Cycle Parking – what the guidance says

Document	Author	Date	What it says
Cycle Parking	National Cycling Strategy website	Current	To provide sufficient security for cyclists to trust a cycle rack, it must be possible to lock the bicycle by both frame and wheels. 'Butterfly' stands, concrete blocks with slots and other types of racks that grip the bicycle by its wheel do not provide this level of security, and can also damage the wheel rims. The simplest rack that meets these criteria is the 'Sheffield 'stand -an inverted 'U' of steel tube with the ends fixed into the ground.
Cycle Parking	CTC website	Current	i. Short stay cycle parking should be based on the Sheffield stand design. Cycle lockers and more complex systems should be available at destinations where long stay parking is required ii. Cycle parking should be located close to any entrance to required facilities. Where parking in public places is provided, such as in shopping centres and public transport interchanges it is preferable to maximise visibility to passers-by and CCTV. iii. All cycle parking facilities should have adequate lighting and if long-stay, protection from the weather.
FF37 Cycle Parking	Sustrans, CTC	2004	Ideally the location should be one that is constantly under surveillance by the general public (and CCTV if possible) and is well lit. This reduces the opportunity for vandalism/theft and inspires confidence to cycle to that destination. Bike parking should not be hidden away behind buildings or tucked away in the corner of a car park as this removes any convenience over driving a car and allows thieves to work out of view. …The most simple and reliable design (and therefore most common) is the 'Sheffield' type stand Other stands, such as 'butterfly' racks, which only attach to the wheels, should not be used as they are less secure, do not support the bike and can damage it.
Quality Cycle Parking standard	Bike Parking and Security Association	2003	…cycle stands which only permit one or both wheels of the cycle to be locked to the cycle stand do not meet the requirements of this Specification.
Cycle Friendly Infrastructure	Department of Transport Institution of Highways and Transportation CTC Bicycle Association	1996	19.3.2 To promote security a cycle parking facility should make it possible for the frame, and if possible, both wheels to be locked to the fixture. Stands which support a cycle only by supporting one or both wheels are unsatisfactory; they are insecure and can result in damage to the bicycle. It is desireble that the parking area should be overlooked by occupiers of a building nearby or be in clear view of passers by. Properly lit facilities will also enhance personal and bicycle security.
Traffic Advisory Leaflet 5/02 – Key Elements of Cycle Parking Provision	Department for Transport	2002	The Sheffield Stand has become almost universally specified by groups lobbying for cycle parking. It has the virtues of simplicity and value for money. Its generic nature allows for great variation. The Sheffield Stand is a very basic form of parking which is ideal for shorty term parking, though it is not always the best option for long term and high density parking.

NATIONAL CYCLING STRATEGY

PARKING AND SECURITY

An important objective of the National Cycling Strategy is for cycle parking to be available at all major destinations- see Chapter 8 of the NCS for a more detailed discussion of this objective.

The fear of theft is one of the biggest deterrents to growth in cycling and as such is one of the key issues being addressed by the NCS. For employers, improving the quality of cycle parking is the most immediate step they can take to encourage cyclists, and the one most likely to yield quick wins. The 1993 AA "Cycling Motorists" study found that 86% of those surveyed would be encouraged to cycle if secure parking was provided. This is supported by the results of the 1996 Cycle Challenge project for cycle parking at rail stations in Hampshire, with a 500% increase in the number of bikes parked at one improved site.

Providing good quality cycle parking can greatly enhance the attractiveness of your work site and help increase cycle use. Cycle parking is vastly cheaper than car park provision and money spent instead on cycle parking can realise considerable savings; especially when one car parking space can provide sufficient space for 12 bicycles.

Basic Security Rules for Cycle Users

- Do not leave cycles in isolated places
- Park safely and considerately where your bike will not cause a danger or obstruction to others – particularly to older people, young children, or people with disabilities
- Always lock a cycle when leaving it, even if it's only for a few minutes
- Secure bikes to proper stands or robust street furniture
- Lock cycles through the frame
- Secure or remove wheels
- Remove smaller parts and accessories that can't be secured, especially lights, pumps and quick release saddles

Remember that more than half of cycle theft happens at the owner's home

What type of cycle parking facilities should you provide?

Cycle parking can range from individual stands for one or two bicycles next to doorways to large, covered (or indoor) cycle stores with swipe card access. The type of cycle parking most appropriate for your site will depend on a number of factors, including the number of cyclists in each building, distance between buildings, the number and location of entrances, availability of space and the level of cycle theft in the neighbourhood. The main possibilities, and their respective merits, are discussed below.

NB: To provide sufficient security for cyclists to trust a cycle rack, it must be possible to lock the bicycle by both frame and wheels. 'Butterfly' stands, concrete blocks with slots and other types of racks that grip the bicycle by its wheel do not provide this level of security, and can also damage the wheel rims. The simplest rack that meets these criteria is the 'Sheffield 'stand -an inverted 'U' of steel tube with the ends fixed into the ground.

1. Free standing cycle stands

The "Sheffield" type stand, can support two bicycles; and, especially when fixed by bolts, can be fitted into available spaces without too much difficulty. By placing these stands individually, or in small groups, it is usually possible to find suitable spaces near building entrances.

As this sort of cycle stand can most easily be located next to entrances; this is usually the most appropriate for visitors and other short-stay parking. Such stands can also be used to provide extra capacity for summer cyclists, because shelter is less important for those who only cycle in good weather.

Advantages: **flexibility, cheapness**
Disadvantages: **lack of shelter (unless placed under cover); less secure than fully enclosed and lockable stores.**

2. Purpose built cycle sheds and shelters

A purpose built "bike shed" or shelter can typically hold up to 12

Cycle Parking

Carefully planned provision of secure parking facilities can encourage people to cycle more; contributes to an attractive ordering of public space; and improves the image and public profile of cycling.

CTC View

i. Short stay cycle parking should be based on the Sheffield stand design. Cycle lockers and more complex systems should be available at destinations where long stay parking is required

ii. Cycle parking should be located close to any entrance to required facilities. Where parking in public places is provided, such as in shopping centres and public transport interchanges it is preferable to maximise visibility to passers-by and CCTV.

i. All cycle parking facilities should have adequate lighting and if long-stay, protection from the weather.

ii. The amount of good quality cycle parking in developments should be increased and cycle parking should be included in all new developments.

Sources for further information

Cycle Parking Information Sheet, Sustrans & CTC 2004

Cycle Friendly Infrastructure, CTC 1996

Cycle Parking Supply and Demand TRL Report 276, 1997

Bike and Ride, (DETR) TAL 3/96

Cycle Parking Examples of Good practice, (DETR) TAL 6/99

PPG 13, Transport, DTLR

For a copy of Sustrans' and CTC's latest leaflet on **Cycle Parking,** covering location, design & installation, quantity, costs and suppliers, Click Here

Cycle parking

Sustrans routes for people

The UK's national cycling organiation ctc working for cycling

The provision of secure, well located cycle parking is essential if people are to be encouraged to use a bicycle as a means of transport. By indicating to the public that cyclists are welcome, cycle parking facilities act as a message to motorists to consider cycling in the future. Cycle parking should be prominent on the ground and clearly advertised in any promotional material.

In order for cycle parking to be useful, a few important factors must be taken into account when choosing the design and location. This information sheet aims to avoid expensive mistakes and offer guidance on the best solutions.

The main points to consider when planning cycle parking:

- **location**
- **design and installation**
- **how much parking is needed**
- **cost/funding**

Cycle parking within carriageway King Street, Bristol

© Derek Palmer

Custom-made stands, St Albans

All illustrations and examples are for guidance only and information is correct at time of publication. Sustrans does not recommend the use of any particular product or supplier.

1. Location

The siting of the cycle storage/parking is absolutely critical to its success. It must be located as close as possible to the main entrance of a destination (school, office building and shopping centre) or it will not be used. It must offer a real advantage over the location of the nearest car parking space. Ideally the location should be one that is constantly under surveillance by the general public (and CCTV if possible) and is well lit. This reduces the opportunity for vandalism/theft and inspires confidence to cycle to that destination. Bike parking should not be hidden away behind buildings or tucked away in the corner of a car park as this removes any convenience over driving a car and allows thieves to work out of view.
(See 'Siting Details' below).

2. Design and Installation

This is a key consideration for cyclists; even those leaving their bikes for a very short time. The design of the stand therefore has to ensure peace of mind. The device must be easy to access, facilitate the use of 'D' type locks and conventional chains/cables, provide support for the whole bicycle and allow both frame and wheels to be secured in a way that suits the individual user.

The most simple and reliable design (and therefore most common) is the 'Sheffield' type stand constructed from a single tube with two right-angle bends. This design when situated properly is the most popular, because it fulfils all the above requirements. This design can be improved by the addition of a lower crossbar, which makes it more suitable for 'step through' frame cycles and children's

Fence/hitching ring, Queen Square, Bristol

Cycle Centre, County Hall, Nottinghamshire

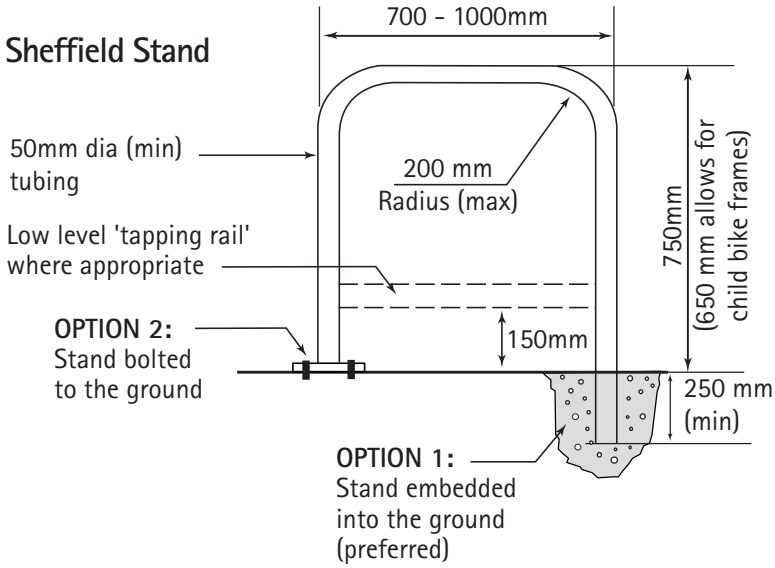
Cycling Centre of Excellence, London

cycles, and reduces the tendency for the front wheel to turn. There are successful examples of 600mm wide versions, which include a crossbar. For locations/attractions with a significant proportion of children, stands with a lower or slanting crossbar should also be considered. (See also Information sheet FS19; Cycle Parking for Schools).

Other stands, such as 'butterfly' racks, which only attach to the wheels, should not be used as they are less secure, do not support the bike and can damage it, and cause a trip hazard to pedestrians. However, there are good examples of other designs of "high capacity" cycle parking, which give adequate support and secure locking for the cycle.

In some situations a more aesthetic design may be appropriate and could be considered based on the same standards and requirements. Parking stands can be painted, supplied with a scratch resistant coating, or be stainless steel. This will maintain a quality finish within the urban landscape and prevent unnecessary damage to cycles. In visually sensitive locations, other options, such as hitching rings fixed to fences where handlebars can be accommodated, are a good compromise (see photo above).

Organisations which are providing cycle parking for employees and visitors should consider the provision of covered areas, either within the building itself or a shelter located very close to the main pedestrian entrance. This will further encourage people to cycle, safe in the knowledge that their bicycle will be kept dry for the journey home.



Where cycles are left for a number of hours, for example by workers, students, commuters or in residential developments, more secure parking may be needed. Increased security can be provided by means of lockers, or where shelters or sheds have lockable doors.

Along with the established and traditional forms of cycle storage, there are a number of more advanced solutions in development, slowly coming to fruition. These designs address the problem of the petty theft of cycle parts and the growing problem of the more organised and sophisticated cycle thief. They allow those responsible for the design of urban and transport environments the opportunity to specify a more considered and integrated cycle parking concept.

There is a wide variety of designs for secure cycle parking, based on both standard units and bespoke ones. Some examples of good designs are:

- a free-standing two-storey modular unit incorporating secure cycle parking for 32 bikes with changing/shower facilities (e.g Milton Keynes).
- a secure cycle parking compound for staff in the basement of their offices, accessed and monitored using the staff swipe card system (e.g Nottinghamshire, see photo above).
- a secure covered cycle parking compound for school pupils using a combination lock with a code that is changed regularly (e.g. Surrey).
- cycle parking for staff that also serves as a demonstration of efficient use of a confined space using a range of cycle parking designs (e.g. Transport for London, see photo above).

3. How much parking is needed

The ideal way of determining the demand for storage is to survey all existing and potential users within an organisation/school etc. However, this would be difficult in a general use situation, like a shopping street, where it may be wiser to look at the potential for different destinations to attract people by bike. This can be combined with observations of places where cycles currently get locked to street furniture or where there would be a very high demand (e.g. bus and train stations).

Most Local Authorities have 'Parking Standards' that specify the minimum amount of cycle parking/storage to be provided at new developments. This could also be applied to existing locations as a rough guideline. However the demand for spaces should hopefully grow after the initial implementation of cycle storage. It is often more useful and convenient to have plenty of small parking areas than one large one, and, on shopping streets, consideration should be given to installing individual stands parallel to the kerb (see photo below).

Parking stand parallel to the kerb, Bristol

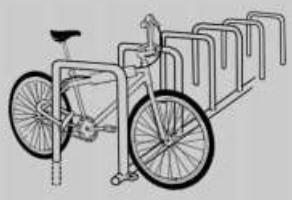
Parking stands with footway detail, Queen Square, Bristol

Siting details

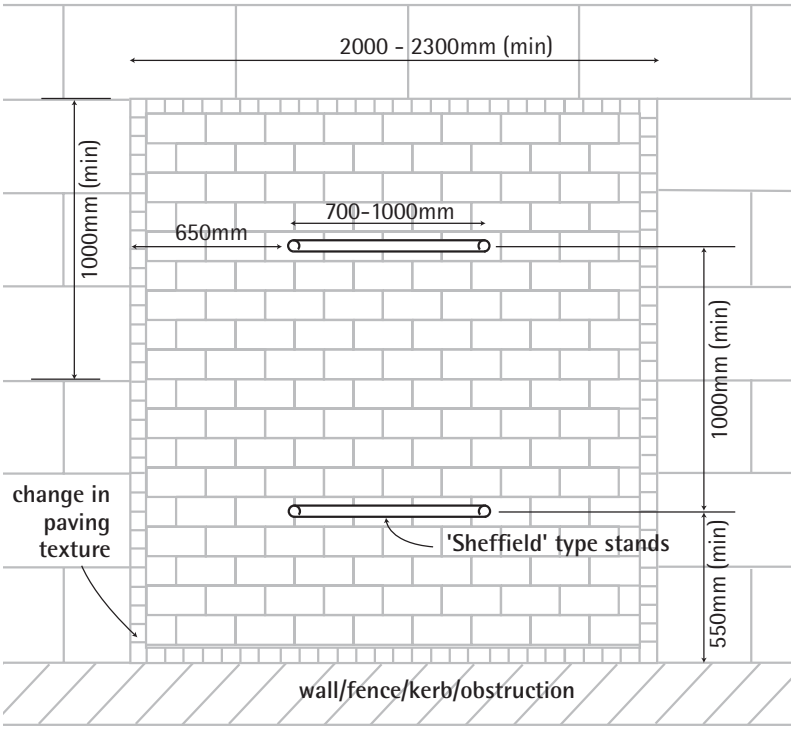
Once all the above factors have been considered, the following details must be addressed:

- Care should be taken to ensure that the cycle parking (when in use) does not cause an obstruction to pedestrian flow. Calculate the actual floor space required (see footprint diagram), an allowance of 1 cycle/1 sq. metre provides a good guide. Make sure that this does not obstruct pedestrian desire lines. If it does then relocate, possibly to the carriageway within a bay protected by bollards or kerb extensions (see photo on front page).
- Ensure that the area planned for parking is horizontal. If not, stands should be orientated at right angles to slope to prevent bikes from rolling away.

- If the planned parking is to be incorporated into a new streetscape or highway scheme then thought should be given to highlighting the presence of the 'parking area footprint' with a change in surface colour or texture. This emphasises the area to both potential users and visually impaired pedestrians (see photo at bottom left).
- If it is deemed inappropriate or impractical to excavate for a number of individual cycle stands then a joined "toast-rack" arrangement can be used. (see photo on front page)



Cycle parking stand 'footprint' (plan view)



Burnholm School locked cycle shed

4. Costs / funding

The cost of cycle storage varies between products, design and site conditions.

- A basic stand to accommodate two cycles will cost around £100 to supply and install.
- A quality cycle locker costs around £500 per cycle, installed.
- A shelter for 20 cycles can range from £1,000-£5,000 upwards.

Whilst these devices may appear expensive initially, this cost should be compared to that of providing and maintaining a car parking space (approx. £2,500 to install and £250 to maintain per annum in some instances) or the cost to an employer for the purchase of car-parking permits for the same number of people.

If custom-made parking stands (based on these guidelines) are considered to augment an urban design theme or reflect the character of a place or organisation, the cost could be funded through sponsorship by local commercial bodies or included in the cost of a larger highways/development scheme. (see photo opposite)

© Cycle Works Ltd

Nottingham Hospital cycle lockers

Custom made cycle stands funded through development, Lambeth

Useful publications

Available by mail order from Sustrans:

1. **The National Cycle Network – Guidelines and Practical Details II** *Sustrans 1997.*
2. **Making Ways for the Bicycle** *Sustrans 1994.*
3. **Cycle Friendly Infra-structure** *IHT / CTC / Bicycle Association / DETR 1996.*
4. **Cycle Parking for Schools FS19** *Sustrans 2001.*
5. **London Cycling Campaign www.lcc.org.uk** *cycle facilities page.*

Available free from DfT: tel. 020 7944 2979 www.dft.gov.uk

6. **Supply and Demand for Cycle Parking –** *Traffic Advisory Leaflet 7/97 DETR.*
7. **Key Elements of Cycle Parking –** *Traffic Advisory Leaflet 5/02 DfT.*
8. **Cycle Parking – examples of good practice** *Traffic Advisory Leaflet 6/99 DETR.*
9. **Cycle Parking at Rail Stations** *11/99 Traffic Advisory Leaflet 11/99 DETR.*

Suppliers

For a list of approved suppliers contact
BPSA (Bicycle Parking & Security Association)
3 Pottery Street, London SE16 4PH

020 72523696
bpsa@pro-net.co.uk

Sustrans

For further copies of this or other factsheets please call
Sustrans INFORMATION LINE
0845 1130065
Monday – Friday 9am – 5pm
visit
www.sustrans.org.uk

National Cycle Network Centre ,
2 Cathedral Square, College Green
Bristol BS1 5DD
Tel: 0117 926 8893 Fax: 0117 929 4173
Charity no. 326550

or

CTC INFORMATION LINE
0870 873 0060
visit
www.ctc.org.uk

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Security

To meet the requirements of this Specification, cycle stand designs must permit cycles to be locked in accordance with the Specification details below, and offer an acceptable level of resistance to theft and vandal attack.

The requirements which must be met for any cycle stand to receive BPSA approval are as follows:

1: The cycle stand must permit the cycle frame to be easily and securely locked to a secure part of the cycle stand: cycle stands which only permit one or both wheels of the cycle to be locked to the cycle stand do not meet the requirements of this Specification. It is also desirable, in addition to permitting locking of the cycle frame, for the cycle stand to permit one or both wheels of the bicycle to be easily and securely locked to a secure part of the cycle stand. In the case of proprietary cycle stand designs with integral locking, then this integral lock must meet the same requirements. In all cases, it should possible for users to easily perform the locking actions required, either using standard D-locks or locks which use a chain or security cable, or using the proprietary integral lock.

2: The structure of the cycle stand, including any part of cycle stand which is used for locking the bicycle, must withstand cutting by a 300mm, 24tpi hacksaw, at a rate of 1 cycle per second, for a minimum of 120 seconds.

3: All cycle stands must be able to withstand general vandalism including kicking, without failure of the structure of the cycle stand.

4: Any exposed fasteners or fixings shall be tamper resistant such that they cannot be manipulated using simple hand tools.

Service life

To meet the requirements of this Specification, cycle stand designs must have a minimum service life of 10 years.

The requirements which must be met for any cycle stand to receive BPSA approval are as follows:

1: The completed cycle stand installation, including all materials, finishes, and fixings must have a minimum service life of 10 years when maintained in accordance with the manufacturer's instructions.

19.3 Cyclists' requirements from parking facilities

19.3.1 Parking facilities should be conveniently located, secure, easy to use, adequately lit and well signed, and, if possible, sheltered. This is particularly important for long term parking. Convenience is particularly important for short-term parking.

19.3.2 To promote security a cycle parking facility should make it possible for the frame and, if possible, both wheels to be locked to the fixture. Stands which support a cycle only by supporting one or both wheels are unsatisfactory; they are insecure and can result in damage to the bicycle. It is very desirable that the parking area should be overlooked by occupiers of a building nearby or be in clear view of passers by. Properly lit facilities will also enhance personal and bicycle security.

19.4 Location and installation

19.4.1 Cycle stands should be situated close to the destinations they serve, preferably in locations where motor vehicle access is restricted. This deters theft using vans etc. Stands hidden away in a dark recess, or at the back of car parks, will not be attractive to users. It is important to try to site stands as close as possible to building entrances, to enhance convenience and security for users. There is also the symbolic importance of making cycle parking more prominent and convenient than car parking. Such decisions give a clear message that the role of the bicycle is being taken seriously.

19.4.2 Cycle stands should be placed carefully in relation to their surroundings. It is often better to have several small groups of stands than one big group, depending on the space available. Appearance is greatly helped by incorporating cycle stands into wider environmental improvement or repaving schemes, if such an opportunity presents itself. Care should be taken to ensure that stands do not obstruct pedestrians, especially people with disabilities, or incorporate dangerous projections.

19.5 Cycle parking standards

19.5.1 Local authorities should stipulate suitable facilities for cycle parking in giving planning permission for new developments and redevelopments, in line with the recommendations of PPG13 (DoE/DOT 1994).
Paragraph 4.17 states that:

"Authorities should encourage the provision of secure cycle parking at public transport interchanges, including railway stations and park and ride facilities, to increase the opportunities to use cycles in combination with public transport and car sharing. Provision of secure cycle parking facilities should be sought in all major developments and in town centres, and at educational institutions."

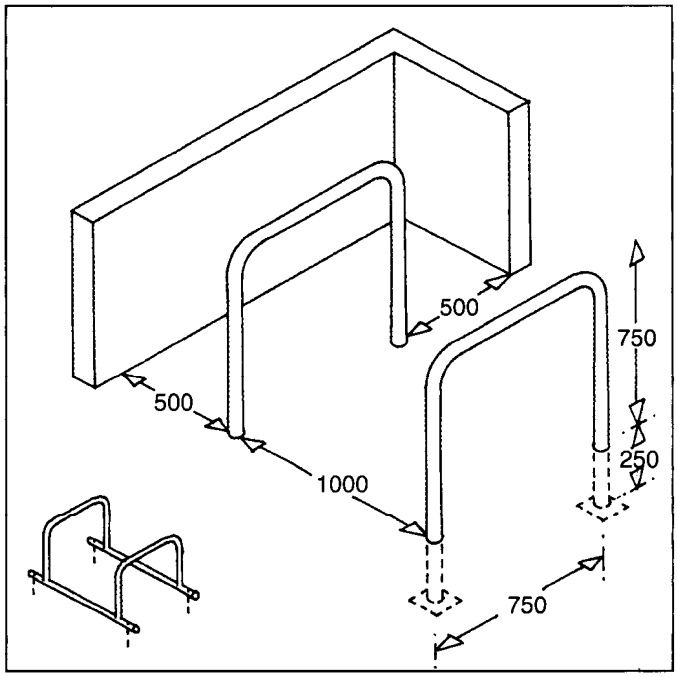
Existing businesses should also be encouraged to provide cycle parking facilities.

19.5.2 Oxford and Bristol have produced detailed standards relating cycle parking provision to floor space. Milton Keynes has integrated cycle parking in general parking standards. In York, the developer is required to make a commuted payment to the local authority if full provision cannot be made on site. Examples of cycle parking standards are available in a Technical Note produced by the CTC.

19.6 Short and medium term parking

19.6.1 Requirements and recommended designs
Short term cycle parking facilities are for visits of around 30 minutes or less at locations such as libraries and shopping centres. Priorities are security, ease of use, and accessibility. Sheffield stands and wall loops are recommended, preferably

situated in frequent small groups as near to the destination served as is practical. These should be clearly signed and well lit.



Sheffield stand –inset "toast rack" type.

19.6.2 The Sheffield stand enables the cyclist to secure both frame and wheels to the standwithout risking damage to the bicycle, and provides good support for the machine. The stands should be 750mm high and a minimum of 700mm long. A minimum distance of 1000mm should be left between stands to accommodate twobicycles per stand. Stand ends should be embedded in concrete or welded to parallel bars at ground level creating a "toast-rack" formation. Adequate space should be left at both ends of the stand, where possible, to get cycles in and out easily. If a change of level is involved, a short ramp rather than steps should be provided. This needs to be steep enough to deter abuse by drivers, whilst being gentle enough to make it easy to push a bicycle up or down it. Detailed guidance on Sheffield stands, installation standards and suppliers has been produced by the London Cycling Campaign (1995).

19.6.3 Wall loops (or locking rings) are simple, cheap and may be easier to fit in where there is a substantial length of wall and limited pavement or other space for Sheffield stands. Small but convenient and useful parking areas can thus be provided. Moreover, they are virtually maintenance free. They must be securely fixed to masonry. Their disadvantage is that to secure the wheels of the bicycle as well as the frame requires an extremely long chain, thus only limited security is offered. The loops should be 750mm from the ground, project no more than 50mm from the wall, and be a minimum of 1800mm apart. Signing is useful to show that cycle parking is welcome.

19.6.4 The use of "butterfly" or single wheel holders is not advised, nor is the provision of concrete slots. These designs provide little security and can lead to damage to the bicycle.

Devices and systems

Sheffield Stand

The Sheffield Stand (an upturned U), has become almost universally specified by groups lobbying for cycle parking. It has the virtues of simplicity and value for money, and its generic nature allows for great variation. The Sheffield Stand is a very basic form of parking which is ideal for short term parking for all types of cycle, though it is not always the best option for long term and high density parking. It is generally a tubular metal unit secured to the ground in a visible location.

There are a variety of designs, but generally the stand creates a horizontal bar 750-800mm above the ground, with two vertical supports (the height may be reduced where children are the main users). In its simplest form, it is a U shaped tube, ideally between 37mm and 80mm in diameter. The larger tube sizes tend to be more secure, as there is less space to lever apart the widely used D shackle lock.

There is a great need for clear specification, since every location will have certain requirements, such as tapping rails, advertising boards, or colours which either allow the stand to blend into the background or do the opposite, depending on siting.

- Avoid stand heights of over 800mm, as they do not support smaller bikes.
- A lower crossbar/panel can provide support for children's bikes, and accommodate the habit of some regular users of leaving their locks on the cycle stands
- The stands should be 900-1200mm long to support the bike at or near axle centres. Without sufficient length, the lack of support allows the bike front wheel to lie to the side, making the parking less compact and increasing the risk of the bikes falling down forming a trip hazard.
- "Toastracks" are easy and cheap to fix to flat, hard surfaces such as pavements and platforms by means of a few fixing bolts, without the need to excavate holes. They can be easily relocated if necessary.
- Suitable space should be provided between stands to allow the cyclist to get alongside the bike to lock it.
- The use of raised setts or tactile paving to replace surfaces locally around an installation gives a warning of footway obstruction, and may eliminate the need for a protective barrier.

Most installers think in terms of a 20 year life for units, possibly with a mid-term repaint. Thus finish and weathering are significant factors in initial selection. The coating of stands in a material which will not chip the paint off cycles is also worth considering. An alternative in maximising the life of a stand is for it to be made of polished stainless steel.

Whole life considerations should also include the removal of dumped bikes, and the clearance of debris, which will normally be achieved as an extension of normal street cleaning activity, but which may require special consideration.

When deciding on the location of cycle parking, it is important to remember how far the bike will extend beyond the stand. By angling the stands, the obstacle width can be reduced to 700mm at most. Racks too close to walls will cause the wheels to stick out and interrupt pedestrian flow, as well as making the bike vulnerable to knocks and preventing secure locking. A useful design detail is to have all street furniture in a strip adjoining the carriageway, thus keeping pedestrian routes clear. In some locations cycle parking can be placed between phone boxes, providing convenient short term parking for phone box users, whilst also deflecting pedestrian flow around this prominent feature, with appropriate measures for visually impaired people. Other locations have used vertical information pillars to direct people around cycle parking. This also has the benefit of identifying the location of cycle parking above the heads of crowds, and parked cars.

Other designs of passive unit can provide equivalent degrees of support - a commissioned design for Cheltenham Council parks 6 bikes with just one post set in the ground.

Cycle parking, Sterling Bus Station

Cycle Parking – Photos

Stands at 800 mm centers (400 mm per bike) – bikes are difficult to get in and out, snagging one each other, and you cannot get in between them to lock or load without risking oiling your clothing on the neighbouring bike.

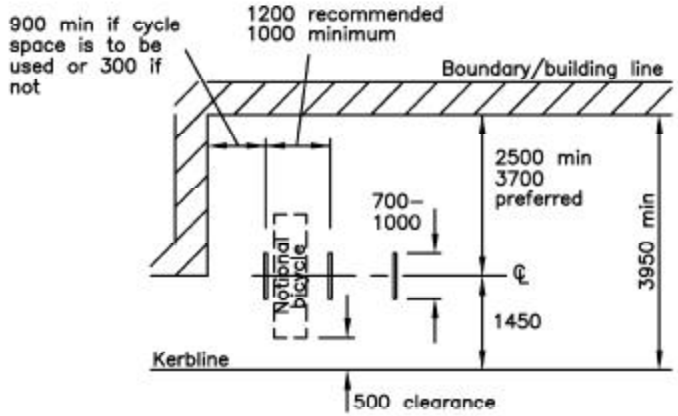
At 375 mm per bike (750 mm stand spacing) you can see clearly how bikes foul each other, making it difficult or even impossible to extract.

In car park design we take it for granted that you need lots of extra space to get in and out, to lock and load. Typically, a cycle is allocated less than its physical width (approx 700 mm), and in some cases less than half its physical width.

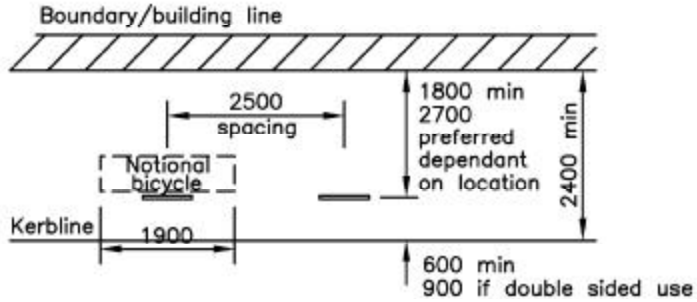
What a difference a few inches makes. These stands are at 900 mm centers. Still less than recommended (1000 mm centers), but compare with the picture at the top – far easier to lock up and load, without damage to bike or clothing. 100 mm makes a lot of difference.

Notes

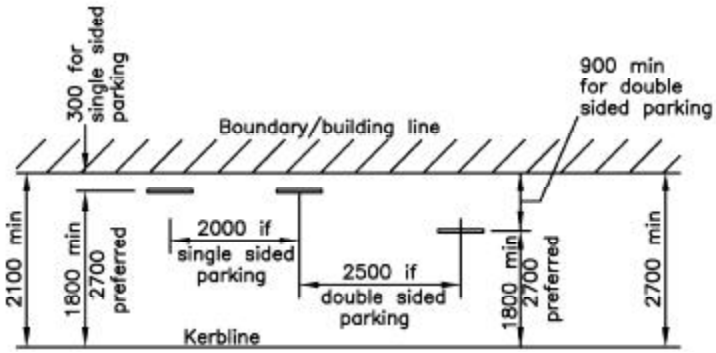
1. All dimensions in mm unless otherwise stated
2. Material to be stainless steel or galvanised with nylon coating



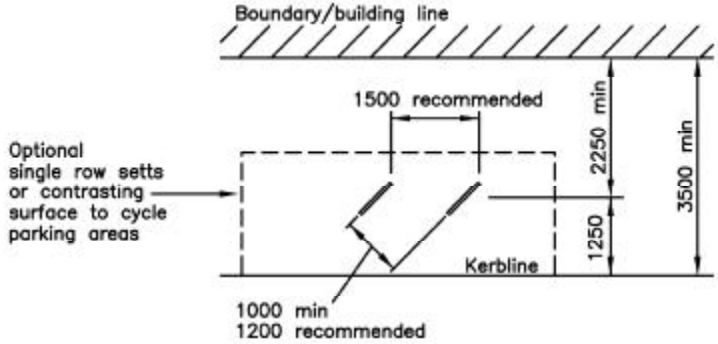
LAYOUT A – PERPENDICULAR



LAYOUT B – ALONG KERB



LAYOUT C – ALONG BUILDING LINE



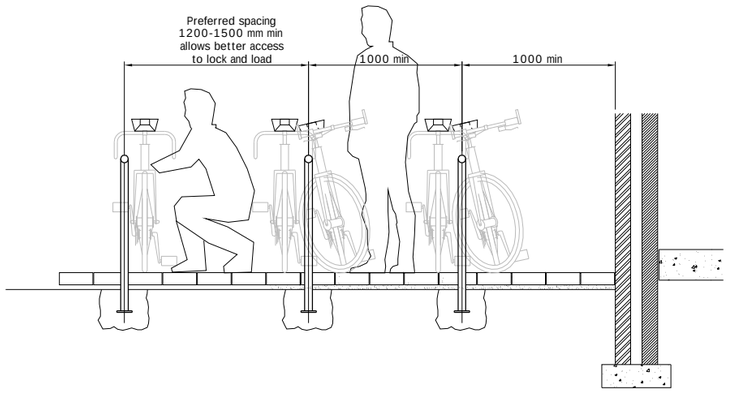
LAYOUT D – ECHELON (45°)

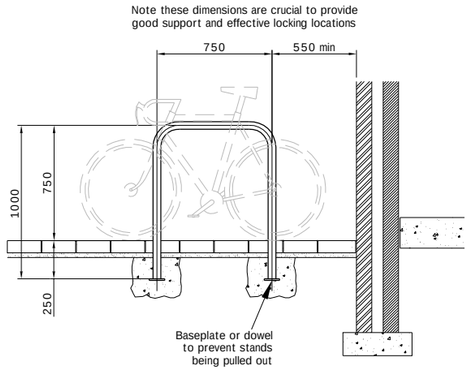
Transport for London

Cycling Centre of Excellence

Windsor House
42-50 Victoria Street
LONDON SW1H 0TL
Telephone 020 7343 5000

Date	Drawn	Checked	Approved	Title	Scale	Drawing no.	Rev.
JAN 2005	DSB	AGB	JL	CYCLE PARKING LAYOUTS	NTS	CCE/P2	

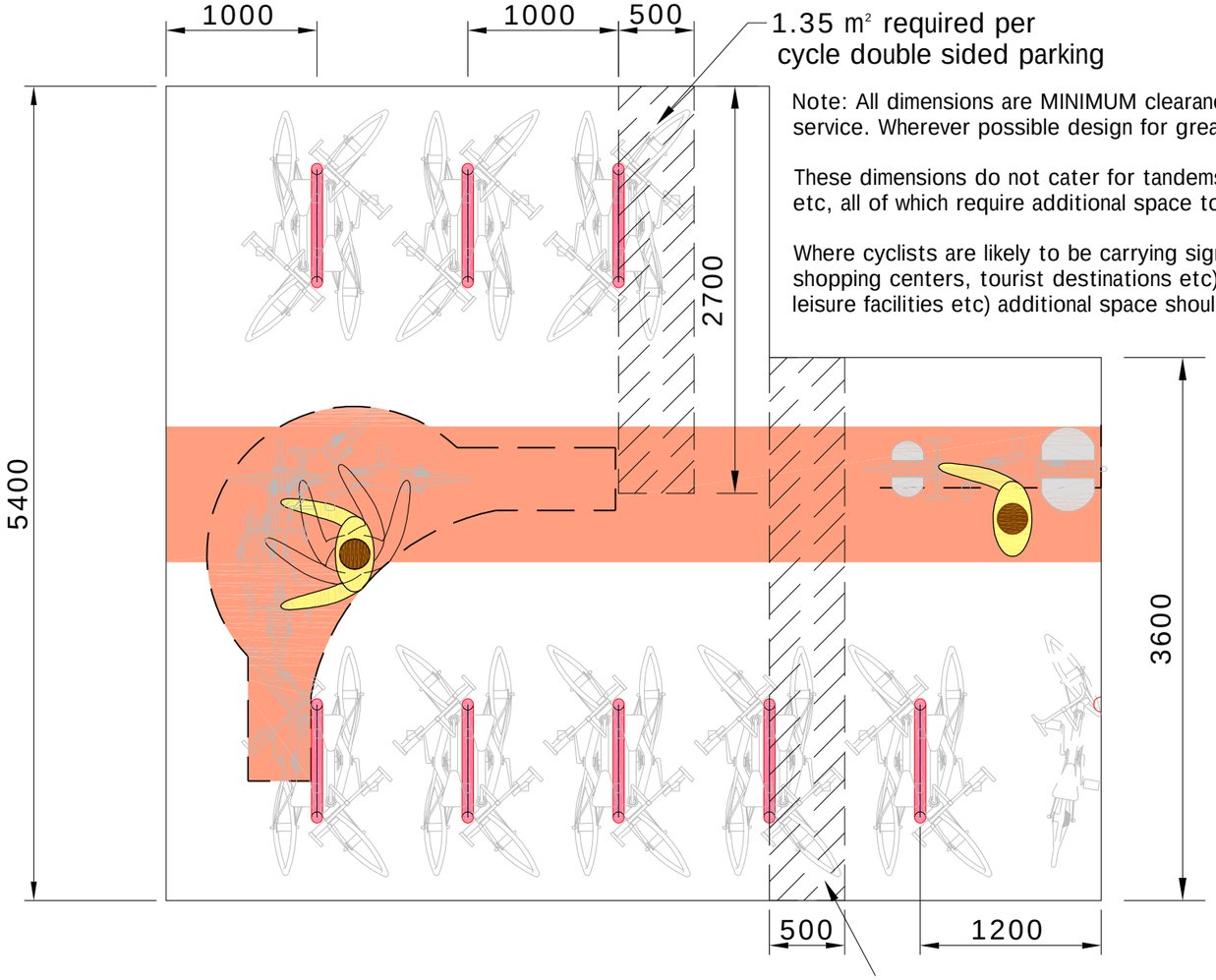




SHEFFIELD STAND DETAILS

1:20

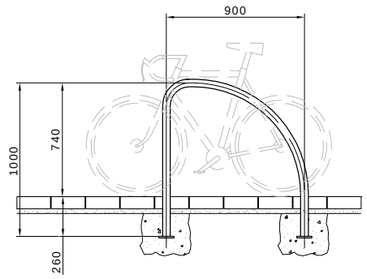
PARKING BAY DIMENSIONS		
	Car	Bicycle*
Bay Length	4.8 m	1.8 m
Bay Width	2.3 - 2.5 m	0.5 m min*
Aisle width	6.95 m	1.8 m one way
Whole bay	16.55 m	5.4 m
Plan area	20 m2 per car	1.35 m2 per cycle
*Note: One sheffield stand serves two cycle bays > Min stand spacing 1.0 m.		

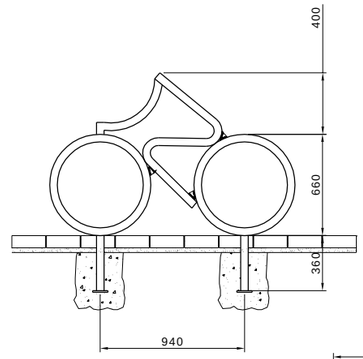


Note: All dimensions are MINIMUM clearances for an acceptable standard of service. Wherever possible design for greater clearance.

These dimensions do not cater for tandems, trikes, child trailers, trailer bikes etc, all of which require additional space to park and manoevre.

Where cyclists are likely to be carrying significant amounts of luggage (eg shopping centers, tourist destinations etc), or child seats (schools, shops, leisure facilities etc) additional space should be allowed.





BESPOKE STANDS

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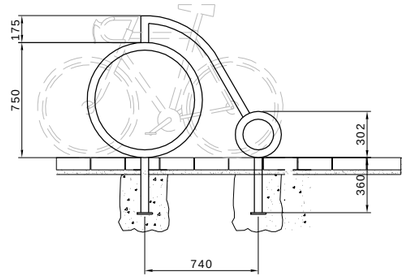

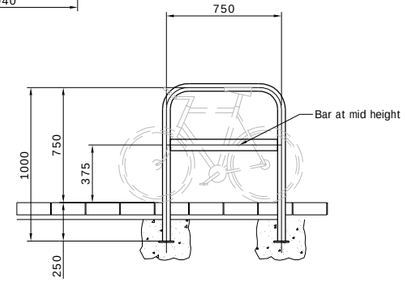

SHEFFIELD STAND ADAPTED FOR CHILDREN'S CYCLES

1:20

Notes for designers

Stand type.

Sheffield stands should be used unless there is a compelling reason otherwise. Be wary of proprietary stands which often perform poorly but cost considerably more.
Where children's bikes are expected a lower locking bar should be added.
Lockers are preferred where cycles are likely to be left outside overnight (residential) or at high risk locations such as railway stations.

Spacing

Stand spacing is critical to the success of a cycle parking scheme. 1.0 m is the minimum for an acceptable level of service. Reducing spacing below 1m to fit in additional stands reduces the capacity of the facility as it ceases to be practical to use both sides.
Allowance must be made for:

- Access to locking points, without having to come into contact with potentially oily parts of the bike or its neighbours.
- Parking / removal without snagging on neighbouring cycles.
- Extra width for loading / unloading of luggage and children in bike seats (especially at retail / residential / leisure destinations) - increase spacing to 1.5m +
- Longer / wider cycles such as tricyles, tandems and child trailers.

Manoeuvring space

Cycles need to be manoeuvred into their final parking space without undue difficulty. Ideally a clear zone of at least 2m should be provided although in tight locations this can be reduced.
Allowance must be made for:

- Encroachment by motor vehicles (bumper overhang, door opening, pavement parking etc).
- Longer, wider cycles, trailers and trailer bikes, less mobile riders (eg young or elderly riders who find manhandling their cycles in confined spaces difficult).

Access

The parking area should be freely accessible from the road or cycle path without needing to dismount. It should be free of:

- Barriers
- Steps in level (including bull nosed kerbs).
- Sharp corners
- Blind junctions / corners
- Obstruction by vehicles, including bumper overhang, opening doors etc.

Consideration should be given to the presence of pedestrians who are likely to use or cross the access path, whether or not it is designed for them to do so.
Target width should be at least 2.0 m, wider if flows are high, and at least 3.0m where pedestrians are to be expected. Absolute minimum width = 1.5m but this will rarely be appropriate for access to parking areas.

Location

Cycle Parking should be located close to the riders' final destination. For short stay (eg retail) the walk to destination should not exceed 20m, for long stay (residential, transport interchange) it should not exceed 50m.
Cycle parking should always be located such that it is well overlooked and well lit. Consideration should be given to the likelihood of theft, vandalism and antisocial behaviour. Also to the perceived sense of personal security of the users.
Cycle Parking should be located where it will best serve the users, not in redundant corners which are unsuitable for other uses.

Weather Protection

Weather protection should be provided wherever possible. Particular consideration should be given in long stay locations such as residences and workplaces.

CYCLE PARKING

working for cycling