BRITISH STANDARD

Specification for cattle grids

ICS 65.040.10

Publishing and copyright information

ISBN 0 580 48108 5

The following BSI references relate to the work on this standard:
Committee reference B/201
Draft for comment 05/30144001 DC

Publication history

First published, March 1966
Second edition, December 1973
Third edition, January 1992
Fourth edition, April 2006

Amendments issued since publication

Amd. no.	Date	Text affected

Contents

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 17 and a back cover.

Foreword

Publishing information

This British Standard was published by BSI and came into effect on 28 April 2006. It was prepared by Technical Committee B/201, *Fences and gates*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS 4008:1991, which is withdrawn.

Information about this document

This revision updates the standard in line with changes to other standards and legislation and clarifies some aspects of the standard.

The factors to be considered before it is decided to use a cattle grid for the containment of animals are so diverse and the variations available so numerous that this document specifies only the fundamental requirements for a cattle grid and contains advice on associated topics in Annex A. The associated fencing and alternative access are essential to the successful operation of a cattle grid but requirements will vary with location, frequency of use and stock to be contained and recommendations are contained in the Annex.

Maintenance is a vital factor in the success of a cattle grid and some advice is given.

If the incentive for escape is great enough, escapes and attempted escapes will occur. The requirements of this document are aimed at limiting both the occurrence and consequences of escape or attempted escape.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

1 Scope

This British Standard specifies requirements for cattle grids suitable for the containment of stock whilst permitting the passage of pneumatic tyred vehicles. This standard covers grids suitable for containment of cattle, sheep, deer, goats and pigs; and in certain circumstances, suitable for the containment of horses. Annex A gives recommendations on the use, location, design, construction and maintenance of cattle grids.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 187, *Specification for calcium silicate (sandlime and flintlime) bricks*

BS 873 (all parts), *Road traffic signs and internally illuminated bollards*

BS 1070, *Specification for black paint (tar-based)*

BS 1722 (all parts), *Fences*

BS 3416, *Specification for bitumen-based coatings for cold application, suitable for use in contact with potable water*

BS 3921, *Specification for clay bricks*

BS 4729, *Specification for dimensions of bricks of special shapes and sizes*

BS 4921, *Specification for sherardized coatings on iron or steel*

BS 5328 (all parts), *Concrete*

BS 5502-22, *Buildings and structures for agriculture – Code of practice for design, construction and loading*

BS 5628 (all parts), *Code of practice for use of masonry*

BS 5709, *Gaps, gates and stiles – Specification*

BS 6073 (all parts), *Precast concrete masonry units*

BS 6457, *Specification for reconstructed stone masonry units*

BS 8110 (all parts), *Structural use of concrete*

BS 8118-1, *Structural use of aluminium – Code of practice for design*

BS 8118-2, *Structural use of aluminium – Specification for materials, workmanship and protection*

BS EN 10025 (all parts), *Hot rolled products of structural steels*

BS EN 10143, *Continuously hot-dip metal coated steel sheet and strip – Tolerances on dimensions and shape*

BS EN 10240, *Internal and/or external protective coatings for steel tubes – Specification for hot dip galvanized coatings applied in automatic plants*

BS EN ISO 1461, *Hot dip galvanized coatings on fabricated iron and steel articles – Specifications and test methods*

BD 37/01, *Design manual for roads and bridges: Volume 1 – Loads for Highway Bridges*

NOTE BD 37/01 is available from The Highways Agency, Buckingham Palace Road, London, SW1W 9HA.

3 Terms and definitions

For the purposes of this British Standard, the following terms and definitions apply.

3.1 cattle grid
device, set in a roadway, consisting of a number of transverse members supported over a pit; it forms a barrier to stock but provides access for vehicles

NOTE Guard fences and by-pass facilities if provided form part of the grid.

3.2 transverse members
series of members set at right angles to the road to provide a running surface

3.3 pit
cavity formed below the transverse members

3.4 stock
animals to be contained within a boundary of which the cattle grid forms a part

3.5 side walls
walls at the edge of the pit parallel to the road

3.6 end walls
walls at the edge of the pit at right angles to the road

3.7 intermediate supports
walls or beams supporting the transverse members, at right angles to them

3.8 guard fence
barriers associated with the cattle grid to prevent encroachment by animals

3.9 by-pass facilities
alternative means of passage

4 Animal welfare

4.1 General

The design, location and construction of the cattle grid shall, as a minimum, provide for the welfare of the stock being contained, small wild animals and other animals using the by-pass facility.

4.2 Small animal ramps

4.2.1 Location

Ramps to aid the escape of small animals shall be provided at a minimum to one but preferably to two corners of the pit, positioned to exit the pit on the side away from stock containment. Ramps shall be between 150 mm and 200 mm wide at a slope not exceeding 1 in 2 parallel to the transverse members. The surface of ramps shall not be smooth.

4.2.2 Access

Where the pit is divided into compartments by intermediate support walls, holes at least 150 mm diameter shall be formed to permit access to the ramps from all compartments.

5 Siting

5.1 General

Cattle grids shall not be sited within 18 m of a junction. The approach width shall be adequate for anticipated manoeuvres.

NOTE Further guidance and recommendations on siting can be found in ***A.4****.*

5.2 Gradients

Cattle grids shall be sited so that their top surface has a transverse gradient flatter than 1 in 40.

NOTE It is strongly recommended that the longitudinal gradient is flatter than 1 in 20. However, in hilly areas where a gradient below 1 in 20 is not possible, grids might still be acceptable. In such cases, their gradient should follow that road plane in which they are situated and particular consideration should be given to the skid resistance of the grid.

5.3 Visibility

Cattle grids shall be sited to be clearly visible to approaching traffic.

6 Materials

6.1 General

Materials not covered by a British Standard shall be used in accordance with the manufacturer's recommendations.

NOTE Further guidance and recommendations on materials can be found in ***A.5****.*

6.2 Safety

The design and layout of a cattle grid shall provide for the safety of all legitimate users of the route.

All materials, surfaces and fittings that under normal operations are likely to come into contact with persons and/or livestock shall be free from projections, sharp edges or perforations that could cause damage or injury.

6.3 Toxicity

All materials used, including coatings and preservatives, shall be non-toxic to humans, animals and crops.

6.4 Concrete

Concrete shall be selected and used in accordance with BS 5328 and BS 8110 to the appropriate exposure category for the location.

NOTE In general, the environment can be classified as moderate, unless the grid is located in an area that experiences severe conditions, e.g. in certain locations the road will be subject to de-icing salts.

6.5 Masonry

Masonry when used in structural applications shall comply with BS 5628.

Clay and calcium silicate bricks shall be selected for strength, water absorbency and durability in accordance with BS 3921 and BS 187 respectively. Special shaped clay bricks shall comply with BS 4729.

Precast concrete masonry units shall be selected for compressive strength, density and other requirements according to BS 6073.

Reconstructed stone, cast stone and natural stone masonry units shall be selected in accordance with BS 6457.

6.6 Aluminium

Aluminium for structural use shall comply with BS 8118-1 and BS 8118-2.

6.7 Steel

6.7.1 General

Steel for structural use shall comply with BS EN 10025.

NOTE Where steel tubes or hollow sections are employed, it is recommended that appropriate dimensions be selected from either BS EN 10210-2 or BS EN 10219-2.

6.7.2 Protection

Steel shall be protected by one of the following treatments or other treatments meeting the design life:

a) continuously hot-dip zinc or zinc alloy coating as specified in BS EN 10143, before fabrication;

b) hot-dip galvanizing as specified in BS EN ISO 1461, or sheradized coating as specified in BS 4921, after fabrication;

NOTE If galvanized tube or hollow section is cut to length or fabricated (e.g. welded) reference is drawn to BS EN ISO 1461 which gives guidance on protection.

c) one works coat of a paint complying with BS 1070 or of a solution complying with type 1 of BS 3416;

d) one works coat of red oxide primer or a suitable equivalent;

e) tube or structural hollow section supplied, before fabrication, in the galvanized condition in accordance with BS EN 10240.

NOTE 1 The protective treatments specified in items c) and d) are not intended to serve as finishing coats. The protective coatings specified in c) are only suitable to receive further coatings of the same material.

Any bolts or other fasteners shall be protected against corrosion by galvanizing, sheradizing or other effective means.

NOTE 2 For example BS EN 10143.

Where high strength friction grip bolts are used, the interfaces forming the connection shall not be painted.

6.8 Timber

Timber shall not be used for structural members. When used in a guard fence the timber shall be of the quality specified in the relevant part of BS 1722.

7 Geometry

7.1 Relationship to road profile

The aprons and the grid shall maintain the longitudinal profile of the road.

NOTE The aprons can be used as a transition between the transverse profile of the road and the grid.

7.2 Pit length (distance between end walls)

The pit length for stock except deer shall be at least 2.6 m. For deer this shall be increased to at least 4.0 m.

*NOTE Further guidance and recommendations on pit length can be found in **A.6**.*

7.3 Pit width (distance between side walls)

The pit width shall be determined by the class of road/access but shall not be less than 2.75 m.

NOTE On private roads the need for two-lane traffic is rare, and by restricting the distance between the guard fences to a width that will take the widest (and probably the heaviest) vehicle expected, its wheels are forced to run in one path only under which the supports can be fixed.

7.4 Pit depth (distance from top surface of transverse members to the pit base)

The depth shall be at least 250 mm but not greater than 450 mm.

NOTE From the point of view of animal deterrence, there is no need for a pit to be deeper than 250 mm. This is considered a preferred dimension in terms of animal welfare. The increased depth is to permit drainage falls and/or to accommodate structural members.

7.5 Spacing of transverse members

The members shall be equally spaced along the grid within a tolerance of ±5 mm.

The clear space between members shall be between 130 mm and 150 mm.

The centres of the transverse members shall not exceed the clear space between members plus 80 mm.

NOTE The clear gap specified is important. Not only can a narrow gap be spanned by a big hoof, but the less open a grid appears to an animal the more it is encouraged to attempt a crossing.

A gap of 130 mm allows one to stand on the floor of the pit with one's legs between the members when carrying out maintenance; it also allows freedom of movement for an animal should it get its legs down in an attempt to cross; legs might be wedged in a narrower gap.

Tubes and circular hollow sections and composite sections with a semicircular top spaced to give a gap of 130 mm give a smooth ride to wheeled traffic, including bicycles. With flat-topped sections the gap can be increased to 150 mm without jarring traffic.

7.6 Distance between supports/stiffeners

The minimum clear distance between supports and between stiffeners shall be 300 mm.

NOTE This requirement is to maintain the open appearance of the grid which can be enhanced by making intermediate supports narrower at the top.

8 Design

8.1 General

*NOTE 1 Further guidance and recommendations on design can be found in **A.7**.*

Cattle grids shall have a stated design life. Materials shall comply with Clause **6**.

NOTE 2 For cattle grids on public roads, a design life of 50 years is recommended.

The maintenance required during the design life shall be stated in the design specification.

NOTE 3 Design guidance is contained in BS 449-2 and BS 5400.

8.2 Loadings

Cattle grid design shall be based on the road loadings appropriate to the grid location. To allow for the dynamic effect of loading on a cattle grid, standard loadings shall be increased; loadings given in BD 37/01 by a factor of 2; loadings given in BS 5502-22 for agricultural loads by a factor of 1.5.

The horizontal loading due to traction and braking forces and the horizontal component of factored wheel loads due to the spacing of transverse members shall be considered.

8.3 Deflections

The deflection of individual members shall be limited to that specified in the relevant material code.

Nowhere shall the deflection of the construction as a whole exceed 1:100 between supports.

The horizontal deflection shall be examined as well as vertical deflection.

8.4 Transverse members

*NOTE 1 Further guidance and recommendations on transverse members can be found in **A.8**.*

Transverse members shall be fixed to the support structure.

Transverse members shall be of circular, elliptical, rectangular or composite section. The width of flat running surface of rectangular members shall be at least 30 mm and shall not exceed 40 mm. Where a rectangular section surface exceeds 40 mm width due to structural requirements, a semicircular top of external diameter equal to the width of the member shall be added to form a composite section. The radius of the running surface of any member shall be not less than 20 mm.

The top surface of transverse members shall be in the same plane as the approach aprons and be free of protrusions.

NOTE 2 Rolled steel joists, universal columns or similar sections with sharp edges should not be used because the edges could cause injury to trapped animals.

8.5 Supports and longitudinal stiffeners to transverse members

Supports shall be formed of concrete or of rectangular or composite sections. Stiffeners shall be formed of the same sections as transverse members or of flat plate.

NOTE Rolled steel joists, universal columns or similar sections with sharp edges should not be used because the edges could cause injury to trapped animals.

Supports to transverse members shall be constructed to transmit the loads imposed to the pit base, walls or independent foundations.

Longitudinal stiffeners shall be provided if needed to brace transverse members against each other.

Where intermediate supports are provided their top profile shall be constructed so that there is not more than 40 mm of flat surface exposed; other surfaces, which if horizontal would provide a walking surface, shall be inclined at not less than 45^{o} to the vertical. The top surface of intermediate supports shall be at least 40 mm below the top surface of the transverse members.

To resist the dynamic loading, unless the grid and supports are fabricated as one unit, the supports shall be formed of in situ or precast concrete, suitably reinforced.

8.6 Approach aprons

Approach aprons to both sides of the grid shall be paved with hard surfacing for a minimum distance of 2 m from the pit over the full width of the approach.

NOTE For speeds of over 20 km/h, this dimension should be increased.

Aprons shall be in the same plane as the surface of the grid to avoid shock loadings.

8.7 Drainage

*NOTE Further guidance and recommendations on drainage can be found in **A.9**.*

The design shall include provision of drainage to prevent water collecting in the pit.

8.8 Warning notices and signs

*NOTE Further guidance and recommendations on warning notices and signs can be found in **A.10**.*

On public highways or roads, the hazard warning notices (see diagram 552 of SI 2002 No. 3113: HMSO 1981 Traffic Signs Regulations and General Directions [1]) and maximum loading signs, provided on the approaches to a cattle grid, shall conform to BS 873. On private roads, as a minimum, clearly visible signs warning of the presence of the grid and giving limitations of use shall be provided.

Reflectors shall be fitted to end posts of guard fences and to any by-pass gate.

A notice shall be fixed in a position visible from the grid informing of the location of the grid and of the nearest public telephone.

8.9 Guard fences

NOTE Further guidance and recommendations on guard fences can be found in ***A.11****.*

Guard fences shall be provided on both sides of the tending beyond the pit a minimum of 2.4 m containment end and 0.6 m at the other end (see Figure 1).

8.10 By-pass facilities

NOTE 1 Further guidance and recommendations on by-pass facilities can be found in ***A.12****.*

On public highways or roads the design of a cattle grid shall include by-pass facilities. Where a footpath or bridleway passes through the by-pass facilities, the facilities shall conform to BS 5709.

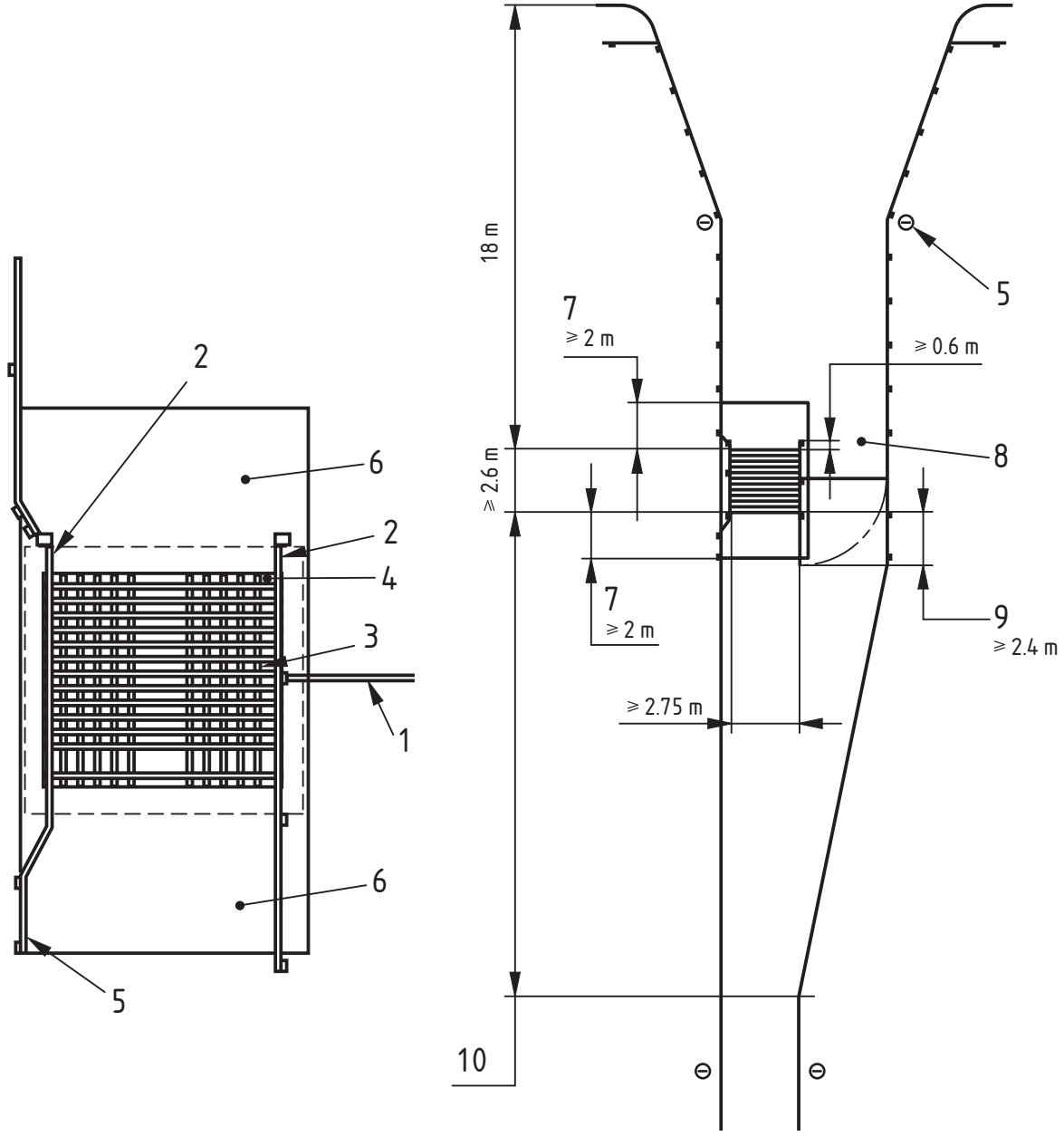
NOTE 2 It is recommended that by-pass facilities be provided on private roads.

Where the by-pass facility consists of a gate adjacent to the cattle grid and no guard fence exists, the hinges of the gate shall be at the cattle grid end.

9 Highways

NOTE Cattle grids on highways are governed by ss. 82 to 90 Highways Act 1980 (in England and Wales) [2] *or ss. 41 to 47* Roads (Scotland) Act 1984 (in Scotland) [3].

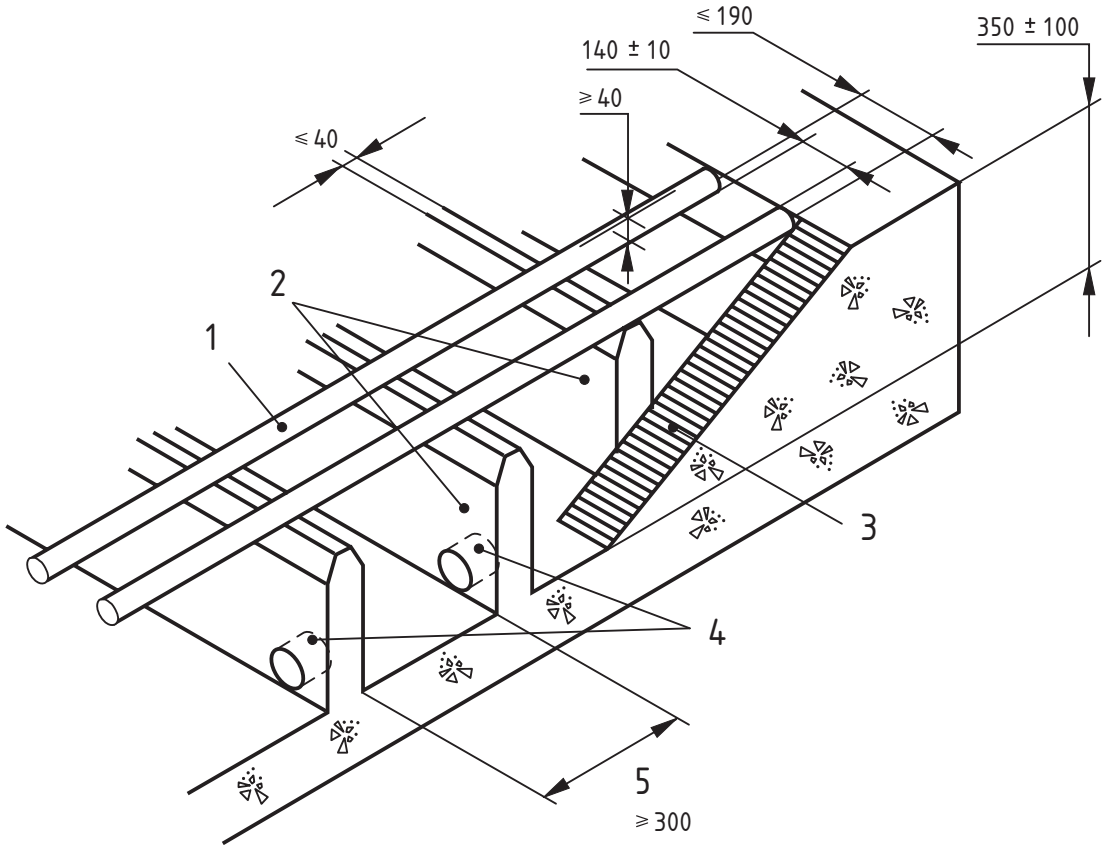
Figure 1 **Typical cattle grid layout**



Key

1 By-pass gate (with hinges at cattle grid end of gate)
2 Guard fence to both sides of cattle grid
3 Access to escape ramps for small animals through holes in support walls
4 Escape ramp for small animals
5 Warning notice and signs
6 Paved aprons
7 Apron
8 By-pass route for wide loads, heavy vehicles, pedestrians and livestock
9 Stock side
10 To suit largest vehicles

Figure 2 **Typical detail of cattle grid**



Key

1 Transverse members
2 Intermediate supports
3 Escape ramp for small animals
4 Holes for drainage and animal escape
5 300 min. between supports/stiffeners

Annex A (informative) Recommendations on the use, location, design, construction and maintenance of cattle grids

A.1 General

The following recommendations represent good practice for cattle grids. Figure 1 and Figure 2 indicate typical cattle grid layout and detail.

A.2 Stock suitability

Stock has in the main been successfully contained by cattle grids. These are cloven hoofed animals commonly farmed. More exotic species, e.g. llama, alpaca, reindeer, occasionally kept for their produce or commercial attractiveness, can also be contained by cattle grids.

NOTE Incentive plays a big part in escape. If the urge is strong enough, be it maternal, sexual, from fear or for food, animals will attempt to cross grids however well they are designed, and injuries can occur. Occasional escapes are bound to happen, but attention to certain details in design should keep them to a minimum.

Cattle grids are not the ideal method of containing horses because of their temperament and anatomy.

A.3 Animal welfare

The location and nature of by-pass facilities and guard fences are vital to the welfare of animals being driven past the grid, horses and ponies being ridden past the grid as well as of the animals contained.

The geometry recommended has been carefully considered for general use but special provisions might be required if one particular type of stock is involved.

The responsibility for animals straying or lying on or at the side of the highway or road lies with their keepers (Section 155 of the Highways Act 1980 [2], Section 98 of the Roads (Scotland) Act 1984 [3] and the Animals Act 1971 [4]). This does not apply to highways or roads passing over common, waste or unenclosed land.

A.4 Siting

Attention is drawn to Sections 82 to 88 of the Highways Act 1980 [2] and Sections 41 to 47 of the Roads (Scotland) Act 1984 [3] concerning provision and removal of cattle grids, and the supersession of gates by cattle grids.

Cattle grids should be provided on major trafficked roads only where other alternatives have been fully investigated and found unsuitable.

On new roads, consideration should be given to the provision of accommodation crossings or underpasses where regular passage of domestic or wild animals such as ponies or deer across the highway or road route exists. On the boundaries to common land, partial fencing of an environmentally sympathetic design should be considered as a means of avoiding numerous cattle grids at frontage accesses to the highway or road or extensive fencing of the highway or road boundary.

Cattle grids should be placed on straight sections of road. A location on bends should be avoided due to the potential skidding of vehicles on the grid members. Consideration should also be given to the visual impact on the landscape of cattle grids when considering their location on the highway. Cattle grids can be hazardous to pedal cycles and motor cycles, and should therefore be designed to be clearly visible on the approaches.

As grids are liable to create a noise when traversed by traffic they should be sited remote from habitation.

NOTE The ability to create a noise can be advantageous if used as part of an overall security regime.

A.5 Materials

A.5.1 General

The choice of materials together with the grid design should ensure minimum maintenance. The durability of some materials might be less than the grid design life, guidance should be sought from the manufacturer or supplier and suitable maintenance procedures established.

A.5.2 Timber

Timber is not to be used for structural components (see **6.8**) but is often used for guard fences, gates and ancillary components.

The timber quality and methods of preservation should be selected from the appropriate part of BS 1722 and from BS 5589 (service life 20 years or 40 years, as appropriate). Creosote should not be used.

Animals should not be allowed access to timber treated with a copper/chromalin/organic preservative before:

a) 7 days have elapsed after date of treatment; and

b) the timber has been hosed down with clean water to remove surface deposits.

A.5.3 Material interfaces

A.5.3.1 Metals in contact with preserved timber

Precautions should be taken to avoid contact between uncoated aluminium and timber treated with a preservative containing copper, e.g. isolating the area of contact with a suitable tape or bituminous layer.

A.5.3.2 Metals in contact with cement and concrete

Both aluminium and zinc are subject to attack by alkaline solutions and by fresh workable concrete. The attack by concrete is reduced and might cease altogether after it has hardened and remains dry. If the concrete becomes damp, the attack might recommence.

A.5.3.3 Metals in contact with one another

For any two metals in contact, the metal uppermost in the electrochemical series corrodes. The higher and the further apart the metals are in this series, the greater the corrosion.

To prevent corrosion, the contact surfaces of both metals should be painted, or that of the metal lower in the list, never that of the higher metal alone, as in this case there would be extreme current density on a small area should any small holes occur in the paint layer.

If galvanized or sheradized mild steel or stainless steel fixings are used with galvanized mild steel, painting is not necessary.

A.6 Determined stock

Whilst for full compliance a 2.6 m grid (4.0 m for deer) is necessary, it is not claimed that grids shorter than this will necessarily be unsuccessful. Much depends on the incentive to escape and the type of stock kept. Thus 2.15 m grids might keep in contented cattle where food is plentiful and nothing more tempting can be seen on the other side of the grid; on the other hand, grids of any length often fail with hill sheep. So in certain cases a derogation to a shorter length, if clearly stated as such, might be appropriate.

A.7 Maintenance

Maintenance is essential to the proper function of a cattle grid and achievement of its design life.

All structural members should be checked regularly for corrosion, wear and deformation and replaced where necessary. Fixings should be checked and tightened to maintain integrity and reduce noise nuisance.

Where aluminium is used externally in contact with concrete it should be anodized or suitably protected.

Where a lack of maintenance is a likelihood and where vibration could cause the loosening of structural fastenings, consideration at the design stage should be given to non-loosening connections. The pit should be kept clear of weeds, leaves, rubbish and debris because any material present on the pit floor encourages stock to attempt a crossing.

Guard fencing, gates and ancillary equipment should be inspected and maintained regularly to ensure their proper function.

All signs and notices should be inspected to ensure that they remain visible and readable.

A.8 Fixings

It is recommended that the design allows individual members or groups of members to be removed for cleaning or for the release of trapped animals. In the latter case it is recommended that the removal of these members can be done quickly by cutting if necessary. Precautions should be taken against vandalism when considering the fixings.

A.9 Drainage

In free-draining soils adequate weep holes should be provided in side and end walls.

Where soils are not free draining, positive drainage should be provided and the base of the pit should slope to this drain.

Where solid intermediate support walls are provided, each compartment should be drained by way of weep holes or by making provision for drainage through the walls. Drain entrances should be protected to prevent small animals attempting to use them as routes for escape. Water from the approach roads and aprons should be intercepted and prevented from entering the pit.

A.10 Warning notices and signs

Consideration should be given to providing special warning signs for cyclists and horse riders where their regular passage is anticipated or where a bridleway or cycle track passes adjacent to the cattle grid.

Consideration should be given to the use of special road markings/ textures and signs.

A.11 Guard fences

It has been assumed in this standard that protection will be provided by fences in accordance with BS 1722. Where for aesthetic reasons other barriers are provided, e.g. dry stone walling, the requirements and recommendations for fences generally apply. The construction of such barriers should not present a hazard to stock or humans.

Stockproof fences should be provided on both sides of the grid (see Figure 1) to prevent stock or other animals approaching the grid from the other side.

Fences for deer should be at least 2.1 m high. This can be achieved by the use of a jump wire.

A.12 By-pass facilities

It is essential to provide a by-pass gate alongside the grid where the following traffic has to be able to pass:

- livestock;
- tracked or other vehicles with abnormal wheel arrangements;
- extra wide vehicles or those with excessive axle loads;
- ridden or driven horses.

In all other cases, it is desirable to provide by-pass facilities.

Alternative stockproof access should be provided for pedestrians.

Gates should be of a similar height to the guard fence.

By-pass gates should give a minimum of 3.0 m clear opening and the approaches to the gate should be sufficient to allow the largest vehicle easy access.

By-pass gates should be positioned at the middle of the grid and arranged to hinge on the grid side.

Where horses with riders are likely to use the gate, provision should be made to allow the gate to be opened, swung and closed without dismounting, in accordance with BS 5709.

Separate traffic gating should be provided to close off the grid if necessary.

Any tall posts, for example those carrying signs for motorists, should not be near the catch end of the gate as it prevents a horse swinging its head and neck round while the gate is opened or closed from horseback.

Bibliography

Standards publications

For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 449-2:1969, *Specification for the use of structural steel in building – Metric units*

BS 5400 (all parts), *Steel, concrete and composite bridges*

BS EN 10210-2:1997, *Hot finished structural hollow sections of non-alloy and fine grain structural steels – Tolerances, dimensions and sectional properties*

BS EN 10219-2:1997, *Cold formed welded structural sections of non-alloy and fine grain steels – Tolerances, dimensions and sectional properties*

Non standards publications

[1] GREAT BRITAIN. Traffic Signs Regulations and General Directions 2002. London: The Stationery Office.

[2] GREAT BRITAIN. Highways Act 1980. London: The Stationery Office.

[3] GREAT BRITAIN. Roads (Scotland) Act 1984. London: The Stationery Office.

[4] GREAT BRITAIN. Animals Act 1971. London: The Stationery Office.

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