Vehicle restraint systems —

Part 4: Development of bridge parapets in the United Kingdom





NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

This is a preview. Click here to purchase the full publication.

Committees responsible for this Published Document

The preparation of this Published Document was entrusted by Technical Committee B/509, Road equipment, to Subcommittee B/509/1, Road restraint systems, upon which the following bodies were represented:

Aluminium Federation Association of Consulting Engineers Association of County Councils Association of Safety Fencing Contractors British Cement Association British In-situ Concrete Paving Association British Precast Concrete Federation Ltd County Surveyors' Society Department of Transport (Highways Agency) Institution of Civil Engineers Motor Industry Research Association National Fencing Training Authority Railtrack Royal Society for the Prevention of Accidents Transport Research Laboratory **UK Steel Association**

This Published Document, having been prepared under the direction of the Sector Committee for Building and Civil Engineering, was published under the authority of the Standards Committee and comes into effect on 15 October 1999

Amendments issued since publication

© BSI 10-1999 The following BSI reference relates to the work on this standard: Committee reference B/509/1	Amd. No.	Date	Comments
© BSI 10-1999			
The following BSI reference			
standard: Committee reference B/509/1			
ISBN 0 580 28228 7			

This is a preview. Click here to purchase the full publication.

Contents

Con	unittees responsible Inside front of	Pag cove
Fore	eword	i
Intro	oduction	
1	Scope	
2	DTp Technical Memorandum BE5	
3	Developments of bridge parapets under BS 6779	
3.1	General	
3.2	Derivation of theoretical design forces	
3.3	Design load safety factors	
4	Development of metal bridge parapets	
4.1	General	
4.2	Development of aluminium alloy parapets	
4.3	Development of steel parapets	
5	Development of concrete based bridge parapets	1
5.1	General	1
5.2	Development of combined metal and concrete parapets	1
5.3	Development of concrete parapets	1
6	Masonry parapets — Brick sandwich concrete reinforced parapets	1
7	Timber parapets	1
Bibl	iography	2
	re 1 — Variation of impact force F with vehicle speed v	
	are 2 — Variation of lateral impact force F with vehicle and parapet crush ance z	
	re 3 — High containment (P6) steel parapet arrangement for full scale act tests — Parapet design concept	
BE5	re 4 — Combined concrete parapet cross-section M40, London (based on in situ group P1)	1
	re 5 — Combined concrete parapet cross-section M5-M6, Midlands Link cast construction)	1
Figure 6 — Combined concrete parapet cross-section: high containment (P6) precast construction		1
Figure 7 — Shaped concrete parapet cross-section: high containment (P6) in situ construction]
	re 8 — Near vertical concrete parapet cross section: high containment (P6) east construction	1
-	re 9 — Brick sandwich reinforced concrete parapet	2
-	re 10 — Timber parapet prepared for Devon County Council	2
-	e 1 — BE5: vehicle containment requirements for bridge parapets	
	e 2 — Vehicle containment requirements for bridge parapets (from BS 6779)	
	e 3 — Vehicle impact tests on aluminium alloy parapets	
	e 4 — Vehicle impact tests on steel parapets	
Table 5 — Design parameters for P6 parapet		
	e 6 — Early design requirements for concrete parapets in BE5 (later	1
	lified after full scale testing – see BS 6779)	1
	e 7 — Vehicle impact tests on concrete parapets	1