

ADVICE ON

# Specifications and Standards recommended for equestrian routes in England and Wales



The British Horse Society is often asked to provide specifications for various aspects of rights of way. We are also asked for advice on other facilities such as margins alongside roads, or bridges over roads or streams. Some standards are required by law, others have been agreed with the Department for Transport. In most cases a desirable specification is given and it is stressed that this recommended standard is to be regarded as the norm, and that a lesser standard will only be acceptable in exceptional cases.

Conditions of terrain and soil type in different areas mean that riders adapt to different local situations. Therefore, each case should be considered on its merits in consultation with the Society's local Access and Bridleways Officer.

This Advice Note provides a readily accessible summary of the main practical points about providing access for horses and riders, which are intended to complement and refer to other relevant sources of information, such as our publications on Gates and Cattle Grids.

Riders are no different from walkers and cyclists, or indeed, anyone else who enjoys the countryside in that they (and their horses) come in all shapes and sizes, with considerable variety in their interests, skills, needs and preferences. Some prefer well-defined, surfaced routes, whereas others enjoy the challenge of informal, ill-defined paths across remote hills.

The key is to provide a variety of routes, surfaces and experiences, and to take into account basic needs, aspirations and constraints of all users.

## Recommendations

### Widths

#### In Modification Orders

The Society will object if the width stated is less than that for which there is substantive evidence, or if a single whole route width is stated where there is evidence that the path is demonstrably wider in places.

#### In Diversion Orders

The Society encourages Order Making Authorities to adopt a Recommended Standard of 5m (16½ft) width for diverted bridleways.

The Society will usually object to bridleway diversion proposals where the width of the replacement bridleway is less than 4m (13ft) unless exceptional circumstances apply.

## In Creation Orders

The Society encourages Order Making Authorities to adopt a Recommended Standard of 5m (16½ft) width for new bridleways but recognises that a lesser width may be necessary in order to create any path in some cases. The Society will encourage the provision of the standard 5m width whenever possible.

For greenways and those considered to be of strategic importance, 10m (33ft) allows for better segregation of different classes of user and for the provision of trees and hedges and benches for resting walkers, so making the route more pleasant for all users.



## For general maintenance or enforcement purposes

Where there is no substantive evidence of a path's width, the Society will request that a width of no less than 3m (10ft) is cleared. If the Definitive Statement includes a width, then a minimum of that width should be reinstated so long as it is wide enough to be practical (at least 3m if bounded on one or both sides, 2m if open).

## General points

Where it is required to turn a horse (in order to close a gate, for example), the ideal space required is at least 4m x 4m. Many large horses require more than 4m to turn easily. The absolute minimum space required is a diameter of 3m (9ft) on clear, flat ground with no protusions or overhanging vegetation. This will be too restrictive for some horses and could result in injury should a horse panic at being so constrained. It allows no leeway at all for a horse being startled by a sudden movement or sound, perhaps from wildlife in a hedge, or for coping with temporary conditions such as standing water or preferably more to avoid potential of injury on fencing, gates or other structures and if ground is uneven or there is overhanging vegetation.

The width between gateposts (S.145 Highways Act 1980) should be five feet on a bridleway, 10 feet on a byway or (BOAT or RB) or road (surfaced or not).

To avoid injury, posts should be rounded off and there should be no barbed wire or electric fence for at least 2m on either side of a gate.

S.164 Highways Act 1980 provides that the presence of barbed wire by a

right of way can constitute a public nuisance.

Adequate turning space and safe loading and unloading areas are essential where parking is provided for horse boxes and trailers.

## Heights and Overgrowth

The minimum height of a mounted rider is 2.55m above ground level. Overhanging branches, overgrowth from the sides and any other obstructions should be cleared to a height of 3.7m (minimum 3.4m) on all routes.

## Road Crossings and Other Facilities

The Design Manual for Roads and Bridges Volume 6 Section 3 Part 3 TA 57/87 (published January 1989, current at September 2012) includes recommendations in Chapter 11 for roadside facilities for ridden horses.

The Design Manual for Roads and Bridges Volume 6 Section 3 Part 5 TA 90/05 "The Geometric Design of Pedestrian, Cycle and Equestrian Routes" contains useful specifications including speed, visibility, gradient, headroom and crossings.

The Manual is available online at [www.gov.uk/dft](http://www.gov.uk/dft), search for DMRB.

## Pegasus Crossings

Recommendations for Pegasus Crossings are produced by the Department of Transport in Traffic Advice Leaflet (TAL) 03/03 Equestrian Crossings <http://assets.dft.gov.uk/publications/traffic-advisory-leaflets/equestrian-crossings.pdf> or search [www.gov.uk/dft](http://www.gov.uk/dft) for Traffic Advice Leaflets.

### Additional points regarding Pegasus crossings are:

- 1 Ideally, any of the horse buttons on a Pegasus crossing should give a shorter waiting time than the ordinary pedestrian/cycle level buttons.
- 2 Buttons should be positioned at a height that accommodates the height variation from a child's pony to a large horse so they can be easily reached by all riders and 1.5m is recommended.
- 3 Waiting pens are not always necessary and may be considered site by site. There is a simple Pegasus crossing on the edge of Lincoln that has no waiting pen, in spite of being on an 'A' road into the city centre.

Waiting pens are not constructed at every point where bridleways cross roads. If there is a good flow of walkers and cyclists as well, then separation or pens may be advisable, but are not necessary everywhere.

- 4 Fencing around waiting areas at Pegasus crossings in rural areas is only



necessary if there is a drop or some other hazard beyond it, unless the waiting area is in the middle of a dual carriageway, when it is clearly helpful. Sometimes, however, waiting areas mean that the gate at the end of the bridleway can be set back away from the road so it can be dealt with safely away from traffic, and the pen gives the horses a safe waiting area where they cannot easily step into the road if a rider's control lapses.

- 5 Traffic Advice Leaflet 03/03 (DfT TAL) states under Shared Use that, "it is usually desirable to provide a cyclist and/or pedestrian as well as an equestrian crossing facility". This is excessive in most circumstances, particularly as it almost doubles the costs of equestrian crossings, making them prohibitively expensive to install, and it doubles the ugly furniture which makes them so unwelcome in the countryside.
- 6 Horse riders and walkers and cyclists have co-existed on many bridleways that have a width of less than 3m without problems, and they wait to cross roads together where there is no Pegasus crossing with no reported incidents between non-motorised users.
- 7 All that is needed in most rural situations is a reasonable sized holding area for horses behind the one for walkers and cyclists, and for the button for equestrian use to be sited in the equestrian holding area.

## Gaps and Gates

The Society is often asked by government agencies, local authorities and

landowners for the ideal equestrian gate. For ultimate safety, convenience and ease of use there should be no gates across a route. A gate is a barrier that has to be negotiated by equestrians, and no matter how good its design or installation there is a risk attached. Specifications for gates and latches and other barriers can be found in the BHS publication on Gaps, Gates and Barriers.



## Bridges

It is essential that any plans to cross a watercourse must first have the consent of the Environment Agency. Following construction and before use, a bridge should be certified by a Chartered Civil Engineer to ensure that the structure has been suitably constructed to fulfil its requirements.

The following specification represents the ideal desired by equestrians for new bridges and may be essential to ensure the safety of all users at some sites. If the specification cannot be achieved or seems

inappropriate, perhaps in a remote rural location, the Society strongly advises consultation with its local Access and Bridleways Officer to establish what may be acceptable at a particular site.

## Parapets

- Horses will be alarmed by traffic passing beneath them, whether it is on a navigable river, road or railway. Their view of traffic should be obscured by solid infill of parapets. The faster the potential speed of traffic, the greater the height of the infill required. This also applies to fast-flowing or turbulent water.
- Higher parapets are desirable – 1.8m is less likely to be jumped by a horse and it increases protection for a rider from falling off the bridge should he, for any reason, fall from the horse.
- Bridges over bogs should normally have a parapet because a horse falling off the bridge may become stuck in the bog and the danger is greater than landing in water.
- Parapets are not always necessary, particularly on short spans with low deck heights and need is likely to be influenced by the local terrain.

## Width and Sightlines

- It is undesirable to pass other users on a bridge with a width of less than

3m. Sightlines are essential to see whether the bridge is clear before committing to it. A width of less than 3m may be insufficient to turn a horse once on the bridge, and to do so could be dangerous.

- Negotiating a gate requires manoeuvring space, in line with the gate as well as before and after it – 3m is required to allow the horse to be alongside the gate, with 1.8m beyond the catch end. Therefore, gates should not be installed on bridges narrower than 3m. This includes at the end of a bridge, because in one direction the horse would be negotiating the gate from the bridge, which would not have enough space in which to turn.
- Waiting areas should be at least 3m in width and length, 4m is preferable. The area should increase with the potential waiting period as horses may become restless, particularly if the environment is threatening.
- Bridges carrying roads with high volumes of traffic should have a segregated marked route for horse riders.
- There should be no bollards or other width limitations on the bridge or in the waiting area.

## Clearance

- Where a canopy is provided to any bridge it should have a height of 3.7m (minimum of 3.4m). In exceptional circumstances a lower height may be acceptable for the horse to be led when mounting blocks are present. Advisory notices may be required if the low height is not obvious at a point where it is safe to dismount.
- Overhanging vegetation should be clear of the bridge by 3.7m. Bridges overhung by trees may become slippery from vegetation or moss and greater attention will be needed to prevent slipping and rot.

## Structure and surface

- Live load 5kN/sq m (BS 5400), point load 8.12kN.
- Structures should be stable; decking substantial and non-echoing, with no gaps in the decking through which the river, road or railway can be seen. Deck boards should be laid at right angles to the sides of the bridge.
- Surfaces of bridges must be non-slip: stone mastic asphalt should never be used. A hard wearing non-slip surface can be created by coating a wooden deck with epoxy resin and bauxite grit. Wooden cross-struts may be fixed to slopes, but water and organic material may collect against them, causing rot; they may become loose and their edges are

vulnerable to wear as struck by hooves. Metal is noisy and alarming to horses. Wood is slippery when wet. Non-slip surfacing also dulls noise, which is preferable.

Bridge Specifications for Equestrian Use Over Watercourses (ditch, stream or river)							
Route Type	Span	Deck height	Width	Parapet <sup>1</sup> height	Infill <sup>2</sup> height	Kickboard	Kickboard/ Infill Uplift <sup>4</sup>
Bridleway	< 3m	< 1m	2m				
Restricted Byway, Byway	< 3m	< 1m	3m	1.2m <sup>3</sup>	0.6m <sup>3</sup>	250mm	25mm
All routes	3–8m	< 1m		1.8m <sup>3</sup>			
All routes	< 8m	> 1m	4m no parapet 3m with parapet	1.2–1.8m <sup>3</sup>			
All routes	> 8m	> 1m	4m	1.8m <sup>3</sup>			
N.B. Parapets or infill are not always required, contact the area Access and Bridleways Officer for advice on specific circumstances.							
Bridge Specifications for Equestrian Use Over Roads and Railways							
Route Type	Span	Deck height	Width	Parapet <sup>1</sup> height	Infill <sup>2</sup> height	Infill Uplift <sup>4</sup>	
Any route over road	Any	Any	Minimum 3m	1.8m	1m	25mm	
Any route over railway					1.8m	Not applicable	

<sup>1</sup> Higher parapets are desirable because 1.8m is less likely to be jumped by a horse and it increases protection for a rider from falling off the bridge should he for any reason fall from the horse.

- <sup>2</sup> Infill is solid panelling fixed to the parapet railings to obscure a horse's view of traffic or turbulent water passing beneath the bridge.
- <sup>3</sup> Parapets or infill may not be practical over watercourses where flood potential could allow waterborne debris to collect against the parapet uprights or infill and increase stress on the bridge.
- <sup>4</sup> Uplift is the gap between deck and kickboard or infill.

(Further information on bridge construction is available in Path Bridges: Planning, Design, Construction and Maintenance, from the Paths for All Partnership (01259 218888) [info@pathsforall.org.uk](mailto:info@pathsforall.org.uk) for £40. It is recommended that BHS specifications are followed in preference where the guide differs.)

## Other

- There should be no barbed wire or electric wire on or adjacent to the bridge or waiting area.

## Fords

Fords are usually cheaper than bridges and may be appropriate where the maximum depth of water is 0.5m in normal conditions.

The force of water flow in normal conditions should allow a horse to walk easily without being pushed off course.

The base of the ford within the watercourse must be firm, level, free from holes and non-slip. Often levelled bedrock or the natural bed of the watercourse will fit these criteria with little intervention. In other locations, ridged concrete or stone setts may be required.

Entry points must be firm and able to withstand fluctuating water levels and potential damage from horse use without erosion or poaching. Stone pitching may be necessary in some situations to protect the entry points.

Ideally, the gradient of the entry points should be no more than 1 in 12 though 1 in 10 may be acceptable if the bank is shallow. The entry points must shelve into the river – abrupt banks are unsafe because a horse would have to jump in or out with high potential for slipping or falling.

Depth poles and markers for entry/exit points should be provided where the ford is wider than 4m.

Where the ford is through a river which has a strong current at times, no sharp or dangerous objects should be close to the path on its downstream side.

Stepping stones or footbridges for pedestrians should always be on the upstream side of the equestrian crossing to ensure the horse is not swept

towards any sharp edges or pinned against the structure.

If a ford is being considered, then permission must be gained from the Environment Agency (or equivalent depending on the country) prior to any work taking place.

## Underpasses

Where underpasses are constructed to enable riders to cross below a road, the ideal height is 3.7m (12ft), minimum 3.4m; and the desirable width is 5m (16½ft), minimum 3m (10ft).

While the Society seeks the desirable height for under-passes, in exceptional circumstances a lower height may be tolerated. When 'cattle height' for an underpass is locally agreed as acceptable for riders, they would be expected to dismount. In this case, a mounting block should be provided at either end.

## Mounting Blocks

A rider usually has best control of a horse while mounted, but there are some circumstances in which it is desirable to provide mounting facilities. The BHS advice note on Mounting Blocks provides full details. In brief:

- Step height 240mm to 260mm
- Total height 780mm
- Width at least 600mm
- Step length at least 450mm
- Top platform length at least 750mm
- It is strongly recommended that steps are provided at both ends of the central platform so that if a horse walks forward, the rider can go down the steps rather than have to jump off a high platform.
- Clear manoeuvring space 3.7m high and at least 1.8m wide to the right side of the mounting block as the rider goes up it, and contiguous with it, extending 3m before and beyond the mounting block (permitting the rider to mount the horse from its near side).
- The material forming the mounting block should be such that striking it with horses' hooves or rider's footwear should not make a sudden ring or noise likely to startle a horse.
- The material forming the steps and platform should be of a non-slip nature.

## Fencing

As a general guide the following types of fencing are suitable for horses and ponies, and can be used safely alongside rights of way, although some are more desirable than others:

- post and rail wooden fencing;
- post and rail impact resistant plastic;
- post and rail – solid uprights/flexi-rails (PVC or rubber-coated webbing).

Wire fencing (both straight and barbed) is less desirable and potentially injurious. If barbed wire is proved to be a nuisance it is illegal (S.164 Highways Act 1980).

Electric fencing should never be used alongside or across bridleways except where proper provision has been made at gates by raising the wire above the gateway at a height of 3.7m (see Advice Note on Electric Fencing).

## Gradients

For general purposes, a gradient of 1 in 12 is the ideal maximum for ridden use. However, account must be taken of the geographical features of the area and discussion between the local BHS Access and Bridleways Officer and highway authority is essential.

On very steep routes it is sometimes necessary to cut steps into the path to facilitate passage.

For ridden use the specification is:

Length of step: 2.9m (9ft) (to allow horse to stand on all fours on each step)

Height of riser: 150mm (6 inches)

In order to make use of limited land space, it is acceptable to allow a slight slope downwards towards the riser.

## Road surfaces

Some road surfaces can be extremely slippery and cause horses to slide, stumble or fall. There are a number of surfaces that do this, but Stone Mastic Asphalt is one of the main culprits.

This surface is laid because it offers a quiet option for traffic, is extremely hard wearing and does not need replacing very often. However, if it is not laid correctly it is very slippery for equestrians. It is now being found in many rural areas as well as busy urban roads and motorways, and it is causing equestrians problems. If laid correctly, there should be no difficulty with horses using it, but if it is not, then problems arise.

The BHS has worked very hard with the County Surveyors' Society (CSS, which is now part of the Association of Directors of Environment, Economy and Transport, ADEPT), to alleviate any problems and a useful booklet has been issued jointly by the two organisations as guidance for highway engineers on horses and highway surfacing. It is available from the BHS at

[www.horseaccidents.org.uk/Advice and Prevention/Riding on the Road/Slippery Roads](http://www.horseaccidents.org.uk/Advice%20and%20Prevention/Riding%20on%20the%20Road/Slippery%20Roads) and is also useful advice for equestrians who may wish to draw it to the attention of highways departments or contractors undertaking surfacing.

The presence of at-grade crossing points can be emphasised to motorists by installing white rails for a short distance alongside each end of the bridleway, at right angles to the carriageway. Using contrasting colour grit on surface applications for crossings can also draw attention to their presence.

## Road signs and street furniture

Regard should be given to the siting of all signs and other street furniture alongside a carriageway so that they do not block riders' passage and sight lines. Sharply pointed signs should not be level with the head of horse or rider. Major signs should be placed at a height that allows riders to pass safely underneath.

## Margins/Verges

Margins should be provided where it would be hazardous for riders to use the carriageway (S.71 Highways Act 1980) especially where the road forms an essential link to the rights of way network. Where there is significant usage a path may be hardened for riders' use (DfT Advice Note TA 57/87).

Road margins should not be allowed to become dumps for spoil. Verges are often legally part of the carriageway and should not be obstructed. They form a vital safety zone for riders. It is recognised that verges are sometimes used for conservation or ornamental purposes, but care should be taken to ensure that such use does not impede the passage of the public.

This Advice Note should be read in conjunction with other BHS advice which should be requested from the address below.

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### Access Department

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This advice note applies to England and Wales. For information on Scotland, contact Helene Mauchlen, BHS Development Officer for Scotland, Woodburn, Crieff, Perthshire PH7 3RG

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