

Chapter 9 - Signing, Parking and Other Details

Signing

The attractiveness of a National Cycle Network route to potential users will in part depend on the quality, coherence and frequency of signs.

Signing is covered in general terms by the Department of Transport guidance for road traffic signs. These signs are applicable to all road users. However, smaller direction signs are prescribed for use where the message is intended only for cyclists, as they are generally travelling more slowly than motorists, and therefore do not need to read the legend at so great a distance.

In order to identify the unique character of the National Cycle Network, all signs will contain the route number and red patch. This is in contrast to a blue patch for regional routes. Number patches may be added on to existing cycle route signs where there is room to do so, but it will usually be necessary to replace the sign.

As the number of cycle routes increases, routes will inevitably overlap and it may be necessary to rationalise signing.

Figure 9.1 has an example sign where a "branded" route (Avon Cycleway) overlaps with a National Cycle Network route and a regional cycle route.

In addition to currently prescribed signs, a set of signs and way markers shown in Figure 9.1 have been agreed with the Department of Transport for use on the National Cycle Network.. It is expected that these will be prescribed in the Amendment Regulations in Spring 1997.

Continuity of route information is important and route signs should be placed either side of key junctions and waymarkers provided at intervals appropriate to the route. Existing street furniture should be used wherever possible to locate signs. The objective is to ensure that the National Cycle Network routes can be followed easily, without a clutter of signs. Where appropriate National Cycle Network signs should include key destinations and distances.

At points of focus such as the main accesses to major off-road paths, the main entry points to urban areas and where a number of urban routes join, it is important to display local area cycle route maps. These can be sited in conjunction with cycle parking facilities. In certain locations it may be appropriate to erect tactile maps for blind and partially sighted users.

On off-highway routes the intention is that signing should be sympathetic to the surroundings and therefore a prescriptive approach has not been adopted. However signing should maintain the same standard of clarity and continuity, and must include the route number patches and their colour coding.

In Wales, bilingual versions of traffic signs should be used.

Cycle Parking

Cycle parking should provide security for bikes, convenience for the cyclist and an indication to the public that cyclists are welcomed. To this end, cycle parking should be provided in prominent sites close to entrances of public places and the like, rather than on left over plots at the rear. Parked cycles in highly visible locations will help to reinforce the public's perception that cycling is popular. Small groups of cycle parking stands are preferable to a single group at a central location.

Wherever possible the parking should be in view of the building's entrance such that it benefits from casual as well as formal surveillance.

Cyclists may choose to use conveniently sited street furniture such as railings and tree guards. This should not be seen as a substitute for the provision of cycle parking stands, and care should be taken to avoid obstructing footways.

For short and medium stay cycle parking in locations under easy surveillance the Sheffield stand or wall loops should be sufficient. There are situations where consideration should be given to more secure long stay cycle parking where surveillance is more of a problem. Cycle parking at railway and bus stations and at large leisure facilities where a cyclist may not wish to remove panniers may fall into this category, although for regular users "toast racks" of Sheffield stands are often more appropriate. Where greater security is required, consideration should be given to providing cycle lockers. These enclose the cycle completely and can be locked with the cyclist's own 'D' lock.

Access Barriers

There should be a presumption against the use of any access barriers on cycle tracks/footpaths because of the difficulties they can cause for users. It is acknowledged that there will be situations where access barriers in some form will be required, but it is important that the level of restriction provided by the access barrier be as low as possible commensurate with the problem to be tackled.

Figure 9.4 shows three levels of access barrier. Bollards provide the least difficulty for all cyclists and wheelchair users to negotiate while the access barrier with wheelchair bypass will force cyclists to -slow down and in many cases stop and will be particularly difficult for tandems, tricycles and cycles with trailers to negotiate. Where there is a perceived problem with motorcyclists, only part of the full barrier should be installed in the first instance, narrowing the access. The remainder should only be installed if there is a problem after completion of the route.

It should always be borne in mind that a high level of usage is the best form of deterrent when considering issues such as motorcycles, fly tipping and occupation by caravans.

Coloured Surfaces

Coloured road surfaces can be used to draw attention to highway features. However, they do not convey meaning, which is the role of traffic signs and road markings.

The use of colour to increase the prominence of cycle facilities can:

improve safety encourage compliance with traffic regulations raise the profile of cycling reinforce route continuity and make route finding simpler, thus potentially reducing the number of signs required.

It is recommended that cycle facilities be coloured at the following locations:

advanced stop line reservoirs and approach lanes locations where there is potential for conflict with motor vehicles at points where cycle tracks join the carriageway cycle lanes along heavily trafficked roads locations where there is a need to highlight the presence of a cycle track to pedestrians. (Note that it cannot be relied on as a sole means of segregation).

The colours most commonly used for cycle facilities are red or green. DOT authorisation is not required for colouring road surfaces. It is important that National Cycle Network facilities blend with sensitive physical environments.

The materials most commonly used to achieve a coloured surface are:

- thermoplastic paint - resin based materials with coloured chippings - slurry seal.

In choosing a particular material the following factors will need to be considered:

- skid resistance (minimum PSV 50) - adhesion to existing surface - colour retention - durability requirements of location - cost - quality of ride (comfort).

Other materials which have been used are road paints and coloured tarmac. Coloured tarmac produces more muted colours and is more appropriate for new construction.

Thermoplastic paint is recommended when it is machine laid in a 3mm thick coat with a high aggregate content to provide good skid resistance. The use of thermoplastic sheet has been successful in some situations but is expensive.

Resin based materials (epoxy or polyurethane) with coloured chippings are the most expensive form of coloured surface. It is recommended that naturally coloured chippings be used as there will be no colour loss with wear. The screed can be coloured to enhance the colour contrast.

Slurry seal is the cheapest material but is not recommended for on-road use primarily because of problems of colour retention and durability.

Maintenance

When designing a cycle route it is important that maintenance costs are included in the assessment of scheme options. All aspects of construction have maintenance costs associated with them whether sweeping, hedge/grass cutting, cleaning, replacing, repairing, resurfacing, re-painting, unblocking or reconstructing.

Good design will help to reduce maintenance costs. Due to their restricted width, a high standard of reinstatement is essential when any works are undertaken within a cycle track or lane, retaining an even surface for cyclists. Repairs and reinstatement must be done in sympathetic materials.

Lighting

In general lighting will be required on routes used for commuting, which will tend to be associated with urban areas where carriageways and footways are already lit.

Lighting should normally conform to the requirements of BS5489 and care should be taken to minimise its effect on local properties. The National Cycle Network should not encourage unnecessary lighting.

Care must be taken to locate lighting columns clear of the path so that they do not cause obstruction to users.

National Route Direction Signs - Figure 9.1

Notes

1. 'x' - heights of cycle signs can vary between 30-60mm. The 30mm 'x' -height will be prescribed in the Amendment Regulations to be issued in Spring 1997. An exception to this is the waymarker signs where the 'x'-height is 24mm.
2. The signs detailed are primarily direction and information signs intended for use by cyclists and not particularly relevant to motorists. The 30mm and 35mm 'x'-height will normally be adequate. The DOT advise that the 30mm 'x'-height is used for off-road routes, and a minimum of 35mm on road. However, care should be exercised when using a small 'x'- height for on-road situations, particularly in the urban environment where legibility, conspicuity and safety may require a larger 'x'- height at important signing locations.
3. It is expected that the signing detailed opposite will be prescribed in the Amendment Regulations in Spring 1997. Prior to this, authorisation will be required.
4. Normal principles of sign design apply and Transport Medium Alphabet shall be used.
5. The rectangular sign with the directional arrow (straight ahead) is an advanced direction sign for use prior to reaching a junction. The arrow may be varied to point left or right, or be inclined left or right. The flag signs (left and right turn options) are for use at the junction.
6. The signs detailed are to supplement the signs required and prescribed within the Traffic Signs Regulations and General Directions.
7. National Cycle Network route numbers are to be white on a red background.
7. Regional route numbers are to be white on a blue background.
9. Dimensional drawings to enable these signs to be manufactured accurately are given in Appendix 111.

References

1. Local Transport Note 2194: Directional Information Signs - Interim Design Note

National Route Direction Signs – Figure 9.1



Route To National Cycle Network



National Route Turn Left Here



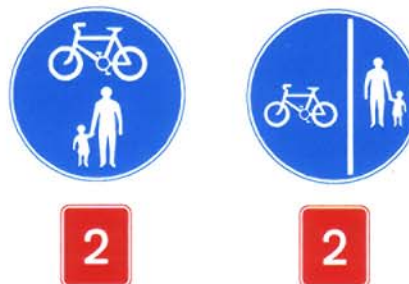
National Route Straight On at Junction Ahead
(Direction of arrow may be varied, see note 5)



National Route Waymarker



Tourist Destination



Diag No. 956 and Diag No. 957
with route number patch plate
added on same post

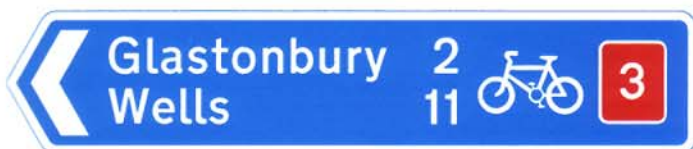


Recommended Route

Regional Route Direction Signs



Regional Route Turn Right



Recommended Route Alternative Layout

Note: All national route direction signs can be used as regional route direction signs by replacing the red patch number with a blue patch number as above

Tactile Marking for Segregated Facilities - Figure 9.2

Notes

1. In urban areas where pressure on facilities is greater and where there are significant numbers of vulnerable pedestrians (disabled, blind and partially sighted and aged) complete segregation by means of dedicated cycle track or a level difference between the footway and a cycle track should be the aim of the highway authority, particularly in new developments. Where it is not feasible to achieve segregation by either of those means then segregation should be achieved by the use of tactile surfacing and raised white line delineator (Diag No. 1049. 1). A 20mm height is recommended for this.
2. The DOT Mobility Unit has commissioned a research project to re-evaluate the raised white line delineator (Diag No. 1049. 1) and to look at alternatives. It is anticipated that this report will be available in 1997. Up-to-date guidance in the use of the raised white line delineator should be obtained from the DOT.

References

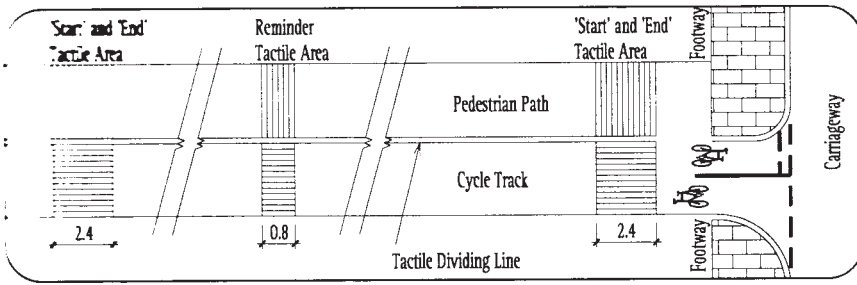
1. Traffic Advisory Leaflet 4/90: Tactile Markings for Segregated Shared Use by Cyclists and Pedestrians
2. Local Transport Note 2/86: Shared Use by Cyclists and Pedestrians (S)
3. Disability Unit Draft Guidance Note: Guidance on the Use of Tactile Paving Surfaces
4. Disability Unit Circular 1/91 The Use of Dropped Kerbs and Tactile Surfaces at Pedestrian Crossing Points

Examples

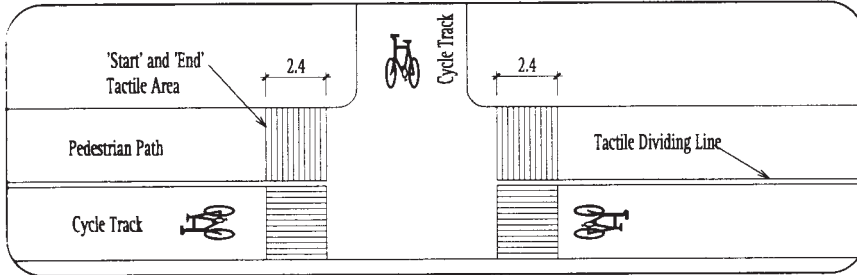
There are numerous examples of these facilities

1. YORK: Water End
(York City Council)
2. COVENTRY: Tile Hill Lane
(Coventry City Council)

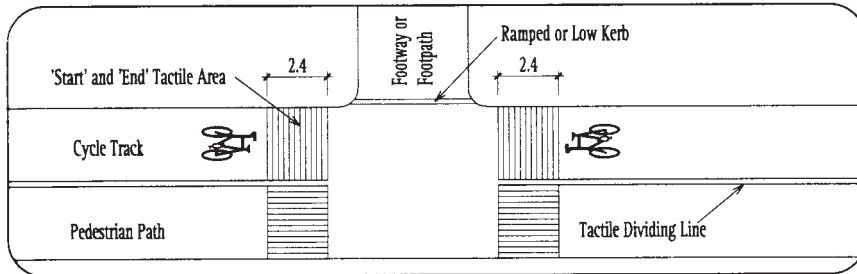
Tactile Marking for Segregated Facilities – Figure 9.2



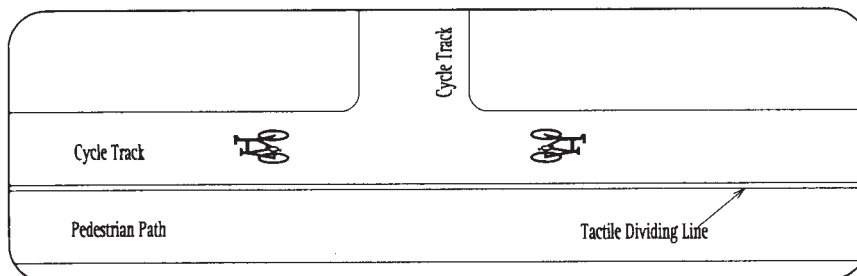
1. Shared Cycle Track/Pedestrian Path showing different end treatments



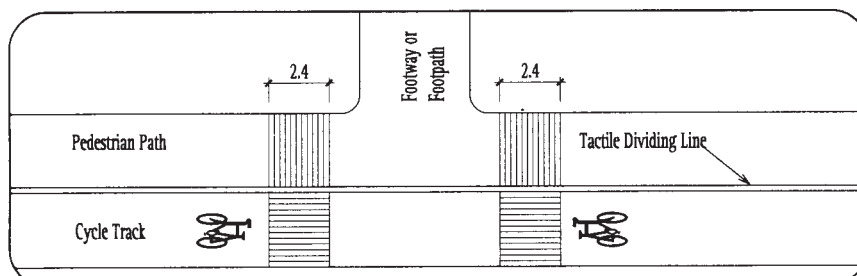
2. Junction where a Cycle Track crosses a Footway or Footpath



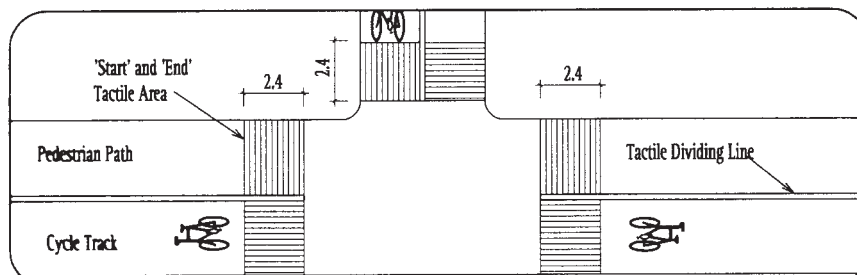
3. Junction where the Footway or Footpath crosses a Cycle Track



4. Junction with a Cycle Track



5. Junction with a Footway or Footpath



6. Junction with a Segregated Cycle Track/Pedestrian Path

Cycle Parking - Figure 9.3

Notes

1. Sheffield stands enable cyclists to secure both frame and wheels to the stand.
2. A minimum gap of 0.8m should be left between stands to allow two cycles per stand. If a narrower gap is used, capacity may be reduced.
3. All steelwork to be provided with adequate corrosion protection.
4. Street furniture should be utilised for parking cycles wherever appropriate eg. railings and tree guards. Cycle parking sign Diag No. 968 may be fixed to the relevant street furniture. Care should be taken to avoid obstructing the footway. This should not be seen as a substitute for the provision of cycle parking stands.
5. Parking facilities should be conveniently located, secure, easy to use, adequately lit and well sign posted. Weather protection should be considered.
6. Generally, parking should be placed within a populated, well supervised area and as close to amenity locations as possible.
7. Wall bars are an alternative fixing device which may be considered where there is limited pavement available for a Sheffield Stand. Hitching rings or loops are a form of wall bar which may have aesthetic attraction at some locations.
8. A minimum spacing of 1800mm for wall bars will allow one cycle per wall bar. If the number of wall bars is increased then this will allow more locking options for the cyclist.
9. The use of single wheel holders provides less security and can cause damage to cycles.
10. In rural areas or at historic sites, the standard Sheffield stand as shown may be intrusive. In such circumstances an equivalent degree of security can be provided by stands based on the same principles but of a form more in keeping with the location.

References

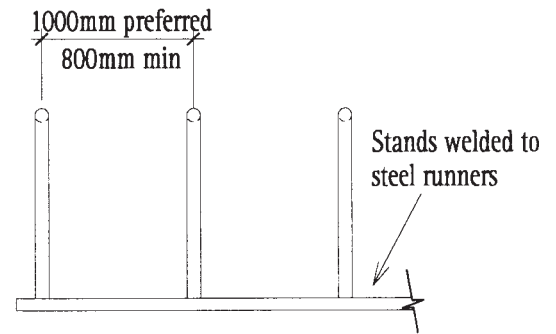
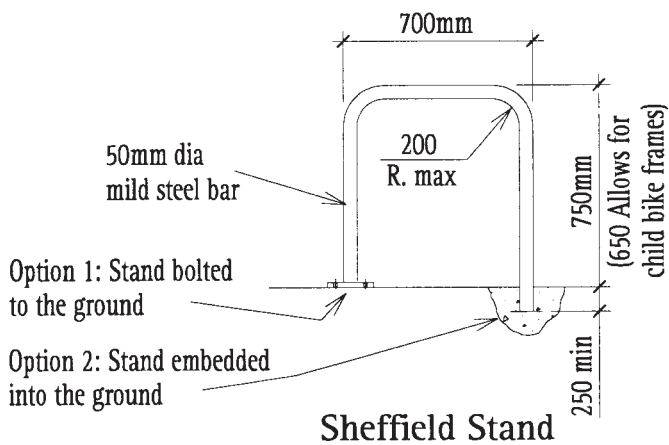
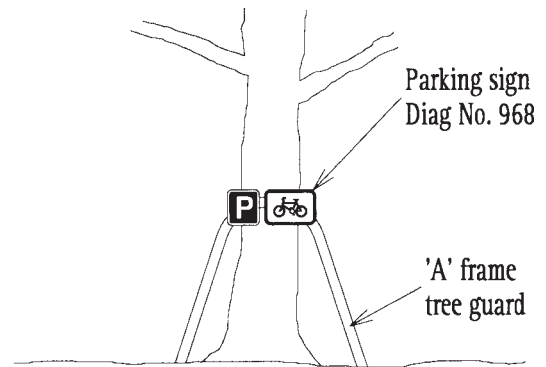
1. Local Transport Note 1/89: Making Way for Cyclists (S)
2. CTC Technical Note - Cycle Parking

Examples

1. BRISTOL: Broadmead Shopping Area
(Avon County Council)
2. BULWELL, NOTTINGHAM: Leen Valley Path
(Nottinghamshire County Council)
3. OXFORD: Oxford Station
(Oxfordshire County Council)
4. NOTTINGHAM: Queens Medical Centre (700 spaces)
(Nottinghamshire County Council)
5. BIRMINGHAM: Aston University
(Aston University)
6. OXFORD: St Aldates (hitching rings)
(Oxfordshire County Council)

Cycle Parking – Figure 9.3

Street Furniture: Where suitably located, this can be a most convenient form of cycle parking, e.g. railings and tree guards. Its use should not cause obstruction to pedestrians. Sign Diag No. 968 should be fixed to the relevant street furniture

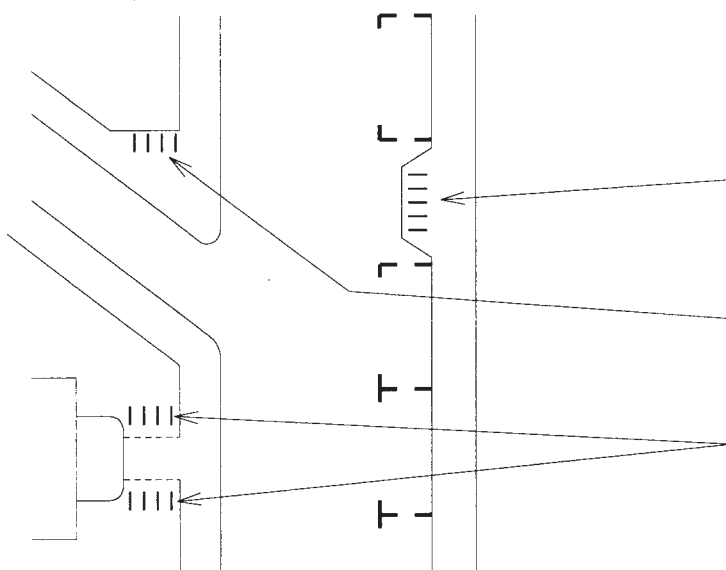


Sheffield Stand

"Toast Rack" of Sheffield Stands

Wall Bars and Hitching Rings: These should be considered where cycle parking is to be provided alongside a wall or the side of a building, where there is limited footway space. The fixing should be embedded in the wall at about 750mm above ground level

Bicycle Size: The space required for a parked bicycle may be taken as 1.8m length and 0.6m width across handle bars



On Carriageway: Road space can be given over to cycle parking, for example by removal of car parking bay. The cycle stands should be protected from encroachment by motor vehicles

Footway: Cycle parking on the footway should be located where it is unlikely to cause obstruction to pedestrians

Off-Street: Cycle parking should be in prominent locations near entrances to major attractions. Appropriate standards for cycle parking should be imposed on new developments

Access Barriers - Figure 9.4

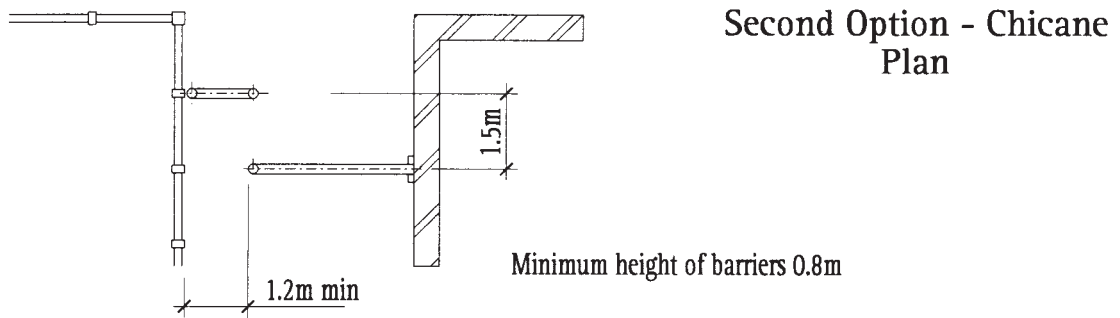
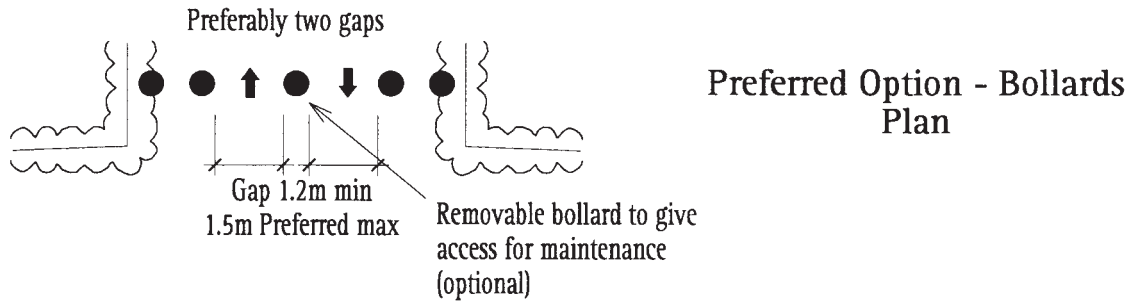
Notes

1. The access on to a cycle track/footpath should be well designed and will sometimes require security of access combined with a feature entrance. Barriers are generally inconvenient to regular users and cause difficulty for certain types of cycle and for wheelchair users. Bollards should be the first choice to discourage access by motor vehicles. If motorcycles subsequently become a nuisance then more restrictive forms of barrier should be considered. Heavy use by cyclists and pedestrians should help deter unauthorised use.
2. In urban areas there will be frequent access points and provision of complex controls will be expensive and restrictive and deter cyclists. In these areas simple gaps 1.2m wide may suffice as deterrents to motorcycles. A width of 1.2m is sufficient to allow access for the largest types of cycle currently used by people with disabilities.
3. Wheelchair users negotiating the access barrier may need to swing under the barriers when turning. The barriers on the wheelchair bypass should therefore comprise a single rail with a 700mm clearance to the ground. Fences/walls etc adjoining the wheelchair bypass must meet it at one of the corners, and free space to a distance of 450mm outside these rails should be provided.
4. Maintenance vehicle access points are not needed for vehicles to travel the whole length of the cycle track/footpath. Access to points along the path are all that is necessary. This can be achieved by the occasional access gate to the side of the path.
5. The barriers in the detail are shown constructed in tubular steel, however they may be constructed using local or reclaimed materials in keeping with the area, subject to maintaining the clearances required. The bollards too should be constructed to enhance the environment.
6. All steelwork is to be provided with adequate corrosion protection.
7. Consideration must be given to the visibility of bollards and barriers so that they do not cause a hazard to path users. The use of high visibility paints or signs may be necessary.
8. The details shown here do not preclude the use of innovative design for access barriers which meet the philosophy set out in this figure and which may be more appropriate for particular locations eg. pedestrian/ cycle access barrier on the National Trust property at Clumber Park, Nottinghamshire. Sustrans are able to advise on further designs such as large wicket gates and cattle grids.

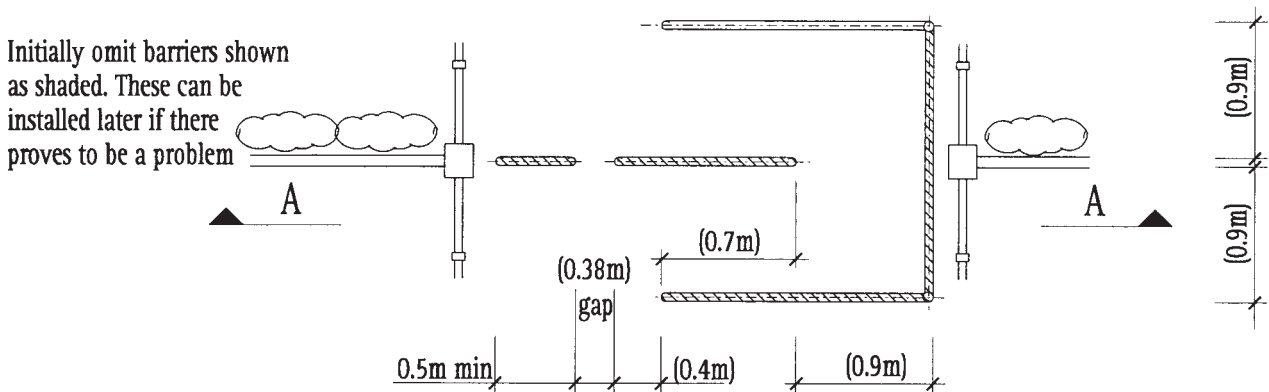
References

1. Local Transport Note 1/86: Cyclists at Road Crossing and Junctions (S)
2. Making Ways for the Bicycle: A Guide to Traffic-Free Path Construction - Sustrans
1. YORK: New Walk Cycle Route
(York City Council)
2. BRISTOL: Avon Ring Road/A431
(Avon County Council)
3. CANTERBURY: Rheims Way Subway
(Kent County Council)
4. OXFORD: University Parks
(Oxfordshire County Council)
5. CAMBRIDGE: Regents Street/Parkers Piece
(Cambridgeshire County Council)

Access Barriers - Figure 9.4



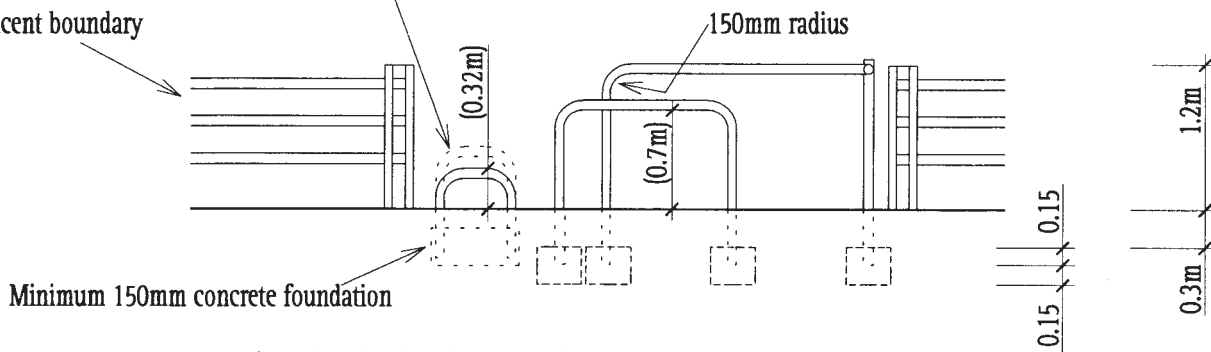
Third Option - Barrier (With Wheelchair Bypass) Plan



Section A - A

Height may be raised to 0.5m where scramble motor cycles are foreseen as a problem

Adjacent boundary



Dimensions bracketed are essential for the effective operation of the barrier