
**VOLUME 2 HIGHWAY
STRUCTURES: DESIGN
(SUBSTRUCTURES
AND SPECIAL
STRUCTURES),
MATERIALS**

SECTION 2 SPECIAL STRUCTURES

PART 2

BA 48/93

**PEDESTRIAN PROTECTION AT HEAD
WALLS, WING WALLS AND RETAINING
WALLS**

SUMMARY

This Advice Note gives guidance on the need to consider the provision of pedestrian protection at structures.

INSTRUCTIONS FOR USE

1. Remove contents pages for Volume 2 dated June 1993 and for Volume 3 dated July 1993 and insert new contents pages for Volumes 2 and 3 dated December 1993.
2. Remove from Volume 3 BE 28, which is superseded by BA 48/93 and archive as appropriate.
3. Insert BA 48/93 into Volume 2, Section 2.
4. Archive this sheet as appropriate.



THE HIGHWAYS AGENCY

BA 48/93



THE SCOTTISH OFFICE DEVELOPMENT DEPARTMENT



THE WELSH OFFICE
Y SWYDDFA GYMREIG



THE DEPARTMENT OF THE ENVIRONMENT
FOR NORTHERN IRELAND

Pedestrian Protection at Head Walls, Wing Walls and Retaining Walls

Summary: This Advice Note gives guidance on the need to consider the provision of pedestrian protection at structures.

REGISTRATION OF AMENDMENTS

Amend No	Page No	Signature & Date of incorporation of amendments	Amend No	Page No	Signature & Date of incorporation of amendments

SUPERSEDED

Registration of Amendments

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**PEDESTRIAN PROTECTION AT
HEAD WALLS, WING WALLS AND
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1. INTRODUCTION

General

1.1 Within the highway boundary, retaining walls often support the slope of a cutting or embankment. Also there are head and wing walls at underbridges, underpasses, subways and culverts. On motorways and many rural all-purpose trunk roads, pedestrians are not normally expected to be present near such walls. Occasionally, however, drivers and passengers of broken down or damaged vehicles, maintenance staff, emergency service personnel and others may need to walk near them.

1.2 Where any pedestrian movement might occur within the highway boundary adjacent to any of the structures mentioned above, there is a potential danger of persons falling from the top of the wall or structure, particularly in the hours of darkness and in adverse weather conditions.

1.3 This Advice Note gives guidance on the need to consider this aspect of safety for users of the highway and the risk to the health and safety of any staff likely to be working within the highway boundary. Where it is considered necessary, suitable protective fences or guardrailling should be provided in accordance with the recommendations in Chapter 2.

1.4 This Advice Note supersedes BE 28 (DMRB 3.1) which is hereby withdrawn.

Scope

1.5 This Advice Note is applicable to all new trunk roads and improvements to existing trunk roads.

2. REQUIREMENTS AND IMPLEMENTATION

Requirements

2.1 Where a structure such as a retaining wall, head wall or wing wall presents a vertical or near vertical face 1.5m or more in height and it would be possible for a person to gain access to the upper edge of the structure, a pedestrian restraint system such as a protective fence or guardrail should be installed close to, or on top of the structure.

2.2 Consideration should also be given to installing a pedestrian protective fence or guardrail at walls less than 1.5m high if a particular hazard such as a watercourse or a road is in close proximity to the wall. Where appropriate, the restraint system installation should be extended to include the approaches to the structure or potentially hazardous differences in ground levels.

2.3 The type of pedestrian protective measure to be used will need to be determined locally and be in keeping with any structural, drainage, environmental and aesthetic considerations, which could be pedestrian guardrailing, pedestrian parapet or an appropriate type of boundary fencing.

2.4 Examples of locations where pedestrian protective measures would generally be necessary are shown in Annex A. Details and design requirements of various types of fencing and pedestrian guardrailing can be found in the Highway Construction Details (MCHW 3, Section 1), BS 1722 (Various Parts) and BS 3049.

Implementation

2.5 This Advice Note should be used forthwith on all schemes for the construction, improvement and maintenance of trunk roads, including motorways currently being prepared, providing that, in the opinion of the Overseeing Department, this would not result in significant additional expense or delay progress. Design Organisations should confirm its application to particular schemes with the Overseeing Department.

3. REFERENCES

1. Manual of Contract Documents for Highway Works: Highway Construction Details (MCHW 3, Section 1), HMSO.
2. British Standard BS 1722: Fences (Various Parts)
3. British Standard BS 3049: - Specification for Pedestrian Guardrails (Metal)

SUPERSEDED

4. ENQUIRIES

All technical enquiries or comments on this Advice Note should be sent in writing as appropriate to:

Head of Bridges Engineering Division
The Department of Transport
St Christopher House
Southwark Street
London SE1 0TE

P H DAWE
Head of Bridges Engineering Division

The Deputy Chief Engineer
The Scottish Office Industry Department
Roads Directorate
New St. Andrew's House
Edinburgh EH1 3TG

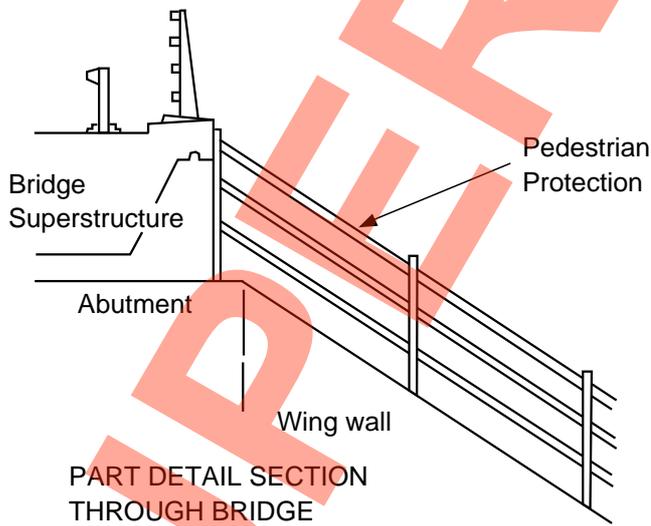
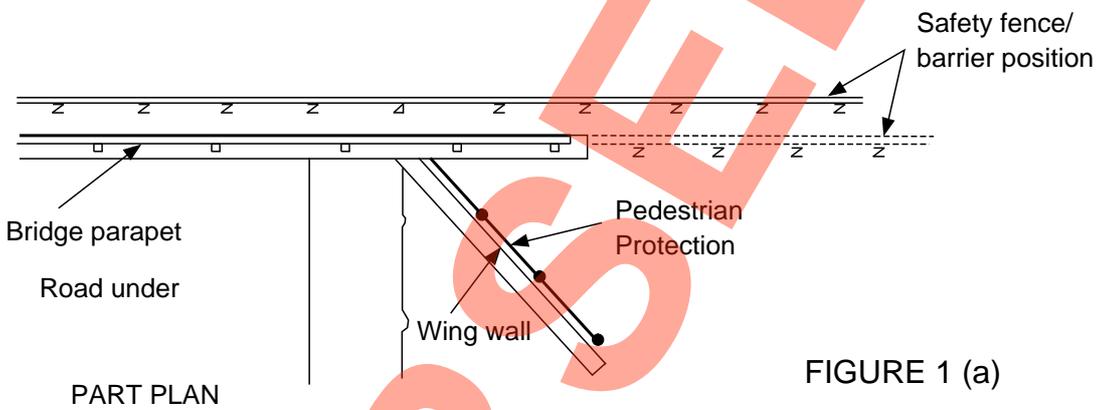
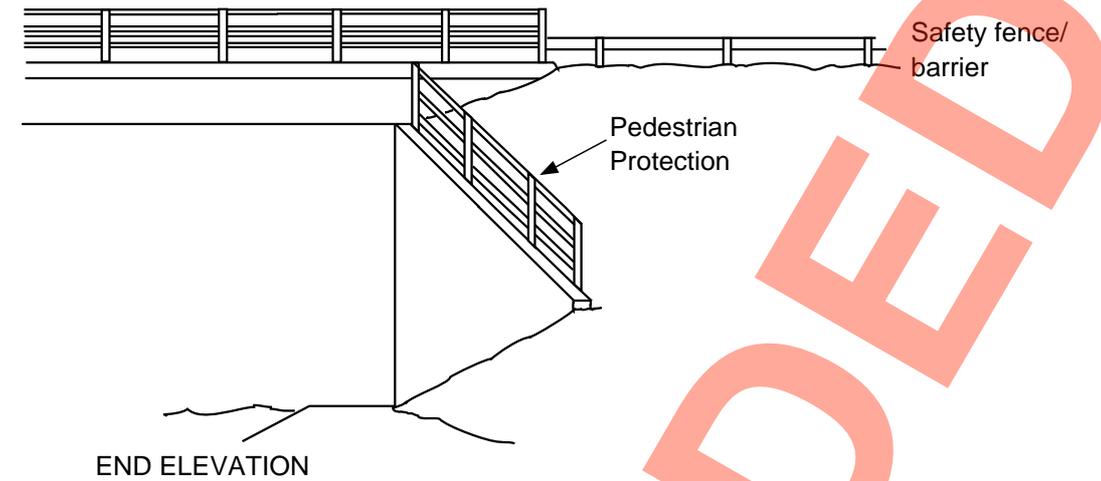
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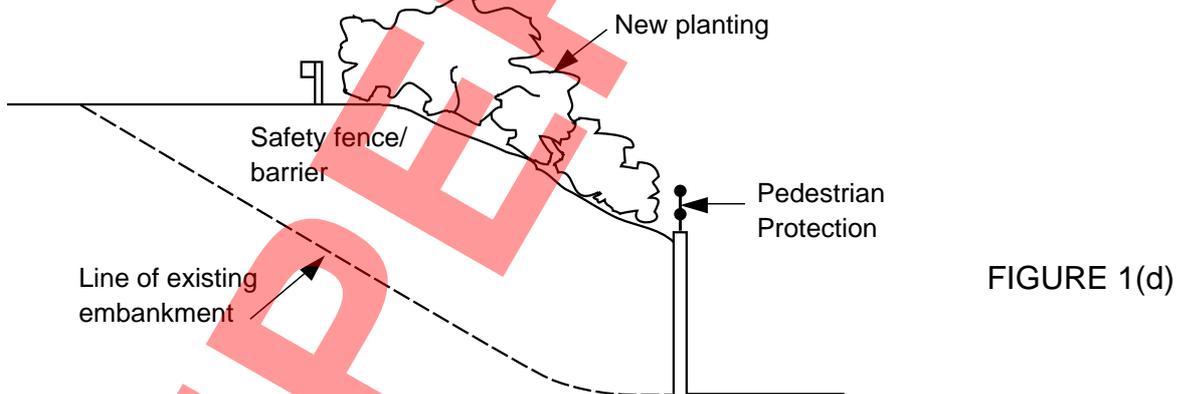
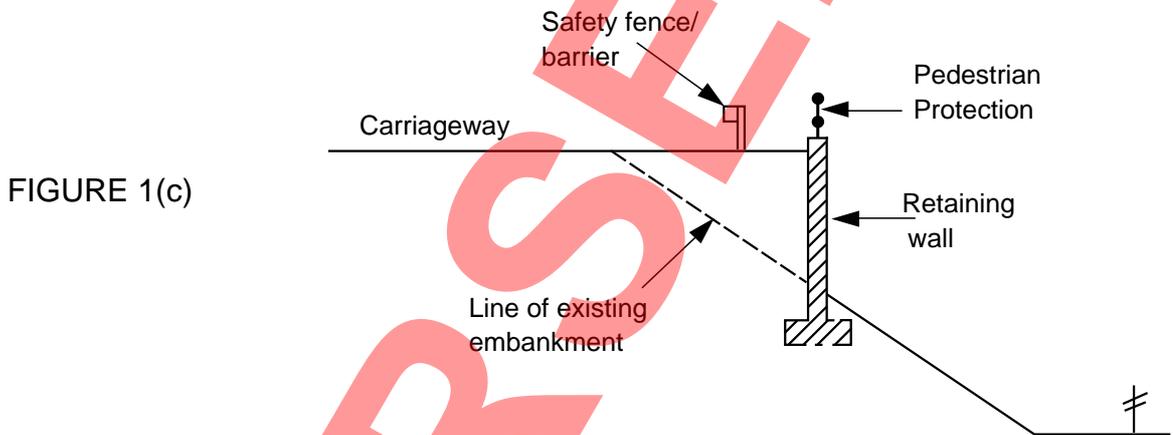
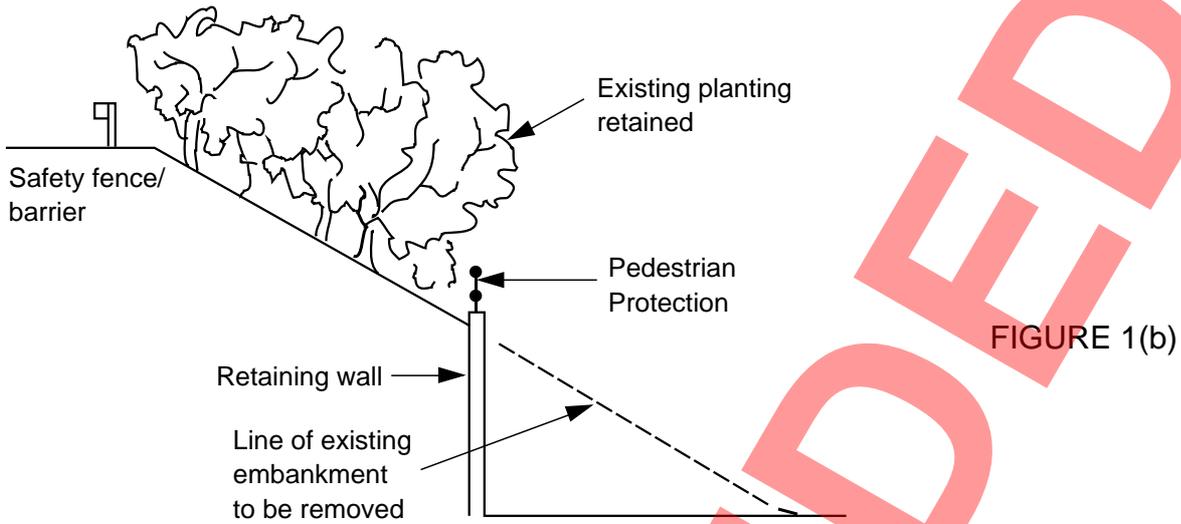
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WING WALLS (N.T.S)

TYPICAL LAYOUTS WHERE PEDESTRIAN PROTECTION
MAY BE REQUIRED



RETAINING WALLS(N.T.S)

TYPICAL LAYOUTS WHERE PEDESTRIAN PROTECTION
MAY BE REQUIRED

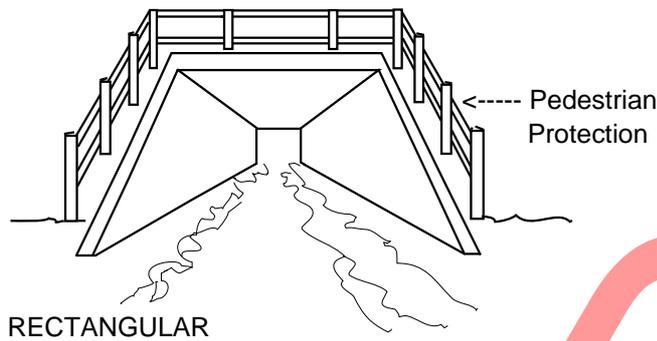


FIGURE 1(e)

RECTANGULAR

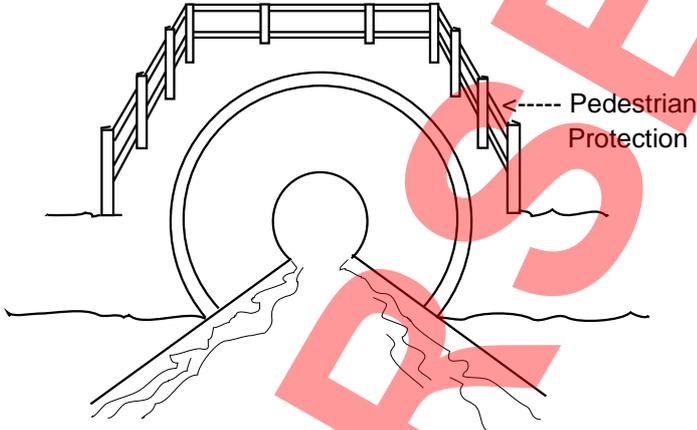
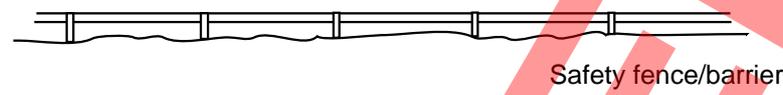
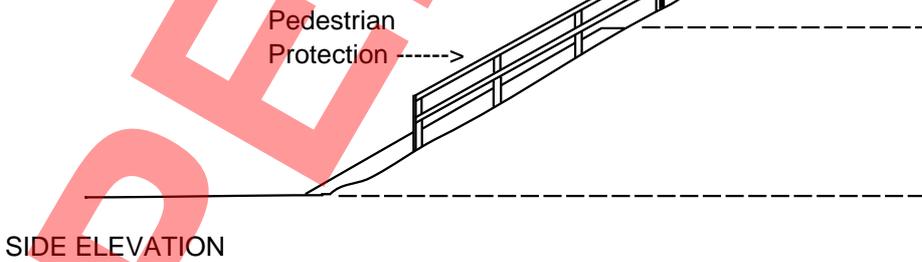


FIGURE 1(f)

CURVED



SIDE ELEVATION

CULVERTS etc. (N.T.S)

TYPICAL LAYOUTS WHERE PEDESTRIAN PROTECTION
MAY BE REQUIRED