Advice on
Road crossings and including equestrians

The British Horse Society

The law and management of public access rights vary widely between the four countries of the United Kingdom. Practical elements of the following advice apply in all of them but the legal requirements in Scotland and Northern Ireland may differ from those in England and Wales.

More advice is available on www.bhs.org.uk/accessadvice.

IMPORTANT This guidance is general and does not aim to cover every variation in circumstances. Where it is being relied upon, The Society strongly recommends seeking its advice specific to the site.

Contents

Light-controlled crossings 2
Waiting time 3
Design and construction 3
Examples of non-standard light-controlled crossings 5
Warning signs 5
Joining a road 6
Sightlines 6
Corrals or staggered barriers 7
Obstructions and barriers 7
Trunk roads and dual carriageways 7

Routes used by equestrians include bridleways, byways, unsurfaced unclassified roads, quiet lanes, permissive paths, commons and some public open space. These very rarely form a coherent network, so riders and carriage-drivers have no choice but to use busy roads, predominantly used by motor traffic, to reach them. The following advice is referring to busy or main roads, which equestrians will avoid travelling along if at all possible, unless there is provision for them within the verge or otherwise off the main carriageway, but will need to cross them, otherwise the road is a complete barrier to a journey.

An underpass or bridge are the ideal for crossing a busy road but too frequently are impractical and an at-grade crossing is the only option, in which case, it may need to be signal-controlled so users have the chance to cross.

Light-controlled crossings

Light-controlled crossings are the best means of improving safety for crossing roads at-grade. Where new roads are planned, the British Horse Society recommends construction of underpasses where feasible as first choice.

Light-controlled crossings are user-operated by a press-button control, sensor or Bluetooth app which changes 'traffic lights' to stop road traffic while users cross.

The standard design for a multi-user[1] light-controlled crossing in the government's guidance segregates equestrians from cyclists and pedestrians by having two parallel crossings (sometimes called a 'Pegasus' crossing, like a pedestrian 'Pelican' crossing). This frequently means that a crossing which includes riders is refused because of insufficient space and doubled cost, resulting in a frightening number of crossings used with horses where pedestrians and cyclists have a protected crossing, but equestrians are forced to risk the uncontrolled traffic to cross or are prevented from crossing. This is highly discriminatory and a situation which can be changed at relatively low cost.

Conflict between different users while waiting or crossing is the reason given for a dual crossing, however, evidence to justify it has not been seen by the BHS and few sites are likely to have a level of traffic where segregation is justified. For instance, riders would avoid peak periods,

For the majority of sites, riders can be included in a standard pedestrian-cyclist crossing by a simple addition of a user-control for riders set back from the kerb within easy reach of a rider's hand (1.7-2m). This provision enables equestrians to cross a road in safety. Conflict with other crossing users is unlikely and avoidable, as on all bridleways and byways, by adopting the basic highway principle of consideration and 'giving way' to other users as appropriate. The risk of conflict is far less than the risk to riders from having to cross without control of the motor traffic.

The Society suggests options dependent on the site and number of non-motorised users using the crossing at any one time. A heavily used site may require a DfT-standard dual crossing, but for most sites, all users can be adequately served by a pedestrian crossing plus a control at rider's hand height (1.7-2m) set back from the road either:

1. Where a bridleway or byway meets the road crossing, the user-control for riders is sited along the bridleway/byway 5-6 metres back from the kerb, or

2. With additional user-control on a pole at the opposite side of a 'footway' from the kerb so a ridden horse is as far as possible from the traffic while a rider operates the control

[1] Pedestrian (including with mobility aid), horse-rider, cyclist

In 2, the additional pole can also benefit any user, in being a little further from motor noise and pollution, and feeling safer. There is particular advantage for those with a pushchair, wheelchair, mobility scooter, recumbent cycle, tandem or cargo bike, who are not well-served by the standard kerbside pole placement. A lower control for them can be installed below that at rider's height, thereby providing for all users in safety.

Lights can be operated by sensor or by Bluetooth devices to accommodate users (developed for users with disabilities but extendable to all) without them needing to manually operate a control. A small device is fitted to the control box (retrospective or new installation) and linked to a sensor or a phone app (which is advertised to users) to activate the call. This option avoids the need for an additional pole and the standard kerb location of a single pole may work for all users. In 2022, the cost of the device was around £1,000; an additional pole and control box set back from the kerb was £10,000.

Standard pedestrian crossings require tactile paving. Tactile paving rarely presents a problem to horses in a small area (as found at a crossing) so is not a constraint on including horse-riders.

Waiting time

The waiting period between pressing the button and lights changing to stop the traffic is of primary importance for riders as it should be as short as possible to avoid horses becoming restless while waiting. This is the primary reason for setting call controls well back from the kerb, so that traffic halts as a rider reaches the crossing.

On a dual carriageway where it is inappropriate to halt both carriageways simultaneously, the Society strongly recommends that controller configuration conditioning uses 'call forwarding' to halt the traffic on the far carriageway as the rider reaches the central reservation, so horses are not waiting in the centre and a rider is not needing to manually operate another control, and that the near carriageway traffic is not released until horses have left the central reservation. The aim should always be to avoid:

- waiting in central reservations, where horse and rider are at greatest risk because of the unpleasant environment;
- taking a hand from the horse to press a button, which is a precise action taking attention of the rider from horse and environment when it is least desirable to do so;
- moving traffic both in front and behind the horse.

Design and construction

Recommendations for crossing construction and dimensions were produced by the Department of Transport in Traffic Advice Leaflet 03/03 Equestrian Crossings. This advice

has been archived and not replaced but still appears widely assumed. The Society considers the specification to be over-complex for most sites and not to be relied upon.

It is replaced by The Design Manual for Roads and Bridges Volume 6 Section 5 CD 143 'Designing for walking, cycling and horse-riding' which includes road crossings which segregate riders, but the Society is working with the manual's revision team to adjust that specification as it has been accepted as overly prescriptive in many circumstances.

The DMRB is a guide for major roads, it does not need to be and should not be applied to every road. Highway authorities may act at their discretion on non-trunk roads. If certainty is required, a non-standard crossing may be installed by seeking consent for variation from the Department for Transport, but consent may not be necessary except on a trunk road.

The BHS emphasises the following points:

- Rider-operated controls on a crossing should minimise waiting time as far as possible and may need to be set back from the kerb to reduce the wait.
- The required time at red for a crossing will depend on the width of the road being crossed. Walking speed of a horse is between 2 and 4mph, similar to a human, plus the horse's response-to-aids time as well as the human's response-to-signal, so maybe two seconds to add. A rider is likely to be waiting further from the kerb than a pedestrian, so the extra two or three metres must be included in the length of ground to cover.
- Waiting pens/corrals are not always necessary and should be considered by site, dependent on speed of road traffic and incidence of multiple users waiting to cross.
- Fencing around waiting areas at a crossing in rural areas is likely to only be necessary if there is a drop or some other hazard beyond it.
- Waiting in the middle of a dual carriageway should be avoided. The centre of the dual carriageway is a very hostile environment which most horses and riders will find disturbing and where it may be too challenging to reach for a user-control or wait for lights to change. Traffic should be halted on both carriageways to allow a rider to complete the crossing without pausing, whether both carriageways at once or by 'call forwarding' so the far carriageway comes to halt before the rider reaches it. It is also recommended that traffic on the first carriageway is not released until after the rider has left the central reservation.
- TAL 03/03 (archived guidance) stated 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 so leaving equestrians at risk or obstructed by motor traffic.

- The Society has seen no evidence of problems arising while mixed groups wait at crossings. Such circumstances are rare as peak use for pedestrians and cyclists is unlikely to coincide with use by riders.

Examples of non-standard light-controlled crossings

As stated under Light-controlled crossings, a 'standard' light-controlled crossing inclusive of horse riders comprises two adjacent crossings, one pedestrian-cyclist, one horse-rider. The BHS makes the case above that this is unnecessary at most sites and a single crossing for all users is adequate. The following are examples where a combined single crossing is installed.

- A1307 Babraham, Cambridgeshire – pedestrian-cyclist crossing with additional control at rider height, set back from the road and partial aggregate-rubbercrumb surface 52.140149, 0.202662, streetview
- Govier Way, Severn Beach, Bristol – foot-cycle crossings modified with addition of set back higher control for riders at 1 streetview and 2 streetview.
- Hall Road, Wouldham, Kent – non-segregated light controlled crossing with additional rider height control boxes 51.344800, 0.45677246 streetview
- A26 Isle of Man, Glen Darragh Road, Glen Vine – pedestrian-cyclist crossing with additional control at rider height, set back from the road 54.174440, -4.557071

The following have dual crossings but do not meet the DMRB standard because of lack of space.

- A322 Guildford Road, Bisley, Surrey 51.3206488,-0.6303049 streetview
- A405 Bricket Wood, Herts 51.7073674,-0.3808824 streetview

Warning signs

Warning signs to motorists of horses on the road (DfT P550.1) on the approach to a crossing should be considered. These are particularly useful where sightlines are poor for the crossing, or a light-controlled crossing is not appropriate because of resistance to reducing the speed limit to the required level for a light-controlled crossing.

User-responsive lit or flashing warning signs which are activated by the presence of equestrians can be highly advantageous in alerting motorists and avoid 'sign fatigue'. Such signs are activated by equestrians on approaching the road by a sensor, Bluetooth signal from an app or touch. Rather than the 'button' call of light-controlled crossings, which requires very precise operation, probably at standstill, a much broader mechanism is preferrable for riders, for example a 'wand' on top of the control box which can be touched at while moving at arm's length or by a whip. The control and signs must be set

back far enough that the signs are activated to alert motorists so they have time to slow before reaching the crossing or section of road where equestrians are present. This must, of course, also coincide with the equestrian reaching it.

Joining a road

Bridleways or byways ending at a main road should not have a gate within several metres of the road edge, partly to ensure there is space well off the road for equestrians to wait, and partly so that equestrians are not negotiating a gate while at risk from motor traffic close by.

A gate is a hazardous manoeuvre for a rider, even when the gate is well-maintained and sited, and sadly, many roadside gates are far from well-maintained or positioned with flat level ground, no overhead hazards and plenty of manoeuvring space. Forcing a rider to dismount is not the solution as a rider has less control on the ground and is at increased risk during mounting or dismounting, even if mounting blocks are provided.

A driver of a horsedrawn vehicle requires one person to be on foot to open the gate with space for horse and vehicle to wait so a byway meeting a road will need 6 metres between the road edge and any gate.

Sightlines

It is sometimes possible to improve the crossing point through clearing vegetation to increase sightlines and provide sufficient space for horses to wait away from the kerb or surfaced carriageway edge. A rider's sightline is greater than a pedestrian in the same position because of their additional height. This fact is often not taken into account and adequacy of sightline is based on pedestrian height. Standard sightline recommendations for a rider are generally higher than for a pedestrian as taking account of the additional response time for horse-to-rider, not just rider-to-traffic but this may be mitigated by height, the recommendations do not appear to be evidence-based.

Signs in the verge or footway can obstruct equestrians' sightlines, because riders and drivers of horse-drawn vehicles are higher than a pedestrian or cyclist and not considered. Where possible, signs should be avoided within sightlines at an equestrian's height (1.8-2.8m driving, 2.25-2.7m riding), which may also help drivers of some goods vehicles to see the equestrians.

Design of a new crossing should ensure sufficient land is available for signs and other street furniture without affecting sightlines of riders.

Corrals or staggered barriers

A corral — a square or rectangle fenced with post and rail, with openings to enter and leave which are opposite or staggered — is not usually necessary where a bridleway or byway meets a road, although in some environments they can help horses and equestrians feel safer.

Corrals should provide adequate space for a horse and rider to circle, which they may need to do to maintain control of a restless horse while waiting to cross.

A corral must also provide for at least two and preferably three horses to wait so ideally 5 metres by 4 to 5 metres. Smaller corrals may be too restrictive for multiple horses to wait or to circle while waiting but much depends on the environment and can only be assessed by site.

Importantly, such structures adjacent to the road can influence the behaviour of motorists by appearing to narrow the carriageway and therefore reduce speed. For this purpose, fencing across the verge only (not in front or behind the bridleway user) can reduce the space needed as riders can still utilise the last part of the bridleway to circle or wait.

Obstructions and barriers

Structures in the verge may remove the potential for the verge to be used by riders as a refuge while waiting to cross, particularly if there is a group of riders. Cutting grips in the verge for drainage is also a hazard, particularly as they may not be visible. Reduced cutting regimes mean that verges become overgrown and cannot be used as a refuge.

Road safety barriers (e.g. Armco) are a common obstruction of the points where equestrian routes cross roads. They force equestrians along the road rather than being able to cross directly. Such barriers should always have gaps with rounded edges adequate for a horse to pass through at or close to the line of the crossing to avoid the need to use the verge, which is probably hazardous with litter and drainage channels, as well as being alongside heavy traffic. The gap will need to be at least 1.8m for horse-drawn carriages, 1.5m for ridden or led horses. In certain circumstances, depending on the site, a lesser width may be agreed by the British Horse Society for a byway if appropriate, see BHS Advice on Vehicle Barriers www.bhs.org.uk/accessadvice.

Trunk roads and dual carriageways

Structures and design of trunk roads are subject to Department of Transport prescriptions. These are mainly provided in the Design Manual for Roads and Bridges (DMRB). While local roads do not have to comply with the DMRB, it is commonly used as a guide and may still contain helpful information with regard to equestrians although

some of the standards are unnecessarily high for non-trunk roads. Volume 6 Part 3 and 5 are likely to be of most interest.

For bridges and underpasses, see BHS Advice on Bridges, and on Dimensions for Width, Area and Height respectively on www.bhs.org.uk/accessadvice.

At-grade crossings of dual carriageways are difficult and sometimes impossible for many horses. Road designers or others involved may consider crossing easier because those crossing are only negotiating traffic from one direction at a time. However, unlike cyclists or pedestrians, equestrians may find it too challenging to wait on a central reservation; particularly if there has already been a wait to cross the first carriageway, and long waits are commonplace on many dual carriageways. The high noise level and strong air currents from passing vehicles create a hostile environment which most horses and riders will find disturbing and where it may be too challenging to reach for a user-control or wait for lights to change. Traffic should be halted on both carriageways to allow a rider to complete the crossing without pausing, whether both carriageways at once or by 'call forwarding' so the far carriageway comes to halt before the rider reaches it. It is also recommended that traffic on the first carriageway is not released until after the rider has left the central reservation.

On single carriageways traffic will commonly be held behind slower vehicles, creating gaps between vehicles long enough for equestrians to cross, except on roads where traffic is so dense it forms a continuous stream. On busy dual carriageways, gaps tend to occur only when a lorry is overtaking slowly, holding faster traffic behind it, and creating a gap ahead. This may be infrequent, resulting in continuous traffic and waits of several minutes for a gap.

The preferred means of crossing a dual carriageway is by an underpass or overbridge. Ideally, the provision of underpasses where the road is on embankment and overbridges when it is in cutting would minimise visual impact and the length of ramps. Special factors which will have to be considered include high water table and high load routes, plus environmental impact of structures.

An underpass of sufficient height where a road is not embanked is often impractical without incurring drainage problems. Even if the depth below the road is available, the length of ramp to comply with the 5% gradient required for cycles or mobility vehicles could be difficult to accommodate. Where an underpass is not practical, an overbridge is the next choice, however, this too is often impractical because of the required height of the bridge and the land required for ramps.

Where bridleways, byways and minor roads are diverted to a bridge or underpass, provision should be made alongside the carriageway as far from the traffic as possible, with screening for noise reduction.

Where an underpass or bridge is not practical, a light-controlled crossing at-grade should be considered.

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