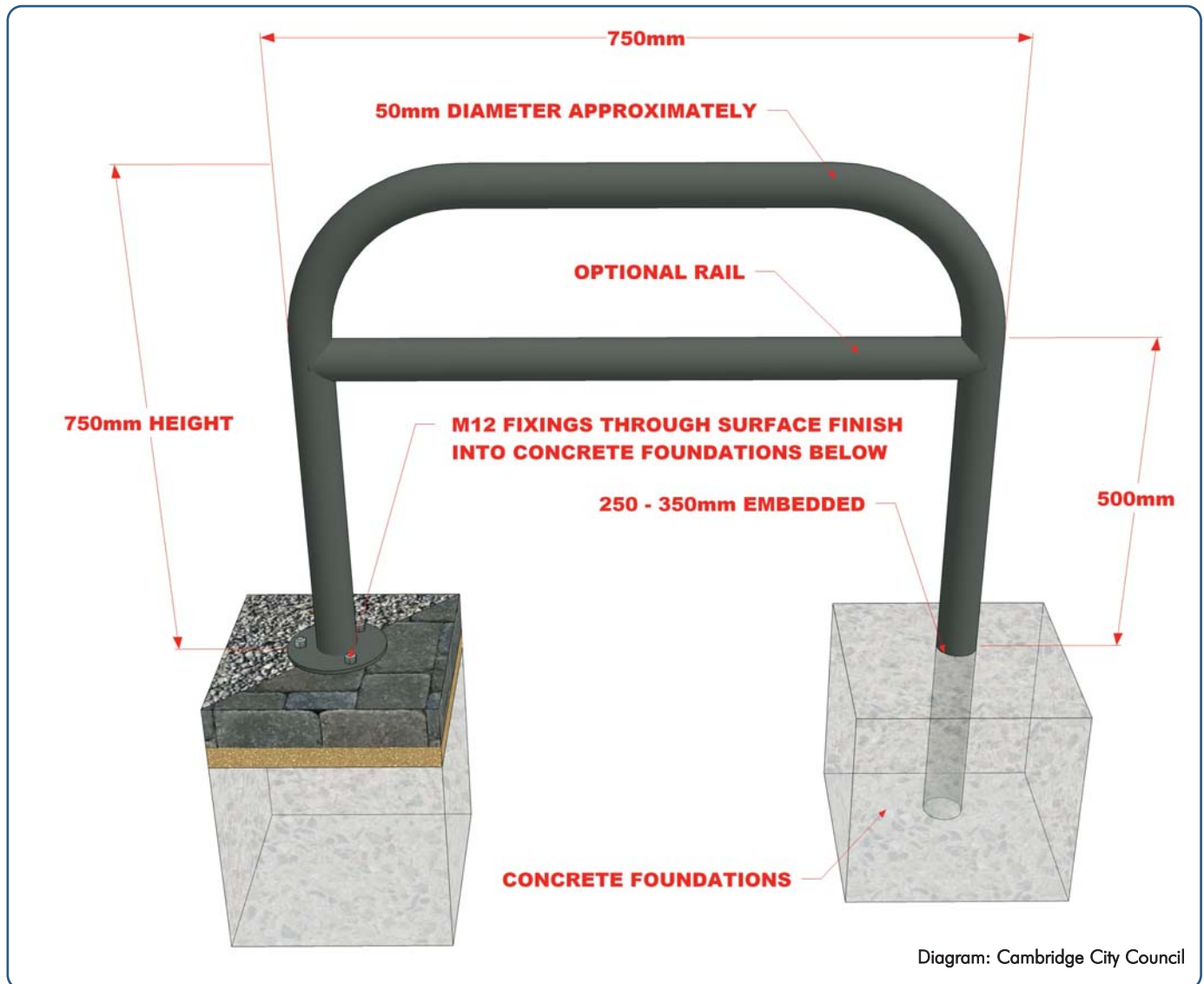


Diagram 1: Sheffield stand dimensions.

### 3.2.1

Stands should preferably be imbedded into 250 to 300mm concrete, if surfaced mounted they must be bolted into concrete foundations. The addition of a horizontal bar approximately 500mm above ground level is recommended as it makes it easier to secure children's cycles and reduce the likelihood of cycles slipping down the stand if properly locked. A frame stands (see figure 3) are an acceptable variation.

## 3.3 Spacing between stands

### Stands parallel to each other

#### 3.3.1

The minimum spacing between Sheffield stands should be 1000mm. This distance is always measured from the centre line and at right angles to the longitudinal axis of the stand, even when stands are at an angle to a wall or kerb line.

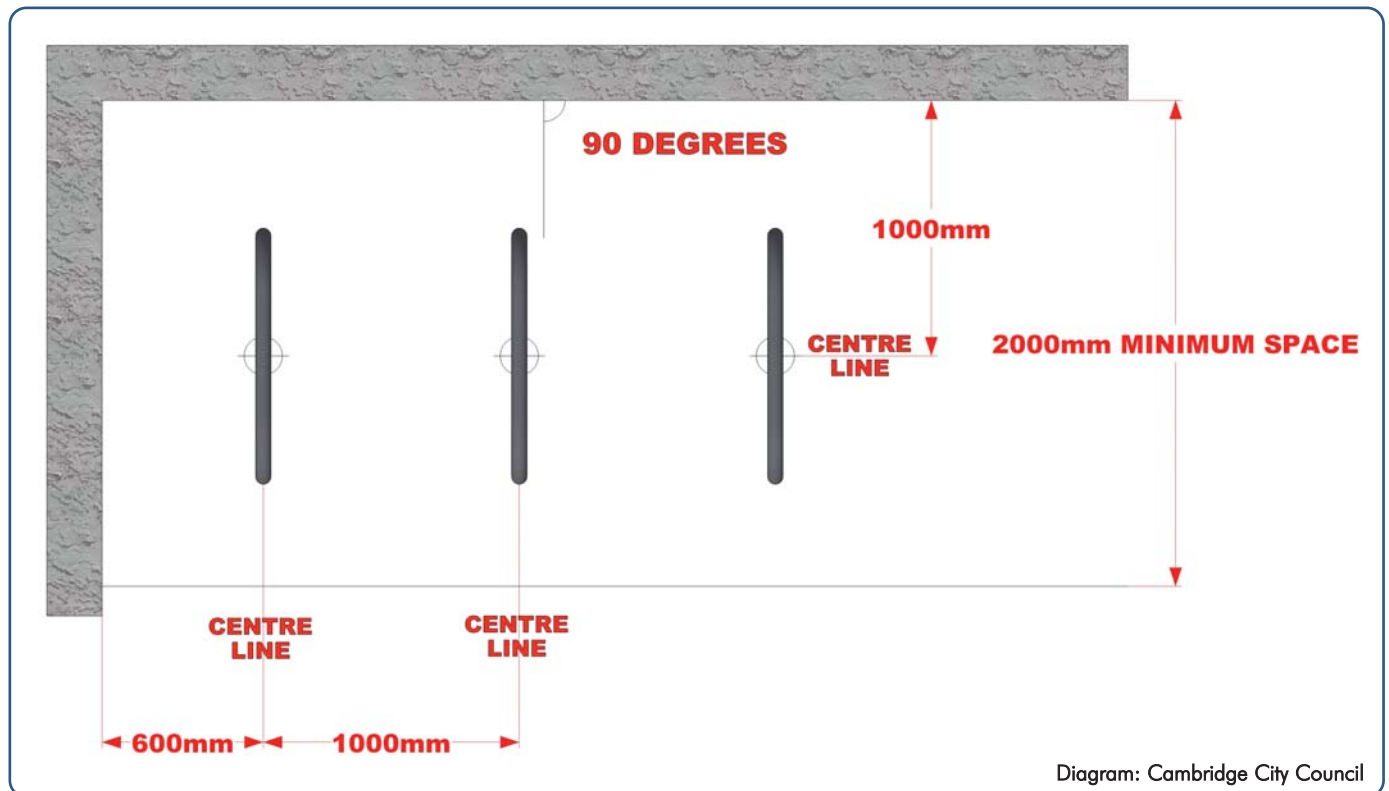


Diagram 2: Stands at right angles to a wall.

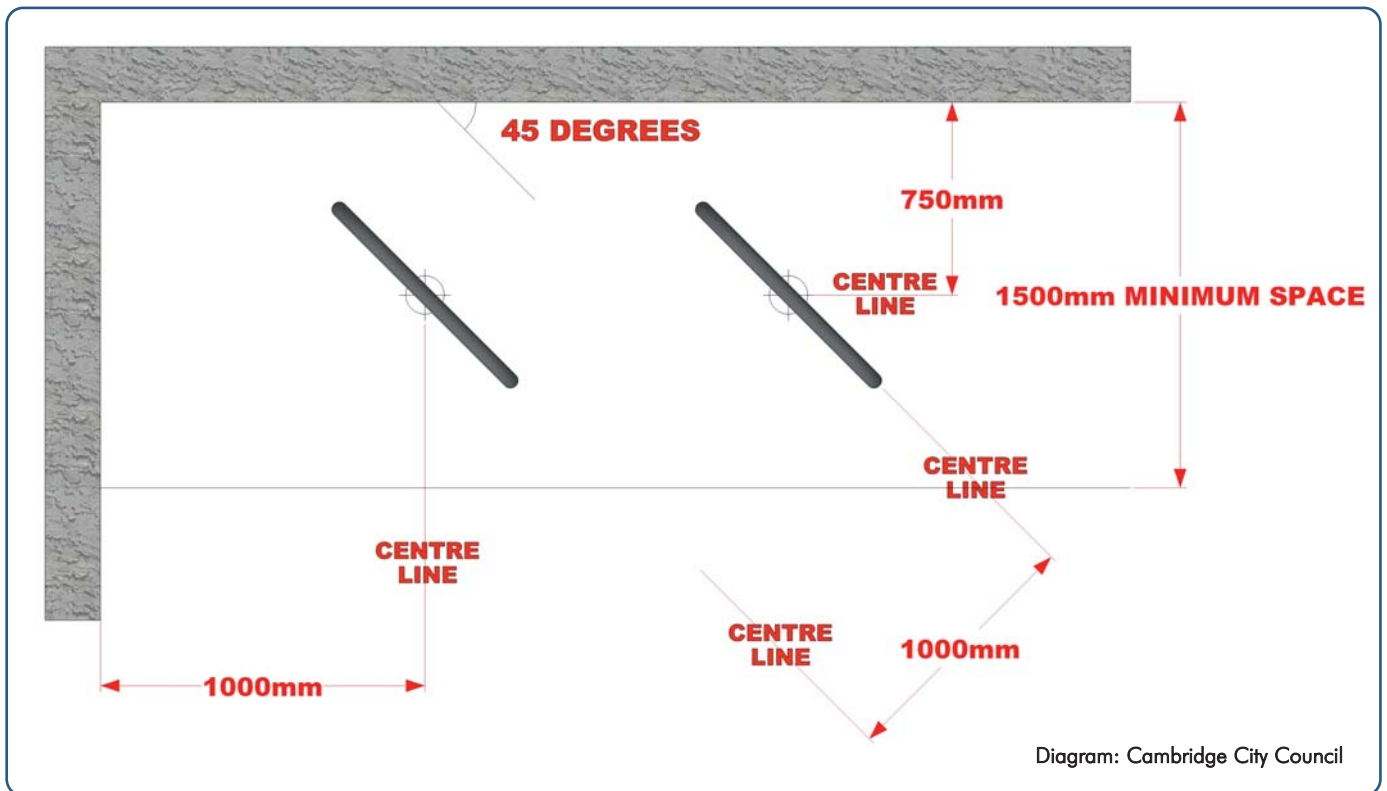


Diagram 3: Stands at 45 degrees to a wall



Figure 4: Stands 1000mm apart allow cyclists room to lock their frames in comfort.



Figure 5: Stands too close together only leave room for one cycle per stand.



Figures 6 & 7:  
At least 1000mm is needed  
to accommodate cycles  
with child seats, panniers  
and baskets

### 3.3.2

When used in the public realm, for example for visitor parking, the first and last stands in a row should be fitted with a tapping rail for the benefit of blind and partially sighted people. Sheffield stands should always be fixed at right angles to any slope. This overcomes any tendency for the parked cycles to roll downhill.

### Spacing between rows of stands

#### 3.3.3

Since two cycles parked either side of a stand have an overall length of 2000mm the centres of stands in line with each other should be a minimum of 2000mm apart this should be extended to 3100mm for an aisle (Diagram 5).

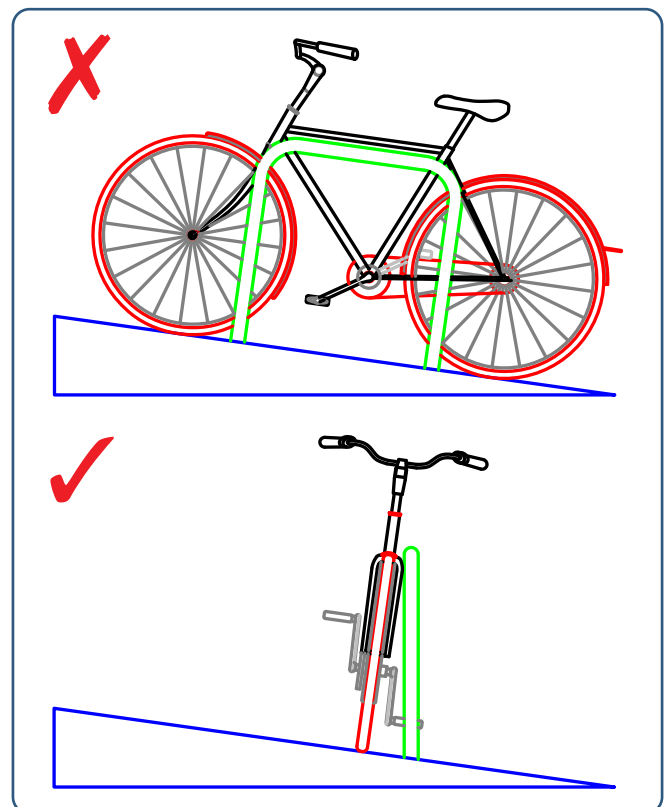


Diagram 4: Stands on sloping ground .



Figure 8: Spacious parking layouts.



Figure 9: Sufficient aisle width allows for easy access.

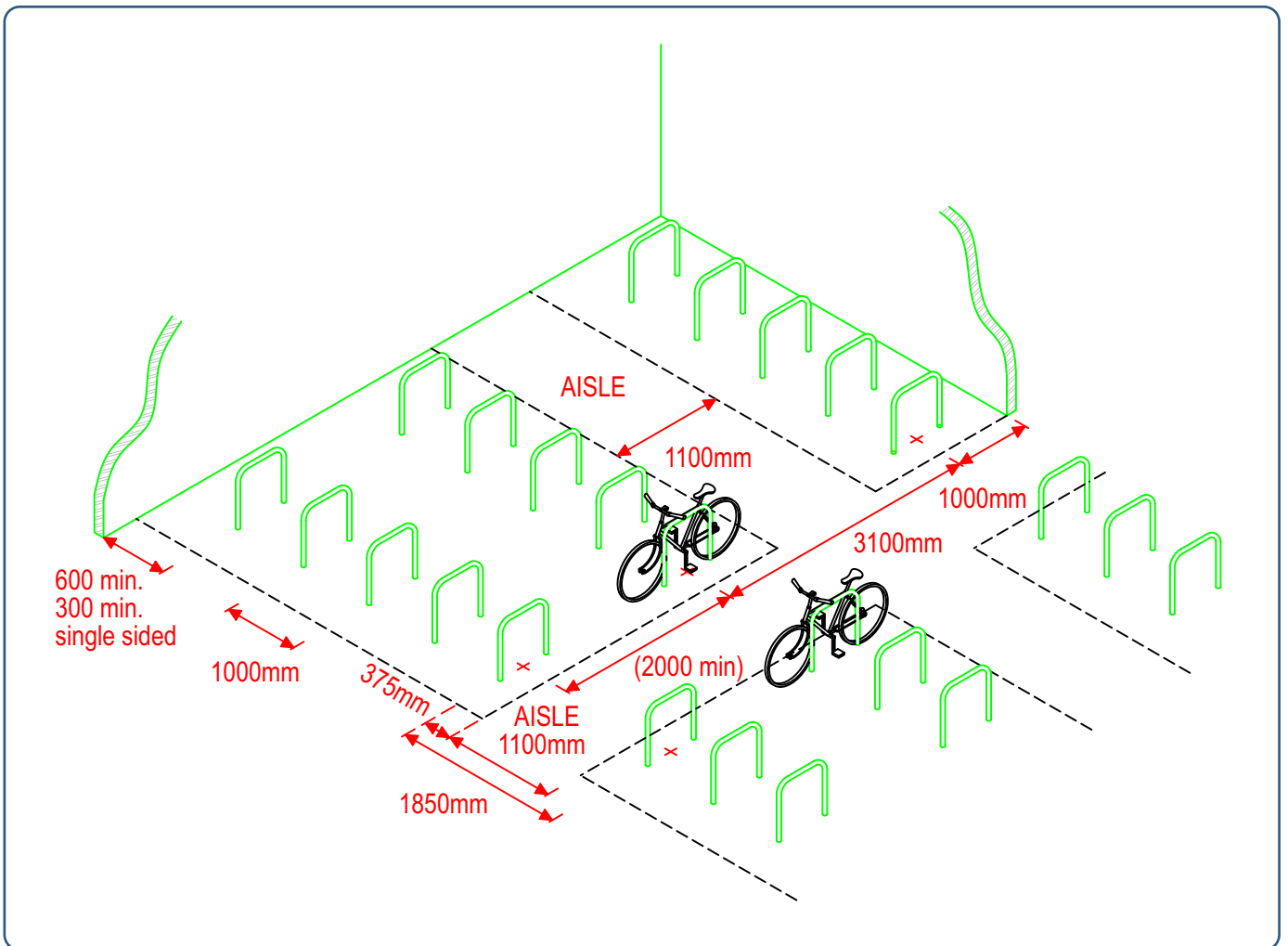


Diagram 5: Aisle widths and clearances to walls.



## 3.4 Aisle widths

### 3.4.1

It is essential to provide aisles between every 2 rows of Sheffield stands, and at regular intervals between groups of stands. The aisles should be a minimum of 1100mm (equivalent to 3100mm between the centres of stands) to allow cyclists to get past parked cycles and turn to park (Diagram 5).

### 3.4.2

Where the numbers of racks served off an aisle reaches 20 or more on each side, and therefore two-way flows of cyclists pushing their cycles are likely at peak times, aisle widths should be increased by at least 500mm.

## 3.5 High capacity stands

### High-low stands

#### 3.5.1

The use of High-Low stands is generally not acceptable for new residential developments but may be considered on a case-by-case basis (e.g. large blocks of student accommodation). Fixing posts must be provided between the stands allowing the frame of the bicycle to be locked to it. Although common in mainland Europe they are not universally popular with users. Many of these styles are difficult to use when cycles are fitted with baskets and child seats and usually require lifting of the cycle. This can be difficult for the less able and pregnant women or those with heavy cycles. High-Low Stands do have the benefit of keeping the rear of cycles in a neat line.

#### 3.5.2

The aisle width for High-Low stands should be a minimum of 1000mm measured from the rearmost point of the parked cycle (see individual manufacturer's specifications for details). The spacing between stands should be a minimum of 400mm between centres at 90 degrees and 500-600mm between centres at 45 degrees.

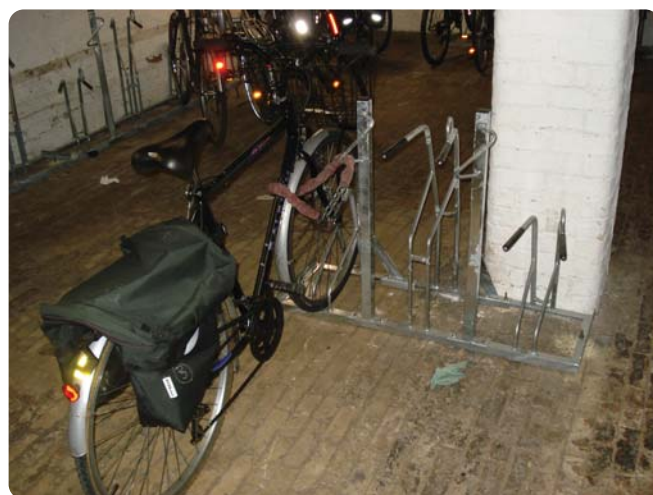


Figure 10 & 11: High-Low stands: Note the fixing post between the stands.

## Two-tier stands

### 3.5.3

Two-tier stands are generally not acceptable because cyclists often find them difficult to use, especially the top level. They may be considered for large volumes of student cycle parking (above 350 spaces) where significant space saving can be demonstrated. As above they must be designed to allow the frame of the cycle to be locked to the stand, and accommodate cycles with baskets. A minimum aisle width of 2500mm beyond the lowered frame is required to enable the cycle to be turned and loaded in comfort. An overall aisle width of 3500mm should be provided where frequent two-way movements are likely within an aisle with stands on either side. The need to provide a wider aisle means that apparent density advantages of such systems are reduced. The headroom required will vary but generally 2800 to 3000mm will provide an adequate margin above parked cycles.

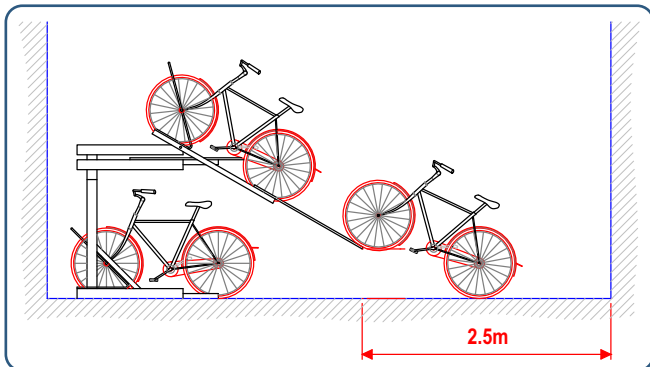




Diagram 6: Aisle width for two-tier parking.

## 3.6 Turning space

### 3.6.1

It is necessary to check whether adequate space has been provided to allow a cyclist to access the cycle stands provided. The following four diagrams illustrate the outer swept paths of common manoeuvres.

-  pushing a cycle through a right angle (to left and right)
-  turning through 180 degrees to reverse direction (to left and right).

### 3.6.2

The diagrams may be reversed to represent a cyclist standing on the right hand side of the cycle. It should be noted that the outer edge of the 'envelope' is generally created by the elbow/shoulders of the cyclist on one side and either the handlebars or the front wheel on the other. The latter occurs when the cycle is leant over during the turning manoeuvre.

### 3.6.3

Whilst the space required to turn a cycle will vary with the size of the cyclist and his or her ability to handle their cycle without lifting or dragging it, the drawings represent the amount of free space needed to achieve the various manoeuvres in comfort.

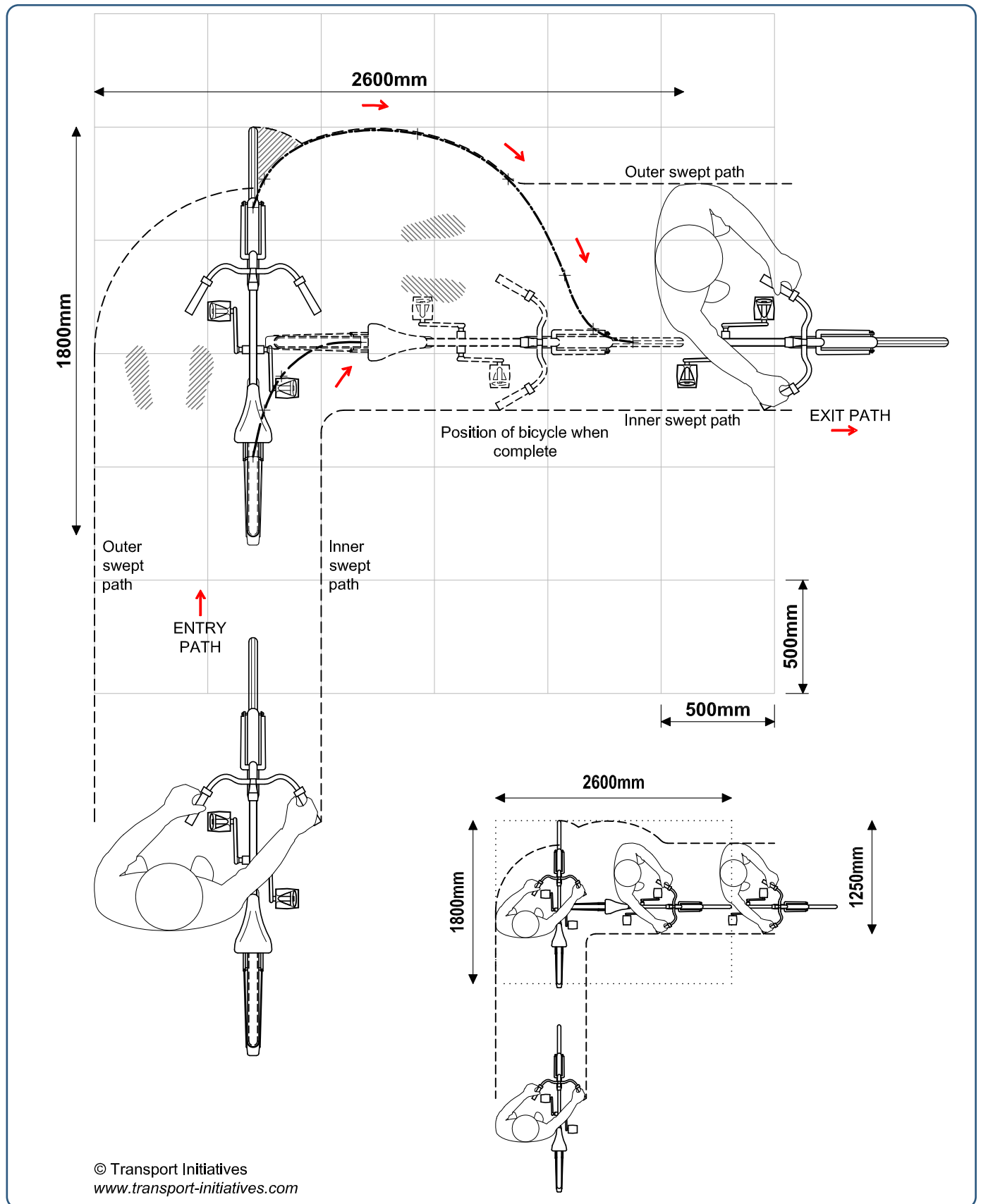


Diagram 7: Cyclist stood on left of cycle turning right.

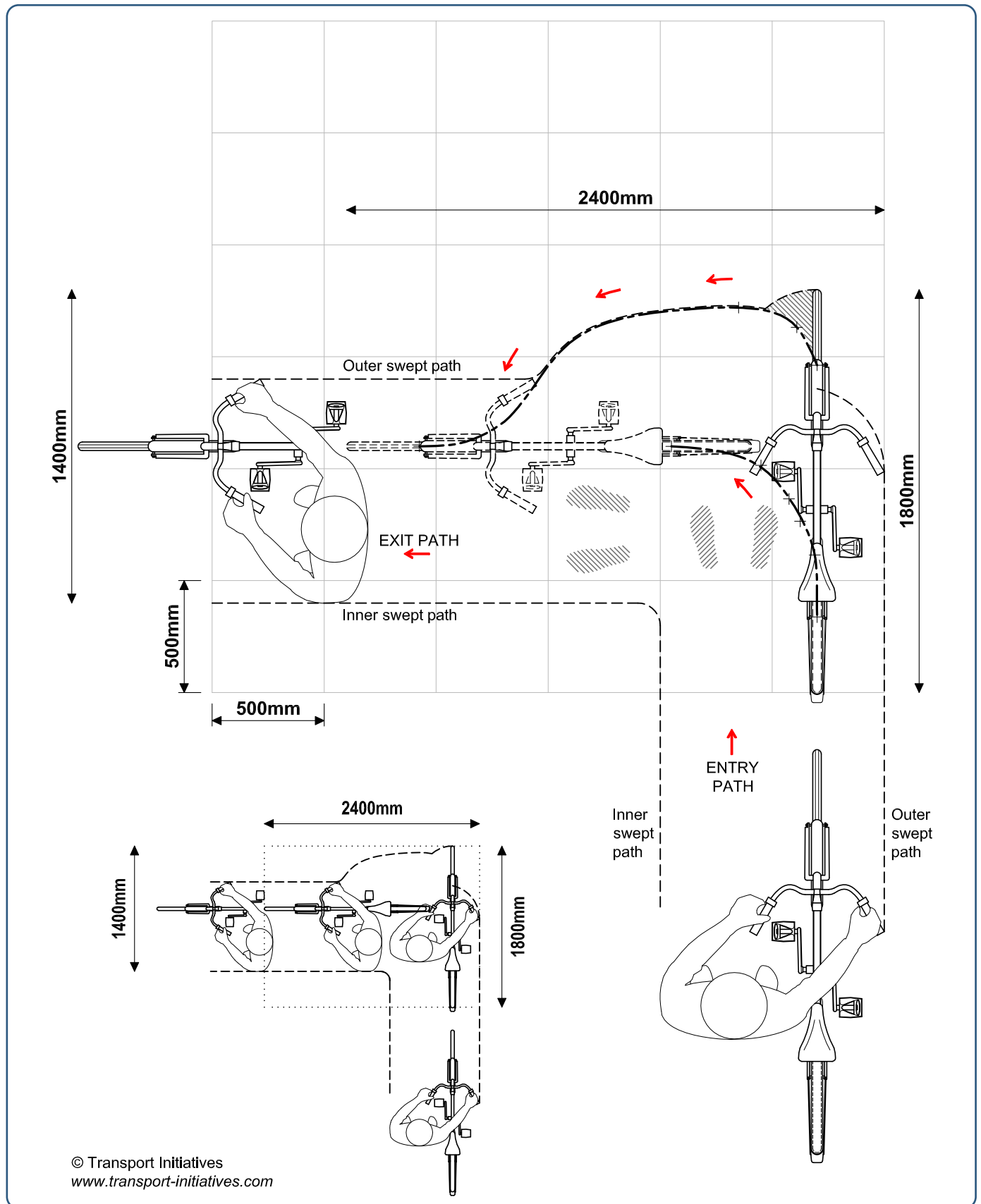


Diagram 8: Cyclist stood on left of cycle turning left.

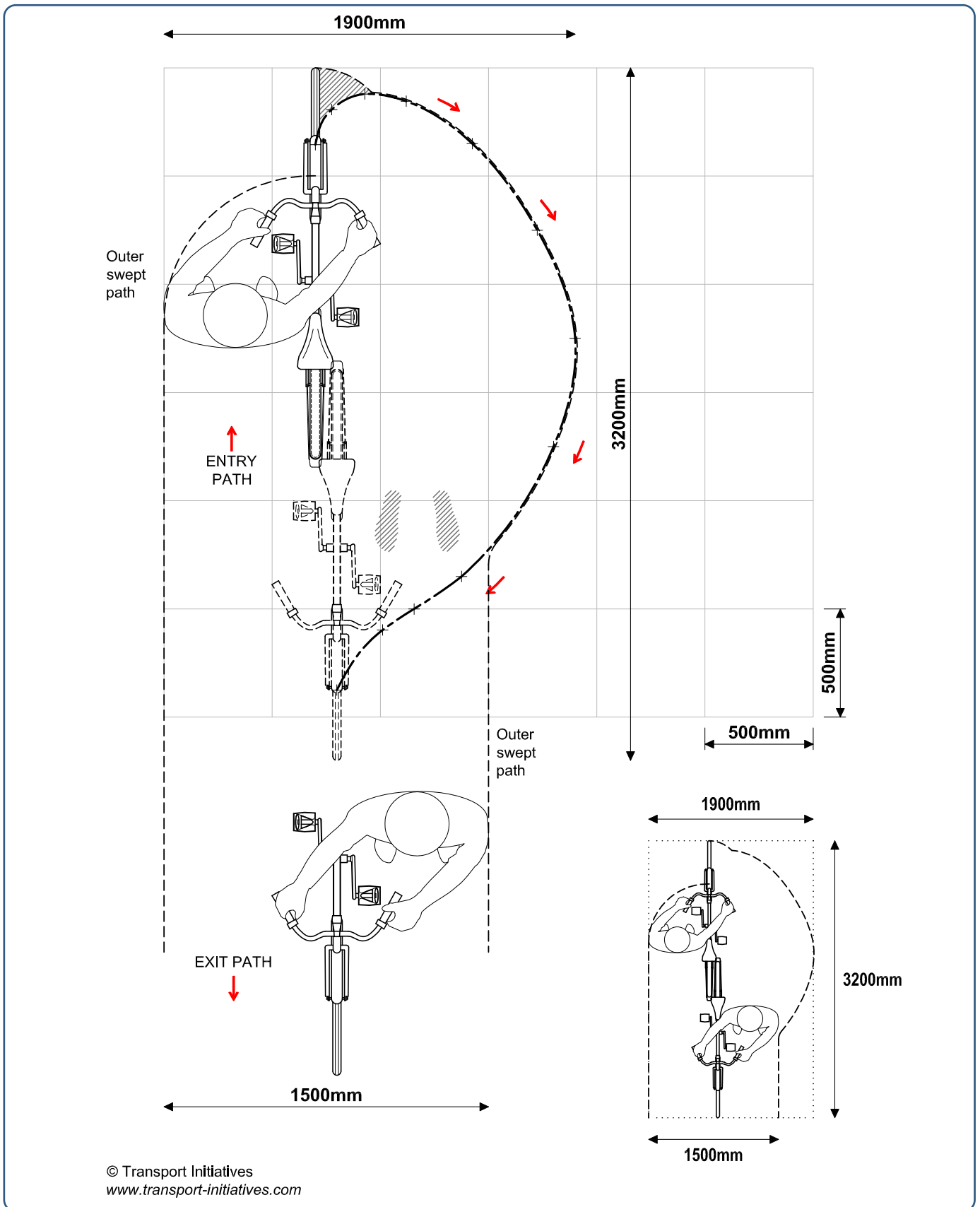
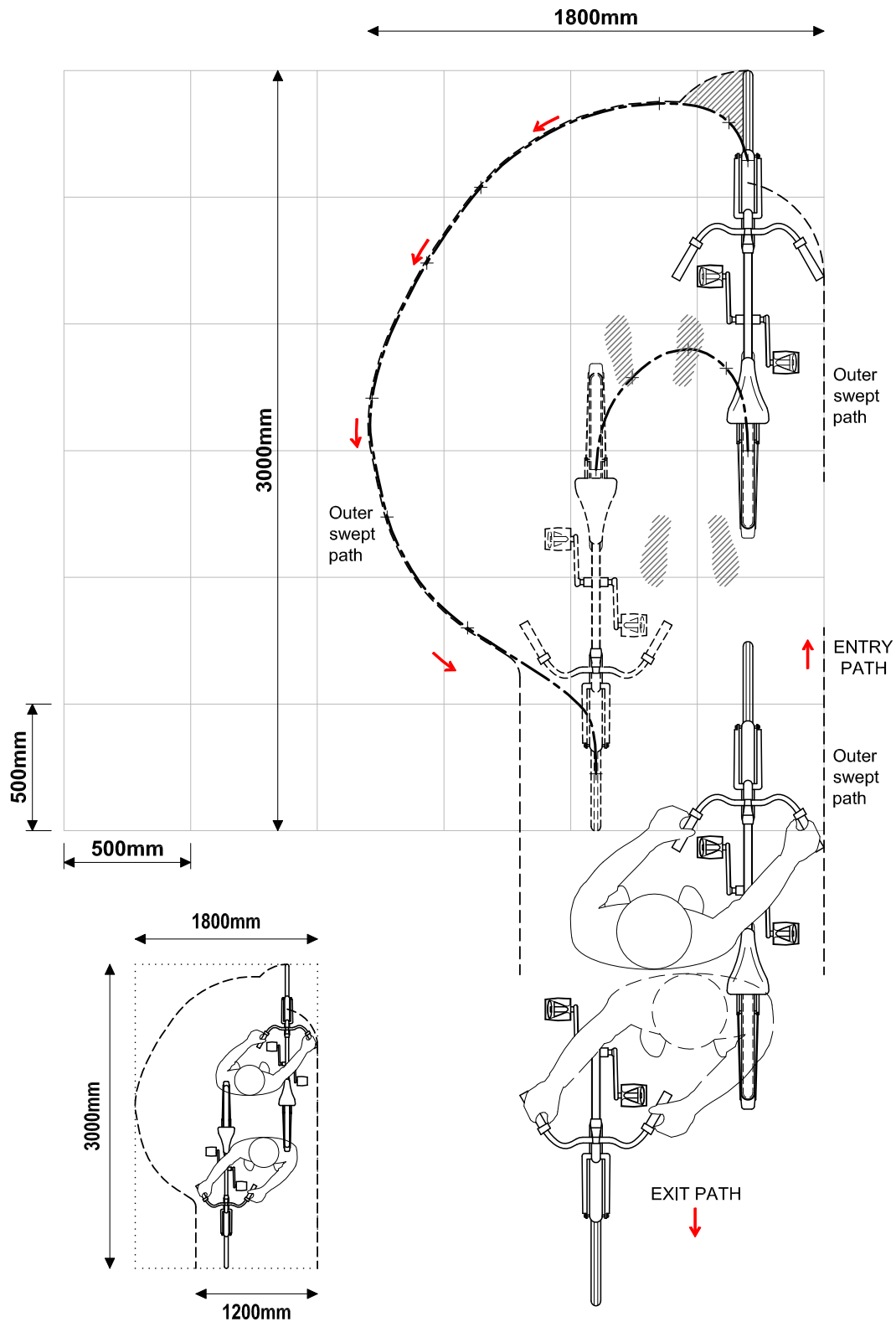


Diagram 9: Cyclist stood on left of cycle turning right through 180 degrees.



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Diagram 10: Cyclist stood on left of cycle turning left through 180 degrees.

### 3.6.4

In addition to demonstrating the amount of space needed to turn a cycle to park it, diagrams 7 and 8 above also serve as indications of the width of a lobby needed to turn at right angles and pass through a door. As illustrated in diagram 11 below, a small margin is needed between a cyclist and any enclosing wall. A margin of 150mm is recommended.

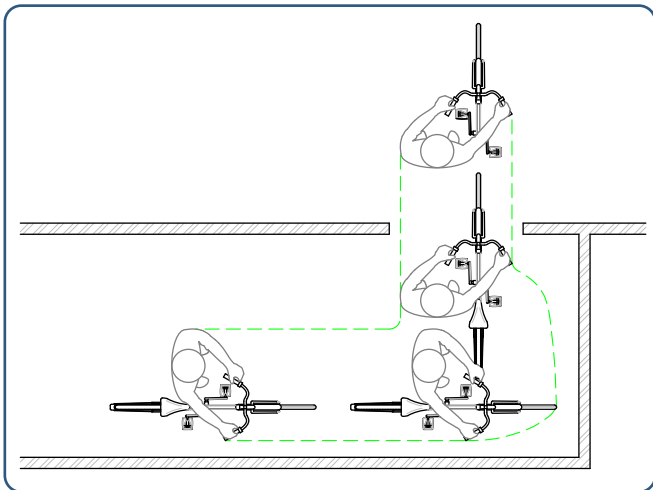


Diagram 11: Indicative lobby in front of a door (derived from turning diagrams).

## 3.7 Rear access

### 3.7.1

If unavoidable, where cycle parking is provided to the rear or sides of private dwellings, the access way should preferably be 1500mm wide or a minimum of 1200mm over a distance of no more than 10m.

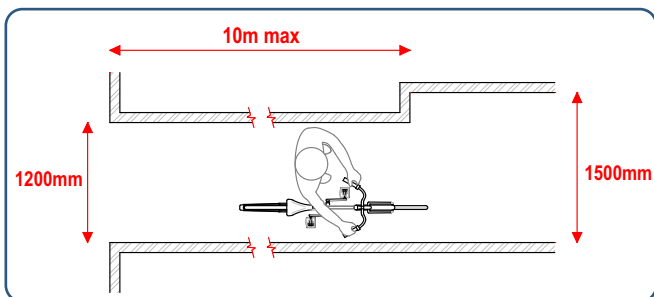


Diagram 12: Access widths.

## 3.8 Door widths

### 3.8.1

Any door or gateway that cyclists have to pass through with their cycle should be at least 1000mm.

### 3.8.2

External and internal door and gates to larger communal cycle parking should be a minimum of 1200mm. (made up of double doors, one of which should be at least 800mm wide). Doors should be self-locking and fitted with a mechanically damped closer, which will allow cyclists to pass in good time.



Figures 12 & 13: Communal (top) and private (above) access doors to cycle parking can be both wide and attractive.

## 3.9 Consecutive doors and corridors

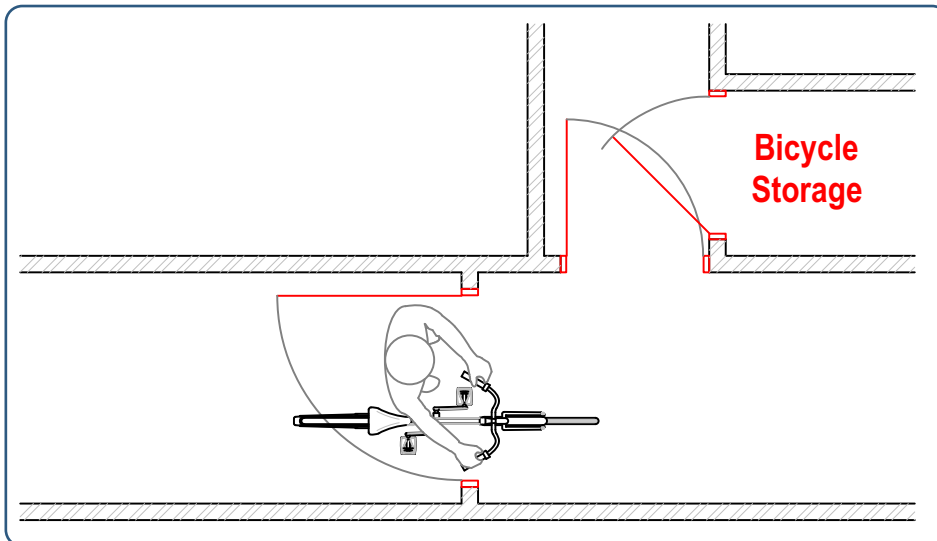
### 3.9.1

Consecutive doors should be avoided. Where they are unavoidable they should be arranged to permit easy access. When faced with any kind of door that does not open automatically a cyclist will have to stretch to first reach for the door handle and then hold the door open whilst passing their cycle through. This means that the distance between consecutive doors must be at least the sum of the width of the door being passed through plus the length of a cycle. In communal areas this should be a minimum of 3500mm. This figure may be reduced by the

use of double doors with workable layouts derived by the use of the swept path diagrams (see diagram 14).

### 3.9.2

Corridor widths should also be sufficiently wide to permit both easy access and to accommodate any turning movements that may be unavoidable. The inclusion of automatic doors should be considered on a case-by-case basis but should generally be considered for larger cycle parks. Push buttons to activate automated doors should be conveniently sited to aid ease of use taking into consideration doors opening towards the cyclist holding a bike (i.e. the door width plus 1000mm).



**Diagram 13: Bad design resulting in inadequate space to turn and open and hold doors with turn made worse by conflicting doors.**



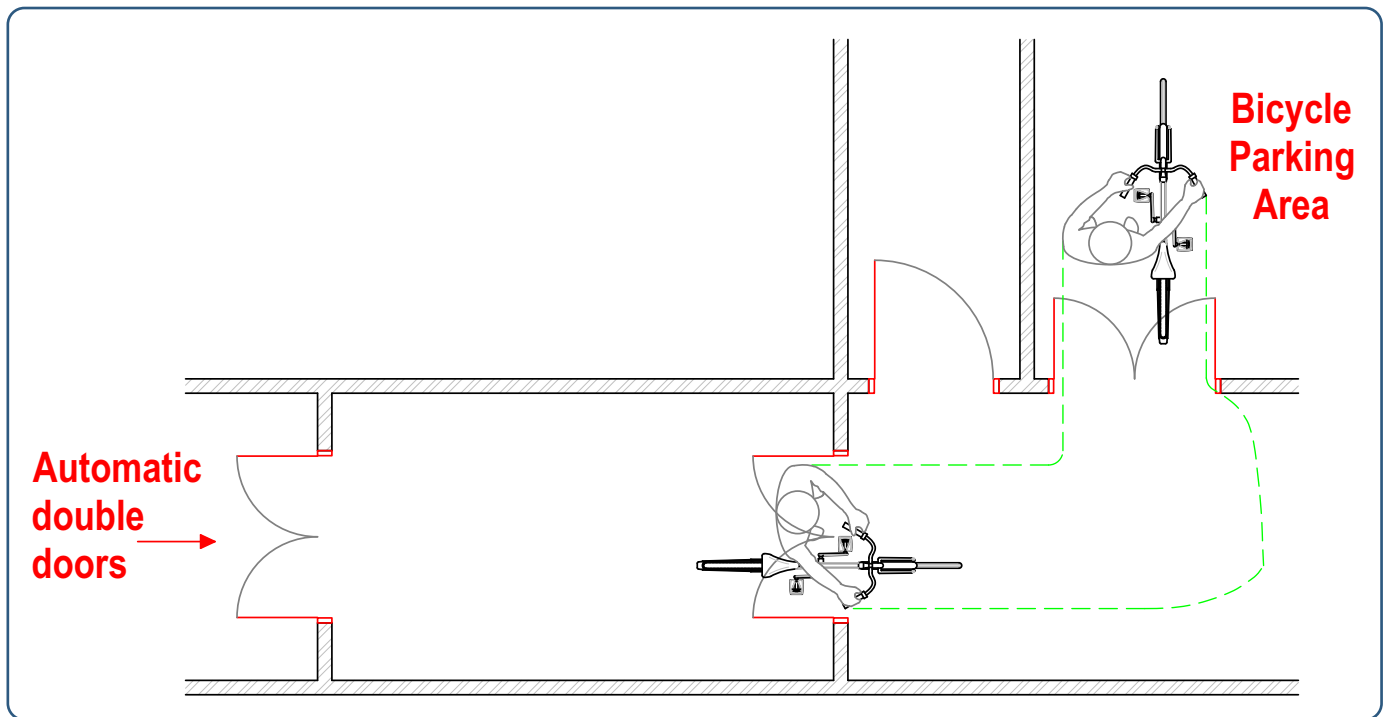


Diagram 14: Good design derived with the aid of swept path diagrams (assumes automatic double doors).



## 4. Cycle parking in different types of residences



Figure 14: Wide garage doors can be a design feature.



Figure 15: Secure parking for both cycles and car provided by the use of two gates.

### 4.1 Houses

#### 4.1.1

Cycle parking for residents should be provided in a secure, covered and lockable enclosure, preferably within the footprint of the building. To promote ease of use and cycling as the modal choice the parking should usually be at the front of the building either in a specially constructed cycle shed or an easily accessible garage. The former should be designed with careful consideration in terms of its setting and urban design.

#### 4.1.2

Visitor parking should be provided as close as possible to the front of the house and take the form of a suitable stand or wall bar/ring: mounting height 500mm (Appendix C).

### Houses with garages

#### 4.1.3.

If dedicated cycle parking is not provided elsewhere, garages can be a convenient and secure place to park cycles if designed correctly. The size of the garage must allow cycles to be removed easily without first driving out any car parked within it.

#### 4.1.4

The following illustrations have allowed for a typical family car, with allocated storage space for cycle parking and additional equipment, these dimensions are particularly important where garages are the sole car parking provision.

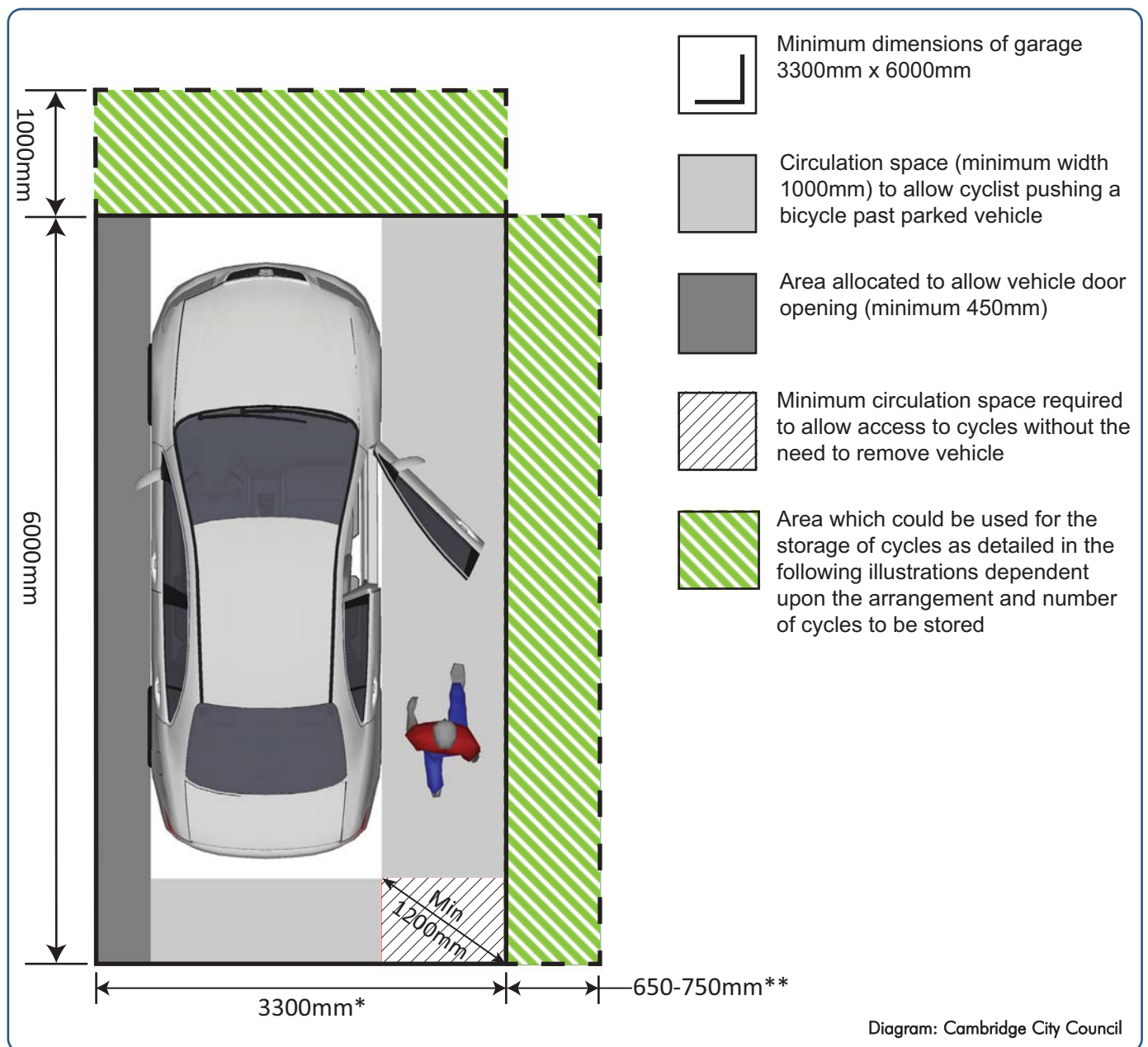


Diagram 15: Garages with cycle parking.

**Note**

\* Width based on the average width of a car, a small gap on the passenger side and an aisle width to access the cycle parking.

\*\* Depth dependent upon the arrangement and number of cycles parked, 650mm refers to minimum depth for 1 cycle, 750mm refers to 2 cycles parked adjacent to each other.

**4.1.5**

The illustrations on the following page show the possible arrangement of a cycle storage area when incorporated within the design of a garage. Garage arrangement is based on the minimum 3300mm x 6000mm area allowing parking for a typical family car and the necessary circulation space for access to cycles.

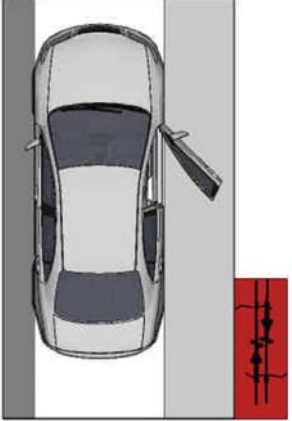
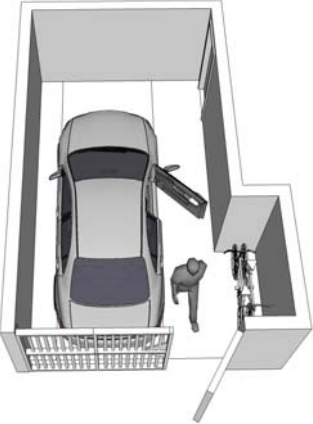
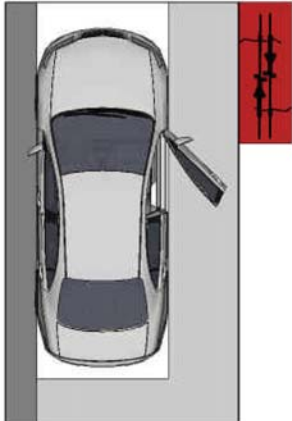

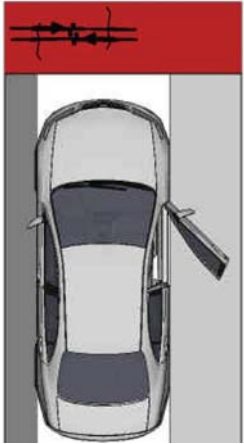

	Location of cycle storage within garage	3-D Illustrations of cycle storage	Design Considerations
<b>A</b>			<p>Cycle storage located to the front of the garage, this provides the greatest level of access to cycle storage area and aids in the storage and removal of cycles past parked vehicles. More enhanced levels of access could be provided by full width garage doors providing direct access to the cycle storage area.</p> <p>Arrangement of this type is suited to lower density areas where wider plot widths can be accommodated.</p>
<b>B</b>			<p>Cycle storage located to rear side of garage.</p> <p>Arrangement of this type is suited to lower density areas where wider plot widths can be accommodated.</p>
<b>C</b>			<p>Cycle storage located at rear of garage with additional depth required for manoeuvring bicycles past parked vehicles.</p> <p>Arrangement of this type is particularly suited to dense urban areas where a narrow plot width is required.</p> <p>Diagram: Cambridge City Council      Not to scale</p>

Diagram 16: Location of cycle storage in garage.

## Houses without garages

### 4.1.6

When provided within the footprint of the dwelling or as a freestanding shed, cycle parking should be accessed by means of a door (secured by mortice lock) at least 1000mm wide and be at least 2000mm deep. The diagrams below show minimum internal dimensions.

### 4.1.7

The cycle parking should be secure, covered, preferably constructed from the same materials as the main structure, and of a size derived

from the guidance given below. Where more than three bicycle spaces are required an aisle should be included for access and cycle stands should be provided (Appendix C).

### 4.1.8

Where access to cycle parking is in a secure area, restricted to residents only, open stands that are covered are acceptable.

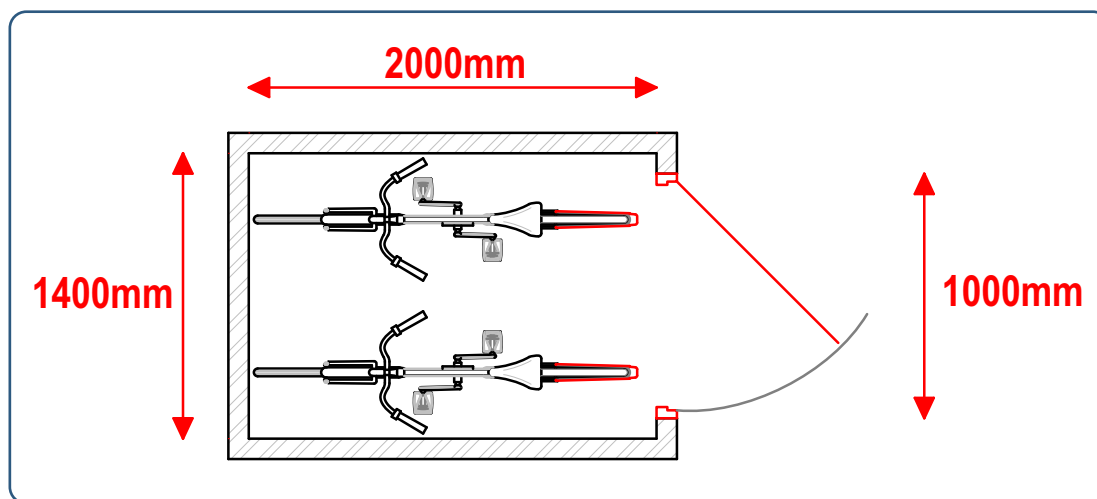


Diagram 17: Minimum space to park two cycles and remove without lifting.

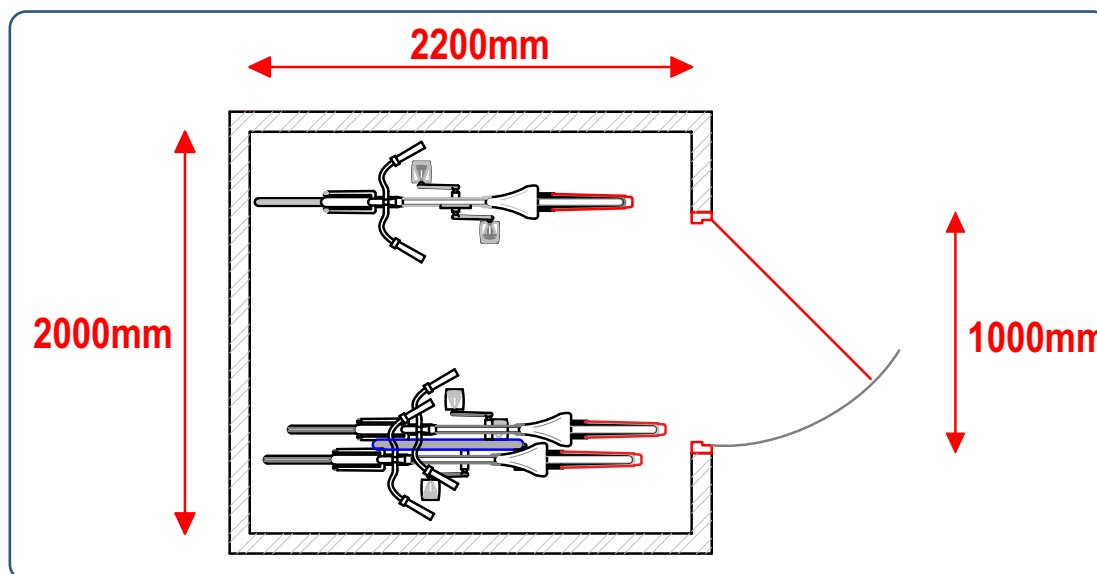


Diagram 18: Minimum space required to park 3 cycles.

**4.1.9**

Domestic wooden sheds are not recommended unless they have walls of tongue and groove construction at least 18mm thick. Mortice locks and not padlocks should secure doors.

**4.2.0**

At least 1m<sup>2</sup> storage space must be provided within the shed, for garden equipment etc, in addition to that provided for cycle parking (see diagrams 17 and 18).

**Figure 17:**  
Good practice: Mortice locks provide greater security.



**Figure 16:**  
Bad practice:  
Padlocks are only as strong as their fixings.



**Figures 18 & 19:** Cycle parking built into an extension of the porch: preferred approach (Note: doors should be wider and mortice locks fitted).



**Above and right, figures 20 & 21:** Front bin stores used for cycle parking instead of sheds intended for cycle parking in the back garden. This has led in turn to the bins being left outside to the detriment of the public realm.



**Figures 22 & 23:** Narrow access to cycle parking leads to cycles being parked in the public realm.

## 4.2 Flats, apartments and other multi-occupancy dwellings

### 4.2.1

Whether provided internally or externally, cycle parking should be sited within 20m of the relevant entrance of the building and in all cases closer than the nearest non-disabled car parking space.

It should be well lit, create a sense of personal safety, and included in any premises' CCTV surveillance system. External cycle parking should be overlooked by dwellings and not hidden by landscaping or planting. In all cases, secure compounds must not have unsecured apertures large enough for anyone to climb in or a cycle to be passed through.



#### 4.2.2

Parking areas should preferably be housed internally on the ground floor (Appendix B). As a general rule, it is not recommended that parking for cycles should be accommodated within individual apartments above ground floor level. Where lifts are provided for the use of cyclists these should be sufficiently large to accommodate their cycles i.e. at least 2m deep and preferably 2m wide with an overall door aperture of 1.2m.

#### 4.2.3

Visitor cycle parking spaces should be provided at each public entrance of blocks of flats.

#### 4.2.4

The parking should also be connected to the general highway and cycle networks by a well lit, hard surfaced access path.



**Figure 24: Good coverage provides protection from driving rain.**

### 4.3 Small blocks of flats

#### 4.3.1

The preferred solution is for the cycle parking to be within the building footprint with an individual cage for each dwelling or a rack space for each cycle (Appendix B). Cycle parking provided outside of the building should be within a lit, covered enclosure, again with cages or racks. If the parking area is open access, the enclosure should be lockable.

**Figure 25: Cages within communal area assigned to individual dwellings.**



### 4.4 Medium and large blocks of flats

#### 4.4.1

Cycle parking should be spread throughout the site and relate to either each block or floor of the flats depending on the size of the building. When located within an under-croft or underground car parking area the cycle parking should, again, be sited next to the relevant access points (and closer than the nearest non-disabled car parking space). When the car parking area is not itself subject to some form of key-controlled entry then the cycle parking should be provided in secure lockable compounds relating to each floor or block. A maximum of 50 cycles is recommended for each enclosure.

#### 4.4.2

Underground parking areas should be well lit. Consideration may be given to separate ramped access for cyclists but this must be no less convenient than the access provided for motor vehicles. Where used by cyclists, ramps should not exceed a gradient of 7% (1:14), with

a rounded transition at the top and bottom of the ramp. Single lane ramps shared with motor traffic with a width of between 2.75m and 3.25m should be avoided.



**Figure 26:** Cycle parking within a secure area. Note: the incursion of the car into cycle parking space which should be designed out from the beginning.



**Figure 27:** Secure cycle parking compound outside flats.



**Figure 28:** Bad Practice: Thieves gain access by breaking wooden slat to open lock on the inside.

#### 4.4.3.

Where access to the cycle parking area is derived by means of steps, these should always be accompanied by a wheeling ramp, preferably on both sides of the steps to allow users to pass when going in and out and to wheel their cycles on their natural side whether going up or down. A rail should be provided on one side and the ramp should be narrow enough for a person to use the rail if needed. The slope of any ramp (and steps) should always be as shallow as possible to promote ease of use.



**Figure 29:** Steps and wheeling ramp giving access to communal cycle parking area. Two ramps would improve ease of use.

# 5. Management of cycle parking areas

## Private cycle parking

### 5.1

The long-term management of private cycle parking will rest with the owners or the tenant of the dwelling. No control can be exercised over the subsequent maintenance of the facilities provided. It is essential therefore that, as far as possible, cycle parking is low-maintenance, easy to use and self-explanatory to future owners and tenants. Advice on the use of cycle parking should be provided in welcome packs where these are required as part of the development's residential travel plan.

## Shared occupancy

### 5.2

The future maintenance of the cycle parking equipment and surrounding area should be agreed as part of the planning process usually as part of the Travel Plan. This should include not only the day-to-day up-keep but also the issuing of keys or other entry devices together with the introduction of the facilities and their use to new residents. Doors to shared cycle parking facilities must be self-closing and locking.

### 5.3

Any site travel plan should also encourage the setting up of a cycle user group which can work together to share specialist tools, quality pumps and general help amongst its members.



**Figure 30 & 31: The use of smart card and proximity keys is recommended for secure access to communal sites, however, this needs to be well managed to remain effective.**



# Appendix A: Cambridge City Council cycle parking standards

The following tables are extracted from the Cambridge City Council Cycle Parking Standards in appendix D of the Cambridge Local Plan 2006.

**Table 1: Residential Use.**

Type of Development	Number of Spaces
Residential dwellings	<ul style="list-style-type: none"> <li>■ 1 space per bedroom up to 3 bedroom dwellings</li> <li>■ then 3 spaces for 4 bedroom dwellings, 4 spaces for 5 bedroom dwellings etc</li> <li>■ some level of visitor cycle parking, in particular for large housing developments</li> </ul>
Guest houses and hotels	1 space for every 2 members of staff and 2 spaces for every 10 bedrooms
Nursing homes	1 visitor space for every 10 residents and 1 space for every 2 members of staff
Retirement homes/sheltered houses	1 space for every 6 residents and 1 space for every 2 members of staff
Student residential accommodation	<ul style="list-style-type: none"> <li>■ 1 space per 2 bed spaces within Historic Core Area</li> <li>■ 2 spaces per 3 bed spaces for the rest of the city</li> <li>■ 1 visitor space per 5 bed spaces</li> </ul>
Residential schools, college or training centre	(as above)
Hospitals	On merit

**Table 2: Retail, Culture, Leisure and Sports Uses.**

Type of Development	Number of Spaces
Food retail	1 space per 25 m <sup>2</sup> GFA <sup>1</sup> up to 1500m <sup>2</sup> thereafter 1 per 75m <sup>2</sup>
Non-food retail	1 space per 25 m <sup>2</sup> GFA up to 1500m <sup>2</sup> thereafter 1 per 75m <sup>2</sup>
Financial and professional services	1 space per 30m <sup>2</sup> GFA to include some visitor parking
Food and drinks	1 space for every 10 m <sup>2</sup> of dining area
Museums, Exhibition venues	1 space for every 2 members of staff Visitors: on merit
Sports and recreational facilities and swimming baths	1 space for every 25 m <sup>2</sup> net floor area or 1 space for every 10m <sup>2</sup> of pool area and 1 for every 15 seats provided for spectators
Places of assembly including cinema, theatre, stadia, auditoria and concert halls	1 space for every 3 seats
Place of worship, public halls and community centres	1 space per 15 m <sup>2</sup> of public floor area

**Table 3: Office Uses.**

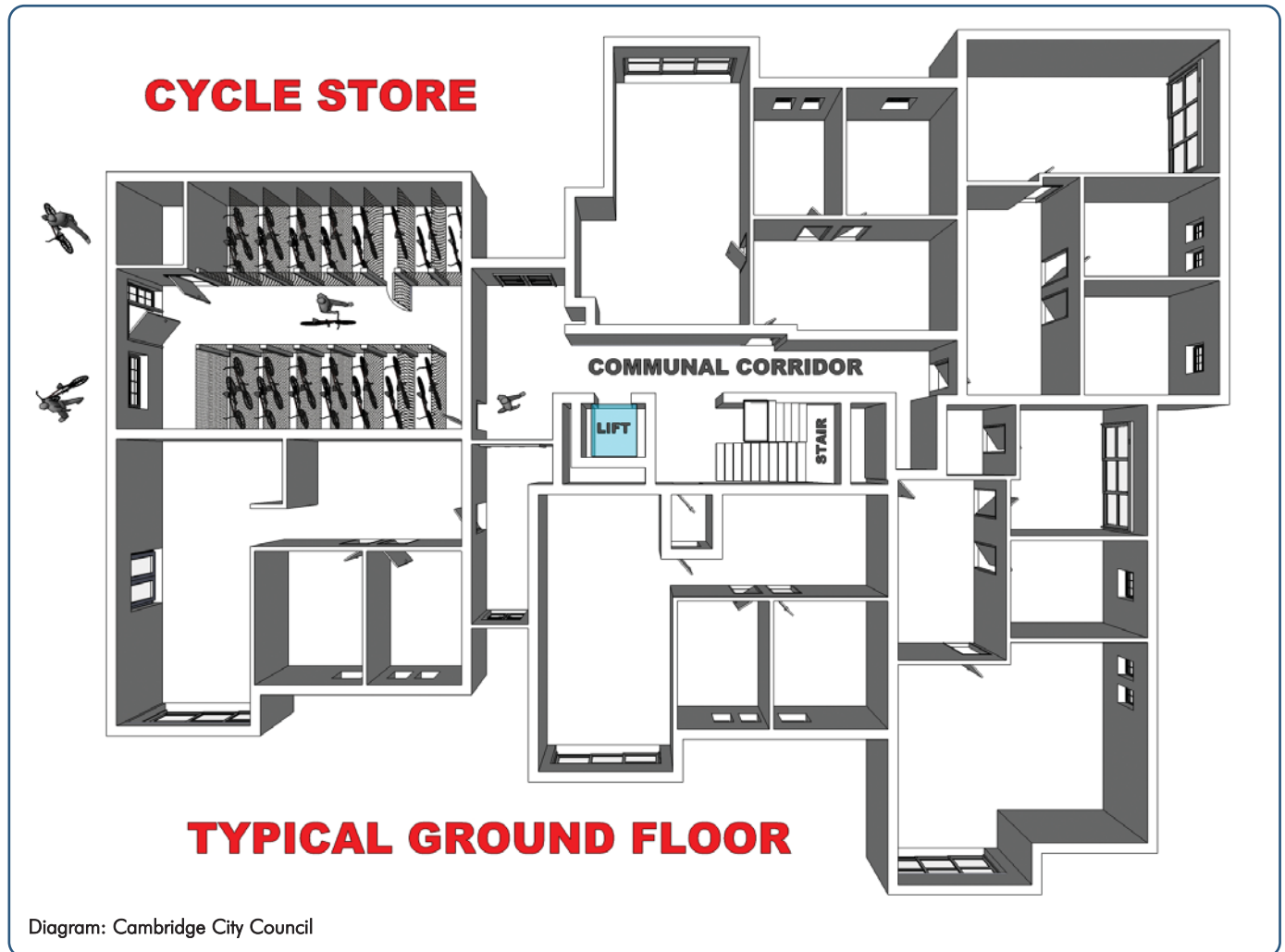
Type of Development	Number of Spaces
Offices	1 space for every 30 m <sup>2</sup> GFA, to include some visitor parking
General industry	1 space for every 40 m <sup>2</sup> GFA, to include some visitor parking
Storage and other B use classes	On merit

<sup>1</sup> Gross Floor Area

**Table 4: Non-Residential Institutions.**

Type of Development	Number of Spaces
Clinics and surgeries	2 spaces per consulting room and 1 space for every 3 professional members of staff
Non-residential schools	Cycle spaces to be provided for 50% of children between 5 and 12 and 75% of children over 12 years
Non-residential higher and further education	Cycle parking for all students using the site and 1 for every 2 members of staff
Crèches and Nurseries	1 space for every 2 members of staff 1 visitor space per 5 children

# Appendix B: An example of internal ground floor cycle parking



Internal cycle parking with dedicated cycle parking cages for each flat.  
(Drawing based on design by CHBC architects on behalf of Hill Residential).



# Appendix C: A guide to cycle parking equipment

## Recommended cycle stands



### 1. Sheffield stand

Parks two cycles to one stand, cost effective to buy and install and easy to maintain. Allows front and rear wheels and frame to be locked. Allows use from either end (where symmetrical design and layout permits).



### 2. 'A' frame

The addition of a horizontal bar will make it easier to secure children's cycles and reduce the likelihood of cycles slipping down the stand if properly locked.

This can also be applied to Sheffield stands as above.



### 3. 'CaMden' stand

Designed to encourage locking of wheels and frame.

Note: this should not be confused with the 'ribbon' or 'wave' stand (see later).

## Specialist applications – Site-specific approval required



### 1. Wall bars or rings

Recommended mounting height 500-550mm.

Useful for visitor parking at individual houses.

### 2. Two-tier systems

Can add capacity but only to be considered for larger, constrained sites such as for student accommodation.

Not universally liked by users – should be seen as part-solution only.





### 3. Lockers general (horizontal)

Horizontal lockers only are acceptable. Vertical ones require lifting and some do not accept larger cycles so are not acceptable.



### 4. High-low stands (high capacity)

Not recommended for general use in new build but may be acceptable where high levels of cycle parking are needed (student accommodation) and for retro-fit in constrained sites. Only acceptable where central posts allow the frame of the bicycle to be locked to the rack.

## Compounds and shelters

The design of shelters and compounds should enhance the area in which they are located. It is important that shelters offer good protection from the elements and be well lit. Many pre-made shelters are available but bespoke shelters made from materials that complement surrounding buildings may be more suitable. Shelters should be cleaned and maintained regularly as part of site management.



### 1. Secure compounds



**2. Open shelters**



**4. Wooden bespoke shelter**



### 3. Artist

Open shelter with commissioned artwork.

**Source:** Alison Turnbull, Time and Tide (sited at Gallions Reach Station), 2009. Commissioned by Docklands Light Railway. Image courtesy of the artist and Matt's Gallery, London.



### 5. Cages

Useful in smaller blocks of flats.

## Ineffective cycle parking

The following are not acceptable because of general inadequacies including lack of security, support and the need to lift cycles.







13.



16.



14.



17.

Above: No lifting mechanism.



15.





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- Alex Sully

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The Cambridge Cycle Campaign have produced the 'Cambridge Cycle Parking Guide' which can be found from the following URL:  
<http://www.camcycle.org.uk/resources/cycleparking/guide>