2.12 Wall ties
2.13 Concrete infill and grout
2.14 Reinforcing and prestressing steel

3 Masonry properties
3.1 General
3.2 Compressive strength
3.3 Strength of masonry in combined compression and shear
3.4 The tensile strength of masonry
3.5 Stress-strain properties of masonry
3.6 Effects of workmanship on masonry strength

4 Codes of practice for structural masonry
4.1 Codes of practice: general
4.2 The basis and structure of BS 5628: Part 1
4.3 BS 5628: Part 2—reinforced and prestressed masonry
4.4 Description of Eurocode 6 Part 1–1 (ENV 1996–1–1:1995)

5 Design for compressive loading
5.1 Introduction
5.2 Wall and column behaviour under axial load
5.3 Wall and column behaviour under eccentric load
5.4 Slenderness ratio
5.5 Calculation of eccentricity
5.6 Vertical load resistance
5.7 Vertical loading
5.8 Modification factors
5.9 Examples

6 Design for wind loading
6.1 Introduction
6.2 Overall stability
6.3 Theoretical methods for wind load analysis
6.4 Load distribution between unsymmetrically arranged shear walls

7 Lateral load analysis of masonry panels
7.1 General
7.2 Analysis of panels with precompression
7.3 Approximate theory for lateral load analysis of walls subjected to precompression with and without returns

©2004 Taylor & Francis

7.4 Effect of very high precompression
7.5 Lateral load design of panels without precompression

8 Composite action between walls and other elements
8.1 Composite wall-beams
8.2 Interaction between wall panels and frames

9 Design for accidental damage
9.1 Introduction
9.2 Accidental loading
9.3 Likelihood of occurrence of progressive collapse
9.4 Possible methods of design
9.5 Use of ties

10 Reinforced masonry
10.1 Introduction
10.2 Flexural strength
10.3 Shear strength of reinforced masonry
10.4 Deflection of reinforced masonry beams
10.5 Reinforced masonry columns, using BS 5628: Part 2
10.6 Reinforced masonry columns, using ENV 1996–1–1

11 Prestressed masonry
11.1 Introduction
11.2 Methods of prestressing
11.3 Basic theory
11.4 A general flexural theory
11.5 Shear stress
11.6 Deflections
11.7 Loss of prestress

12 Design calculations for a seven-storey dormitory building according to BS 5628
12.1 Introduction
12.2 Basis of design: loadings
12.3 Quality control: partial safety factors
12.4 Calculation of vertical loading on walls
12.5 Wind loading
12.6 Design load
12.7 Design calculation according to EC6 Part 1–1 (ENV 1996–1:1995)
12.8 Design of panel for lateral loading: BS 5628 (limit state)
12.9 Design for accidental damage

©2004 Taylor & Francis