HIGHWAYS & STREETSCENE
HIGHWAYS STRUCTURES

Civic Centre 1
High Street
Huddersfield
HD1 2NE

APPROVAL IN PRINCIPLE FOR DESIGN OF

Plot 18 Private Retaining Wall
Croft Street, Birkenshaw

Structure reference:	**K61210**
Date:	**24/04/2026**
Revision:	**P03**
Status:	**Final**
Prepared by:	**A. Cartlidge**
Checked by:	**M. Chappell**

DOCUMENT CONTROL

Structure title: Plot 18 Private Retaining Wall, Croft Street Birkenshaw

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Document issue record

Issue	Status	Prepared	Date	Checked	Date	Approved	Date
P01	Draft	A. Cartlidge	06/03/2026	M. Chappell	06/03/2026	M. Chappell	06/03/2026
P02	Draft	A. Cartlidge	14/04/2026	M. Chappell	14/04/2026	M. Chappell	14/04/2026
P03	Final	A. Cartlidge	24/04/2026	M. Chappell	24/04/2026	M. Chappell	24/04/2026

PROJECT DETAILS

Name of project: Croft Street, Birkenshaw

Name of Bridge or Structure: Plot 18 Private Retaining Wall

Structure reference no: K61210

Summary:

This Approval in Principle records the criteria for the design of a proposed retaining wall built adjacent to a proposed adoptable highway.

The structure is within 4 yards of a street and is greater than 4 foot 6 inches above the level of the ground at the boundary of the street and is therefore is subject to approval by the local authority under the Highways Act 1980.

Failure of the wall would also affect the safety of the public on the highway and therefore, subject to a formal technical approval.

1. HIGHWAY DETAILS

1.1. Type of highway

1.1.1. Location and OS Map / Grid reference

Location:	Proposed unclassified road.
OS Map:	SE 20352 28438
Grid Ref (X, Y):	420352, 428438

1.2. Design traffic speed

30mph.

1.3. Existing restrictions

None.

2. SITE DETAILS

2.1. Obstacles crossed

None.

3. PROPOSED STRUCTURE

3.1. Description of structure and design working life

The structure is a blockwork gravity retaining wall with brickwork facing. The wall retains private path to a domestic dwelling adjacent to a proposed highway.

The proposed retaining wall will be designed to have a design working life of 120 years, in line with CD 350, Table 7.1 for Design Working Life Category 5 structures.

3.2. Structural type

Gravity retaining wall.

3.3. Foundation type

Spread footing.

3.4. Span arrangements

Maximum design retained height to be 2.0m.

Length 16 m.

3.5. Articulation arrangements

Joints are to be provided within the wall at no greater than 6.0m centres.

3.6. Classes and levels

3.6.1. Consequence class

CC2 to BS EN 1990 Annex B, Table B1 and CD 350, Table 7.2.

3.6.2. Reliability class

RC2 with KFI factor equal to 1.0 in accordance with BS EN 1990 Annex B, Table B2 and CD 350, Table 7.2.

3.6.3. Inspection level

IL2 to BS EN 1990 Annex B, Table B1 and CD 350, Table 7.2.

3.7. Road restraint systems requirements

Not applicable. However, a 1.15m high (min) masonry screen wall will be provided on top of the retaining wall to prevent accidental fall from the top of the retaining wall onto the highway below

3.8. Proposals for water management

The backfill material is to be free draining granular material to allow local build up of ground water to drain around the wall. Weep pipes are also proposed within the wall to alleviate temporary build up of ground water pressures.

3.9. Proposed arrangements for future maintenance and inspection

3.9.1. Traffic management

Traffic management is not required to inspect or maintain the structure.

3.9.2. Arrangements for future maintenance and inspection of structure. Access arrangements to structure.

The structure can be accessed from plot 18 and the footway of the proposed highway.

3.10. Environment and sustainability

A material solution matching that of similar constructions occurring on the development has been adopted to reduce potential waste and requirement for additional contractors to attend the site.

The principal materials used in the construction of this structure are concrete and masonry; both of which can be recycled when the structure comes to the end of its life.

3.11. Durability - Materials and finishes

Item	Material	Finish / Location
Retaining wall base.	Concrete with a designated mix of FND2z in accordance with BS 8500-1.	Concrete finishes to be U1/F1 for buried concrete. Exposure classes, XC2, XD2. Corresponding location on the structure.
Retaining wall stem.	Concrete aggregate blocks conforming to BS EN 771-3.	
Retaining wall facing.	Clay units with F2 S2 resistance conforming to BS EN 771-1.having a design working life of 120 years.	Stainless steel ties to BS EN 845-1 at 450mm vertical and 900mm horizontal centres.

Item	Material	Finish / Location
Backfill Material	Class 6P or 6N selected granular fill in accordance with table 6/1 of Series 600 of the Specification for Highways Works (Volume 1)	
Weep holes.	64mm uPVC square pipe installed at 2m centres.	

3.12. Risks and hazards considered for design, execution, maintenance and demolition. Consultation with and/or agreement from Overseeing Organisation

The Principal Designer is Riva Homes, who has been consulted during the design development process and will continue to be engaged with during the detailed design.

The Designer, Eastwood Consulting Engineers, has identified the following risks and hazards that would not be apparent to an experienced and competent contractor or that require special attention to be managed properly:

- Suitable edge protection should be provided until the construction of the wall/parapet is completed.

3.13. Acceptance of recommendations of the structures Options Report (reference date) to be used in the design and reasons for any proposed changes (including estimated cost of proposed structure). If an Options Report has not been prepared, state the reasons for the selected solution and reasons for rejecting alternatives (including comparative whole life costs with dates of estimates).

Not applicable; private structure.

3.14. Proposed arrangements for construction

3.14.1. **Construction of structure**

The ground is to be excavated to the proposed formation layer.

Blinding is to be cast.

The base is to be formed and cast.

The blockwork stem is to be laid.

The area at the rear of the wall is to be backfilled.

The facing to the wall is to be laid.

The screen wall is to be laid.

The surfacing/finishes at the rear of the wall are to be laid.

3.14.2. **Traffic management**

Not required.

3.14.3. **Service diversions**

Not required.

3.14.4. **Interface with existing structures or other features**

None.

3.15. Deliberate damage and security

The facing of the retaining wall is flush to the screen wall above, preventing climbing of the structure from the footway.

4. DESIGN CRITERIA

4.1. Actions

4.1.1. Permanent actions

All permanent actions as outlined in BS EN 1991-1-1 and associated National Annex including:

- Backfill density = 19.0 kN/m³
- Mass concrete density = 24.0 kN/m³
- Concrete blockwork density = 18 kN/m³.

4.1.2. Snow, Wind and Thermal actions

Snow actions are no more onerous than the applied surcharge in section 4.1.5.

Wind actions to be in accordance with BS EN 1991-1-4.

Thermal – movement joints are to be provided within the wall at no greater than 6.0m centres.

4.1.3. Actions relating to normal traffic under AW regulations and C&U regulations

Not applicable.

4.1.4. Actions relating to General Order traffic under STGO regulations

Not applicable.

4.1.5. Footway or footbridge variable actions

5.0 kN/m^2 to BS 8002:2015 Cl 4.4.1.5 (Table 7).

4.1.6. Actions relating to Special Order traffic, provision for exceptional abnormal indivisible loads including location of vehicle track on deck cross-section

Not applicable.

4.1.7. Accidental actions

Not applicable.

4.1.8. Action during construction

A surcharge of 10 kN/m^2 is considered at the rear of the retaining wall for the construction stage.

The retaining wall is to be backfilled in accordance with the MCHW and surcharge loadings are to be derived based on the requirements of PD 6694-1:2011. Therefore, compaction pressures imposed on the wall during construction do not need to be considered. (PD 6694-1:2011 CL 7.3.3).

4.1.9. **Any special action not covered above**

None.

4.2. Heavy or high load route requirements and arrangements being made to preserve the route, including any provision for future heavier loads or future widening

Not applicable.

4.3. Proposed minimum headroom to be provided

Not applicable.

4.4. Set out measures that will be incorporated into design to minimise maintenance

The structure is constructed of concrete blockwork and brickwork facing both of which require minimal maintenance.

4.5. Authorities consulted and any special conditions required

Kirklees Council.

4.6. Standards and documents listed in the Technical Approval Schedule

TAS dated November 2025 - See appendix A.

Additional relevant DoT standards published since the above edition of the TAS including amendments, are listed as follows:

None.

4.7. Proposed departures from standards listed in 4.6

None.

4.8. Proposed departures from standards concerning methods for dealing with aspects not covered by standards listed in 4.6

The proposed gravity retaining wall will be a private structure and as such its maintenance liability will solely rest with the adjoining land title holder/s.

4.9. Proposed safety critical fixings

None.

5. STRUCTURAL ANALYSIS

5.1. Methods of analysis proposed for superstructure, substructure and foundations

The method of analysis employed is to be BS EN 1997-1:2004 incorporating Corrigendum dated February 2009 and UK National Annex incorporating Corrigendum No 1.

The loads stated in section 4.1 will be applied to the proposed design model shown in section 5.2 and combined in accordance with BS EN 1990. Note, cases with surcharge omitted from the heel of the wall will be considered to give the most onerous combination of loading.

The wall will be checked for overall stability failure mechanisms d, e and f as shown in BS EN 1997-1, Figure 9.2; sliding, toppling and bearing failure respectively. For the overall stability failure mechanisms, the structure will be considered as a whole "rigid body" acting on a stiff formation. At the ultimate limit state, the structure will be checked for the following persistent / transient design situations:

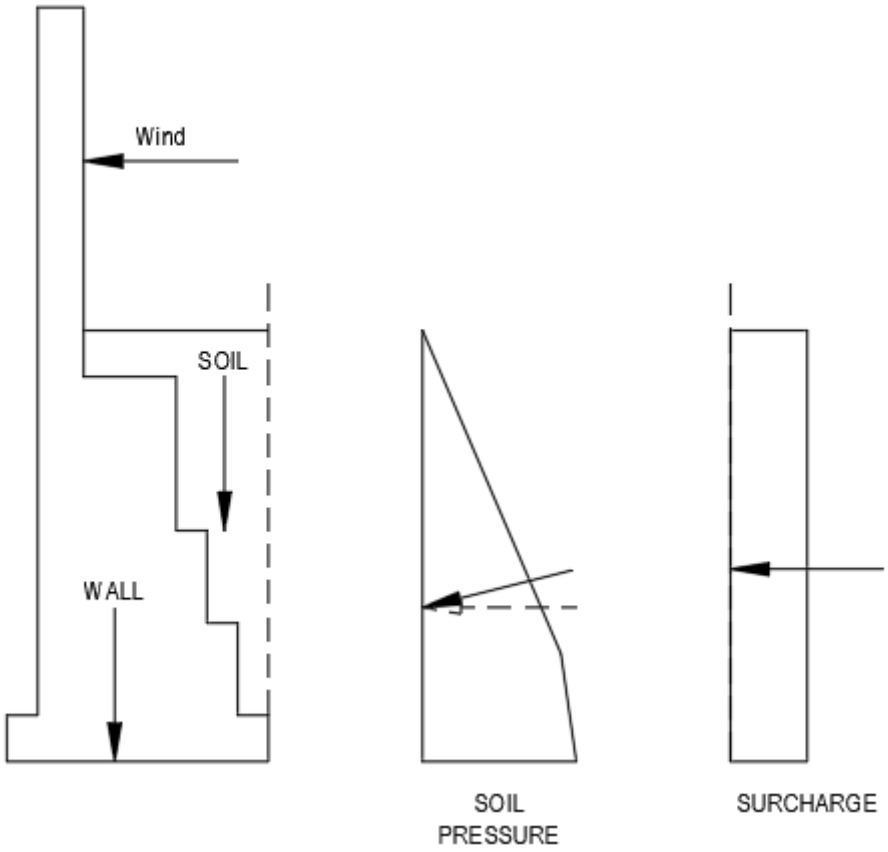
- EQU (Toppling failure)
- STR/GEO – Combination 1 (Sliding / Bearing failure)
- STR/GEO – Combination 2 (Sliding / Bearing failure).

For serviceability limit state, the maximum applied bearing pressure will be limited to the allowable bearing pressure, as determined in the Ground Investigation Report, to limit excessive or long-term deflection.

The design of the masonry stem will be carried out in accordance with BS EN 1996-1.

5.2. Description and diagram of idealised structure to be used for analysis

The wall is to be designed as metre strip, considering the most onerous retained height at each section considered.



5.3. Assumptions intended for calculation of structural element stiffness

Flexural stiffness of elements will be based on plain un-cracked sections.

Soil is assumed to be linear isotropic.

5.4. Proposed range of soil parameters to be used in the design of earth retaining elements

Engineered backfill

Unit weight of soil (γ):	19 kN/m^3
Characteristic effective angle of shearing resistance (φ'):	32.5°
Wall friction (δ):	21.7°
At rest lateral earth pressure coefficient (K_0):	0.463
Active lateral earth pressure coefficient (K_a):	0.496

Passive resistance in front of the retaining wall will not be considered in the stability checks of the wall, to allow for any unplanned excavations which may occur in the adjoining highway in the future.

6. GEOTECHNICAL CONDITIONS

6.1. Acceptance of recommendations of the ground investigation report (references/dates) to be used in the design and reasons for any proposed changes

The recommendations of the report; Phase 2 Geotechnical and Geo-Environmental Site Investigation, Croft Street, Birkenshaw, 48785-ECE-XX-XX-RP-C-0008 are accepted.

6.2. Summary of design for highway structure in the ground investigation report

The ground typically comprises firm sandy CLAY with Sandstone at approximately 3.0m below existing ground level.

The proposed retaining wall formation is to be within the firm clay with an allowable bearing capacity of 100 kN/m^2.

For concrete in contact with natural ground, the chemical test results indicate DS-1 AC-2z sulphate precautions will be required.

6.3. Differential settlement to be allowed for in the design of the structure

The foundation is designed to limit the bearing pressures to the allowable bearing capacity give in the ground investigation. The allowable bearing capacity provides inherent settlement limitation to ensure that differential settlement effects are not significant.

6.4. If the ground investigation report is not yet available, state when the results are expected and list the sources of information used to justify the preliminary choice of foundations

Not applicable.

7. CHECK

7.1. Proposed Category and Design Supervision Level

Category 1

DSL2

7.2. If Category 3, name of proposed Independent Checker

Not applicable.

7.3. Erection proposals or temporary works for which Types S and P Proposals will be required, listing structural parts of the permanent structure affected with reasons

Not applicable.

8. DRAWINGS AND DOCUMENTS

8.1. List of drawings (including numbers) and documents accompanying the submission

8.1.1. Drawings (See appendix B)

Reference	Title
48785-ECE-XX-XX-DR-C-0020	S38 Agreement Plan
48785-ECE-XX-XX-DR-C-0105 Revision P04	Plot 18 Retaining Wall Details

8.1.2. Documents (See appendix C)

Reference	Title
48785-ECE-XX-XX-RP-C-0005	Phase 2 Site Investigation Report

9. THE ABOVE IS SUBMITTED FOR ACCEPTANCE

Design Team Leader

Signed _____

Name A. Cartlidge

Engineering Qualifications MEng CEng MIStructE

Name of Organisation Eastwood Consulting Engineers

Date _____

Check Team Leader

Signed _____

Name M. Chappell

Engineering Qualifications BEng CEng FIStructE FICE

Name of Organisation Eastwood Consulting Engineers

Date _____

10. THE ABOVE IS REJECTED/AGREED SUBJECT TO THE AMENDMENTS AND CONDITIONS SHOWN BELOW

Signed _____

Name **Farhad Khatibi**

Position held **Bridges & Structures Manager**

Engineering Qualifications **BSc (Hons) Civil Eng, MSc**

TAA **Kirklees Council**

Date _____

For and on behalf of Kirklees Council

Scheme title: Croft Street, Birkenshaw
Structure title: Plot 18 Private Retaining Wall

Struc Ref: K61210
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APPENDIX A

LIST OF RELEVANT DESIGN DOCUMENTS

Scheme title: Croft Street, Birkenshaw
Structure title: Plot 18 Private Retaining Wall

Struc Ref: K61210
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TECHNICAL APPROVAL SCHEDULE (TAS)

Schedule of Documents Relating to Design of Highway Bridges and Structures

(All documents are taken to include revisions current as of November 2025)

Additional standards needed for a particular design should be added to the section at the bottom of the TAS.

The Designer is responsible for ensuring that the standards and references given in the schedule are correct and up to date. Tick all the documents used (✓)

Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	Eurocode 0	**Basis of structural design**		
✓	BS EN 1990:2002 +A1:2005	Eurocode 0: Basis of structural design	+A1:2005 Incorporating corrigenda December 2008 and April 2010	See CD 350 section 5 for additional guidance. This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1990:2023
✓	NA to BS EN 1990:2002 + A1:2005	UK National Annex to Eurocode 0 Basis of structural design	National Amendment No.1	See CD 350 section 5 for additional guidance.
	Eurocode 1	**Actions on structures**		
✓	BS EN 1991-1-1:2002	Eurocode 1: Actions on structures. General Actions. Densities, self-weight, imposed load for buildings	Corrigenda December 2004 and March 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1991-1-1:2025

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
✓	NA to BS EN 1991-1-1:2002	UK National Annex to Eurocode 1: Actions on structures. General Actions. Densities, self-weight, imposed load for buildings	Corrigenda July 2019	
	BS EN 1991-1-3:2003 +A1:2015	Eurocode 1: Actions on structures. General Actions. Snow loads	+A1:2015 Incorporating corrigenda December 2004 and March 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1991-1-3:2025
	NA + A2:18 to BS EN 1991-1-3:2003+A1:2015	UK National Annex to Eurocode 1: Actions on structures. General Actions. Snow loads	+A2:2018 Incorporating corrigenda June 2007, December 2015 and October 2018	
✓	BS EN 1991-1-4:2005 +A1:2010	Eurocode 1: Actions on structures. General Actions. Wind actions	+A1:2010 Corrigenda July 2009 and January 2010	
✓	NA to BS EN 1991-1-4:2005 + A1:2010	UK National Annex to Eurocode 1: Actions on structures. General Actions. Wind actions	National Amendment No.1	
	BS EN 1991-1-5:2003	Eurocode 1: Actions on structures. General Actions. Thermal actions	Corrigenda December 2004 and March 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1991-1-5:2025
	NA to BS EN 1991-1-5:2003	UK National Annex to Eurocode 1: Actions on structures. General Actions. Thermal actions	-	
	BS EN 1991-1-6:2005	Eurocode 1: Actions on structures. General Actions. Actions during execution	Corrigenda July 2008, November 2012 and February 2013	

Scheme title: Croft Street, Birkenshaw
Structure title: Plot 18 Private Retaining Wall

Struc Ref: K61210
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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	NA to BS EN 1991-1-6:2005	UK National Annex to Eurocode 1: Actions on structures. General Actions. Actions during execution	-	
	BS EN 1991-1-7:2006 +A1:2014	**Eurocode 1: Actions on structures. General Actions. Accidental actions**	**+A1: 2014 Corrigendum February 2010**	**This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1991-1-7:2025**
	NA+A1 to BS EN 1991-1-7:2006+A1:2014	UK National Annex to Eurocode 1: Actions on structures. Part 1-7 : Accidental actions	+A1:2014 Incorporating corrigenda August 2014 and November 2015	See CD 350 for additional guidance.
	BS EN 1991-2:2003	Eurocode 1: Actions on structures. Traffic loads on bridges	Corrigenda December 2004 and February 2010	See CD 350 section 5 for additional guidance. This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1991-2:2023
	NA +A1:2020 to BS EN 1991-2:2003	UK National Annex to Eurocode 1: Actions on structures. Traffic loads on bridges	Corrigendum No.1 Amendment June 2020	See CD 350 section 5 for additional guidance.
	Eurocode 2	**Design of concrete structures**		
✓	BS EN 1992-1-1:2004 + A1:2014	Eurocode 2: Design of concrete structures– Part 1-1: General rules and rules for buildings	Incorporating corrigendum January 2008, November 2010 and January 2014	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1992-1-1:2023

Kirklees COUNCIL

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	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
✓	NA + A2:2014 to BS EN 1992-1-1:2004 + A1:2014	UK National Annex to Eurocode 2: Design of concrete structures – Part 1-1: General rules and rules for buildings		
	BS EN 1992-2:2005	Eurocode 2: Design of concrete structures – Part 2: Concrete bridges – Design and detailing rules	Corrigendum July 2008	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1992-1-1:2023
	NA to BS EN 1992-2:2005	UK National Annex to Eurocode 2: Design of concrete structure – Part 2: Concrete bridges – Design and detailing rules	-	
	BS EN 1992-3:2006	Eurocode 2: Design of concrete structures – Part 3: Liquid retaining and containment structures		This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1992-1-1:2023
	NA to BS EN 1992-3:2006	UK National Annex to Eurocode 2: Design of concrete structures – Part 3: Liquid retaining and containment structures	-	
	BS EN 1992-4:2018	Eurocode 2: Design of concrete structures – Part 4: Design of fastenings for use in concrete		
	NA to BS EN 1992-4:2018	UK National Annex to Eurocode 2: Design of concrete structures – Part 4: Design of fastenings for use in concrete		
	Eurocode 3	**Design of steel structures**		

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	BS EN 1993-1-1:2005 + A1:2014	Eurocode 3: Design of steel structures – Part 1-1 General rules and rules for buildings	Corrigenda February 2006 and April 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1993-1-1:2022
	NA + A1:2014 to BS EN 1993-1-1:2005 + A1:2014	UK National Annex to Eurocode 3: Design of steel structures – Part 1-1 General rules and rules for buildings	-	
	BS EN 1993-1-3:2006	Eurocode 3: Design of steel structures – Part 1-3 General rules – Supplementary rules for cold-formed members and sheeting	Corrigendum November 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1993-1-3:2024
	NA to BS EN 1993-1-3:2006	UK National Annex to Eurocode 3: Design of steel structures – Part 1-3 Supplementary rules for cold-formed members and sheeting	-	
	BS EN 1993-1-4:2006 + A2:2020	Eurocode 3: Design of steel structures – Part 1-4 General rules – Supplementary rules for stainless steels	+ A1:2015 Amendment No. 1 + A2:2020 Amendment No. 2	Supersedes BS EN 1993-1-4:2006 + A1:2015
	NA+A1:15 to BS EN 1993-1-4:2006+A1:2015	UK National Annex to Eurocode 3: Design of steel structures – Part 1-4 Supplementary rules for stainless steels	+ A1:2015 Amendment No. 1	
	BS EN 1993-1-5:2006+A2:2019	Eurocode 3: Design of steel structures – Part 1-5 Plated structural elements	Corrigendum April 2009, +A1:2017 Amendment No. 2, +A2:2019	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1993-1-5:2024

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	NA+A1:2016 to BS EN 1993-1-5:2006	**UK National Annex to Eurocode 3: Design of steel structures – Part 1-5 Plated structural elements**	**+ A1:2016 Amendment No. 1**	**This document is to be used until 30 March 2028. After which it will be superseded by NA to BS EN 1993-1-5:2024**
	BS EN 1993-1-6:2007+ A1:2017	Eurocode 3: Design of steel structures – Part 1-6 Strength and stability of shell structures	+ A1:2017 Amendment No. 1	
	BS EN 1993-1-7:2007	Eurocode 3: Design of steel structures – Part 1-7 Plated structures subject to out of plane loading	Corrigendum April 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1993-1-7:2025
	BS EN 1993-1-8:2005	Eurocode 3: Design of steel structures – Part 1-8 Design of joints	Corrigenda December 2005, September 2006, July 2009 and August 2010	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1993-1-8:2024
	NA to BS EN 1993-1-8:2005	UK National Annex to Eurocode 3: Design of steel structures – Part 1-8 Design of joints	-	
	BS EN 1993-1-9:2005	Eurocode 3: Design of steel structures – Part 1-9 Fatigue	Corrigenda December 2005, September 2006 and April 2009	
	NA to BS EN 1993-1-9:2005	UK National Annex to Eurocode 3: Design of steel structures – Part 1-9 Fatigue	-	
	BS EN 1993-1-10:2005	Eurocode 3: Design of steel structures – Part 1-10 Material toughness and through-thickness properties	Corrigenda December 2005, September 2006 and March 2009	

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	NA to BS EN 1993-1-10:2005	UK National Annex to Eurocode 3: Design of steel structures – Part 1-10 Material toughness and through thickness properties	-	
	BS EN 1993-1-11:2006	Eurocode 3: Design of steel structures – Part 1-11 Design of structures with tension components	Corrigendum April 2009	
	NA to BS EN 1993-1-11:2006	UK National Annex to Eurocode 3: Design of steel structures – Part 1-11 Design of structures with tension components	-	
	BS EN 1993-1-12:2007	Eurocode 3: Design of steel structures – Part 1-12 Additional rules for the extension of EN 1993 up to steel grades S 700	Corrigendum April 2009	
	NA to BS EN 1993-1-12:2007	UK National Annex to Eurocode 3: Design of steel structures – Part 1-12 Additional rules for the extension of EN 1993 up to steel grades S 700	-	
	BS EN 1993-2:2006	Eurocode 3: Design of steel structures – Part 2 Steel bridges	Corrigendum July 2009	
	NA + A1:2012 to BS EN 1993-2:2006	UK National Annex to Eurocode 3: Design of steel structures – Part 2 Steel bridges	+ A1:2012	

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	BS EN 1993-5:2007	**Eurocode 3: Design of steel structures – Part 5 Piling**	**Corrigendum May 2009**	**This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1993-5:2025**
	NA + A1:2012 to BS EN 1993-5:2007	UK National Annex to Eurocode 3: Design of steel structures – Part 5 Piling	+ A1:2012	
	Eurocode 4	**Design of composite steel and concrete structures**		
	BS EN 1994-1-1:2004	Eurocode 4: Design of composite steel and concrete structures – Part 1-1 General rules and rules for buildings	Corrigendum April 2009	
	NA to BS EN 1994-1-1:2004	UK National Annex to Eurocode 4: Design of composite steel and concrete structures – Part 1-1 General rules and rules for buildings	-	
	BS EN 1994-2:2005	Eurocode 4: Design of composite steel and concrete structures – Part 2 General rules and rules for bridges	Corrigendum July 2008	
	NA to BS EN 1994-2:2005	UK National Annex to Eurocode 4: Design of composite steel and concrete structures – Part 2 General rules and rules for bridges	-	
	Eurocode 5	**Design of timber structures**		

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	BS EN 1995-1-1:2004 + A2:2014	**Eurocode 5: Design of timber structures – Part 1-1 General – common rules and rules for buildings**	**+ A2:2014 Incorporating corrigendum June 2006**	**This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1995-1-1:2025**
	NA to BS EN 1995-1-1:2004 + A2:2014	UK National Annex to Eurocode 5: Design of timber structures – Part 1-1 General – common rules and rules for buildings	+ A2:2014	
	BS EN 1995-2:2004	Eurocode 5: Design of timber structures – Part 2 Bridges	-	
	NA to BS EN 1995-2:2004	UK National Annex to Eurocode 5: Design of timber structures – Part 2 Bridges	-	
	Eurocode 6	**Design of masonry structures**		
✓	BS EN 1996-1-1:2005+A1:2012	Eurocode 6: Design of masonry structures – Part 1-1 General rules for reinforced and unreinforced masonry structures	+A1:2012 Corrigenda February 2006 and July 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1996-1-1:2022
✓	NA to BS EN 1996-1-1:2005 +A1:2012	UK National Annex to Eurocode 6: Design of masonry structures – Part 1-1 General rules for reinforced and unreinforced masonry structures	+A1:2012	This document is to be used until 30 March 2028. After which it will be superseded by NA to BS EN 1996-1-1:2022
	BS EN 1996-2:2006	Eurocode 6: Design of masonry structures – Part 2 Design considerations, selection of materials and execution of masonry	Corrigendum September 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1996-2:2024

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	NA to BS EN 1996-2:2006	UK National Annex to Eurocode 6: Design of masonry structures – Part 2 Design considerations, selection of materials and execution of masonry	Corrigendum No.1	
	BS EN 1996-3:2006	Eurocode 6: Design of masonry structures – Part 3 Simplified calculation methods for unreinforced masonry structures	Corrigendum October 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1996-3:2023
	NA +A1:2014 to BS EN 1996-3:2006	UK National Annex to Eurocode 6: Design of masonry structures – Part 3 Simplified calculation methods for unreinforced masonry structures	+A1:2014	
	Eurocode 7	**Geotechnical design**		
✓	BS EN 1997-1:2004+A1:2013	Eurocode 7: Geotechnical design – Part 1 General rules	+A1:2013 Corrigendum February 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1990:2023, BS EN 1997-1:2024, BS EN 1997-3:2025
✓	NA+A2:2022 to BS EN 1997-1:2004+A1:2013	UK National Annex to Eurocode 7: Geotechnical design – Part 1 General rules	+A1:2013 Incorporating Corrigendum No.1, Amendment 1 – July 2014 and Amendment 2 - 2022	Supersedes NA+A1:2014 to BS EN 1997-1:2004+A1:2013

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	BS EN 1997-2:2007	Eurocode 7: Geotechnical design – Part 2 Ground investigation and testing	Corrigendum June 2010	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1997-3:2025, BS EN 1997-2:2024
	NA to BS EN 1997-2:2007	UK National Annex to Eurocode 7: Geotechnical design – Part 2 Ground investigation and testing	-	This document is to be used until 30 March 2028. After which it will be superseded by NA to BS EN 1997-2:2024
	Eurocode 8	**Design of structures for earthquake resistance**		
	BS EN 1998-1:2004 + A1:2013	Eurocode 8: Design of structures for earthquake resistance – Part 1 General rules, seismic actions and rules for buildings	Corrigendum June 2009, January 2011 and March 2013	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1998-1-1:2024
	NA to BS EN 1998-1:2004	UK National Annex to Eurocode 8: Design of structures for earthquake resistance – Part 1 General rules, seismic actions and rules for buildings	-	
	BS EN 1998-2:2005+A2:2011	Eurocode 8: Design of structures for earthquake resistance – Part 2 Bridges	Corrigenda February 2010 and February 2012	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1998-2:2025
	NA to BS EN 1998-2:2005	UK National Annex to Eurocode 8: Design of structures for earthquake resistance – Part 2 Bridges	-	

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	BS EN 1998-5:2004	Eurocode 8: Design of structures for earthquake resistance – Part 5 Foundations, retaining structures and geotechnical aspects	-	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1998-5:2024
	NA to BS EN 1998-5:2004	UK National Annex to Eurocode 8: Design of structures for earthquake resistance – Part 5 Foundations, retaining structures and geotechnical aspects	-	
	Eurocode 9	**Design of aluminium structures**		
	BS EN 1999-1-1:2007 + A2:2013	Eurocode 9: Design of aluminium structures– Part 1-1 General structural rules	+ A2:2013 Incorporating corrigendum March 2014	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1999-1-1:2023
	NA to BS EN 1999-1-1:2007 + A1:2009	UK National Annex to Eurocode 9: Design of aluminium structures – Part 1-1 General structural rules	National Amendment No.1 Corrigendum No.1	
	BS EN 1999-1-3:2007 + A1:2011	Eurocode 9: Design of aluminium structures – Part 1-3 Structures susceptible to fatigue	+ A1:2011	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1999-1-3:2023
	NA to BS EN 1999-1-3:2007 + A1:2011	**UK National Annex to Eurocode 9: Design of aluminium structures – Part 1-3 Structures susceptible to fatigue**	**+ A1:2011**	**This document is to be used until 30 March 2028. After which it will be superseded by NA to BS EN 1999-1-3:2023**

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	**Title**	**Amendment / Corrigenda**	***Notes***
	BS EN 1999-1-4:2007 +A1:2011	Eurocode 9: Design of aluminium structures – Part 1-4 Cold formed structural sheeting	+ A1:2011 Corrigendum November 2009	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1999-1-4:2023
	NA to BS EN 1999-1-4:2007	**UK National Annex to Eurocode 9: Design of aluminium structures – Part 1-4 Cold formed structural sheeting**	**-**	**This document is to be used until 30 March 2028. After which it will be superseded by NA to BS EN 1999-1-4:2023**

Used (✓)	Bsi Published Documents *For guidance only unless clauses are otherwise specified in CD 350 Appendix A.*		
	Published Document reference	**Title**	**Notes**
	PD 6687-1:2020	Background paper to the UK National Annexes to BS EN 1992-1 and BS EN 1992-3	Supersedes PD 6687-1:2010 See CD 350 clauses 2.7, 4.1, 4.2 and Appendix A for additional guidance. Clause 2.7 in CD 350 refers to clause 4.5 in PD 6687-1 Clause 4.2 in CD 350 refers to clause 4.21.4 in PD 6687-1
	PD 6687-2:2008	Recommendations for the design of structures to BS EN 1992-2:2005	See CD 350 clauses 4.1, 4.2 and Appendix A for additional guidance.
	PD 6688-1-1:2011	Recommendations for the design of structures to BS EN 1991-1-1	See CD 350 Appendix A for additional guidance.
✓	PD 6688-1-4:2015	Background paper to the UK National Annex to BS EN 1991-1-4	See CD 350 Appendix A for additional guidance.
	PD 6688-1-7:2009 +A1:2014	Recommendations for the design of structures to BS EN 1991-1-7	See CD 350 clause 2.8 and Appendix B for additional guidance.
	PD 6688-2:2011	Recommendations for the design of structures to BS EN 1991-2	See CD 350 Appendix A for additional guidance.

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Used (✓)	Bsi Published Documents *For guidance only unless clauses are otherwise specified in CD 350 Appendix A.*		
	Published Document reference	**Title**	**Notes**
	PD 6694-1:2011 + A1:2020	Recommendations for the design of structures subject to traffic loading to BS EN 1997-1	Incorporating Corrigendum 1 Jan 2022 & Corrigendum 2 Jul 2023 See CD 350 Appendix A for additional guidance.
	PD 6695-1-9:2008	Recommendations for the design of structures to BS EN 1993-1-9	See CD 350 Appendix A for additional guidance.
	PD 6695-1-10:2009	Recommendations for the design of structures to BS EN 1993-1-10	See CD 350 Appendix A for additional guidance.
	PD 6695-2:2008 + A1:2012 Incorporating Corrigendum No.1	Recommendation for the design of bridges to BS EN 1993	See CD 350 Appendix A for additional guidance.
	PD 6696-2:2007 + A1:2012	Background paper to BS EN 1994-2 and the UK National Annex to BS EN 1994-2	See CD 350 Appendix A for additional guidance.
	PD 6698:2009	Recommendations for the design of structures for earthquake resistance to BS EN 1998	See CD 350 section 5 for additional guidance.
	PD 6702-1:2009+A1:2019	Structural use of aluminium. Recommendations for the design of aluminium structures to BS EN 1999	Amended 31 May 2019
	PD 6703:2009	Structural bearings – Guidance on the use of structural bearings	
	PD 6705-2:2020	Structural use of steel and aluminium. Execution of steel bridges conforming to BS EN 1090-2. Guide	Replaces PD 6705-2:2010 + A1:2013
	PD 6705-3:2009	Recommendations on the execution of aluminium structures to BS EN 1090-3	

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Used (✓)	Execution Standards referenced in British Standards or Eurocodes		
	Execution Standard reference	**Title**	**Notes**
	BS EN 1090-1:2009+A1:2011	Execution of steel structures and aluminium structures - Part 1: Requirements for conformity assessment of structural components	
	BS EN 1090-2:2018+A1:2024	Execution of steel structures and aluminium structures. Technical requirements for the execution of steel structures	Supersedes BS EN 1090-2:2018
	BS EN 1090-3:2019	Execution of steel structures and aluminium structures – Part 3: Technical requirements for aluminium structures	Supersedes BS EN 1090-3:2008
	BS EN 13670:2009 Incorporating corrigenda October 2015 and November 2015	Execution of concrete structures	

Used (✓)	Product Standards referenced in British Standards or Eurocodes		
	Product Standard reference	**Title**	**Notes**
✓	BS EN 206:2013+A2:2021	Concrete – Specification, performance, production and conformity	Supersedes BS EN 206:2013+A1:2016
	BS EN 1317-1:2010	Road Restraint Systems – Part 1 – Terminology and general criteria for test methods	
		Road Restraint Systems – Part 2 – Performance classes, impact test acceptance criteria and test methods for safety barriers.	
	BS EN 1317-3:2010	Road Restraint Systems – Part 3 – Performance classes, impact test acceptance criteria and test methods for crash cushions.	
	DD ENV 1317-4:2002	Road Restraint Systems – Part 4 – Performance classes, impact test acceptance criteria and test methods for terminals and transitions of safety barriers.	*Draft BS EN 1317-4 for public comment published in June 2012*

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Used (✓)	Product Standards referenced in British Standards or Eurocodes		
	Product Standard reference	**Title**	**Notes**
	BS EN 1317-5:2007+A2:2012	Road Restraint Systems – Part 5 - Product requirements and evaluation of conformity for vehicle restraint systems	Incorporating corrigendum August 2012 *Draft prEN 1317-5 for public comment published in December 2013*
	PD CEN/TR 16949:2016	Road Restraint System – Pedestrian restraint system - Pedestrian parapets	*Bsi Published Document / CEN Technical Report published in July 2016* *(This document should not be used. The requirements of BS 7818:1995 apply.)*
	PD CEN/TS 1317 7:2023	Road restraint systems - Part 7: Performance characterisation and test methods for terminals of safety barriers	*Replaces Draft prEN 1317-7* *(All terminals should be in accordance with this document or ENV1317-4.)*
	PD CEN/TS 17342:2019	Road restraint systems - Motorcycle road restraint systems which reduce the impact severity of motorcyclist collisions with safety barriers	*Replaces* PD CEN/TS 1317-8:2012 *(This document should not be used.)*
	PD CEN/TR 17081:2018	Design of fastenings for use in concrete – Plastic design of fastenings with headed and post-installed fasteners	
	BS EN 1337-1:2000	Structural bearings – Part 1: General Design Rules	
	BS EN 1337-2:2004	Structural bearings – Part 2: Sliding elements	
	BS EN 1337-3:2005	Structural bearings – Part 3: Elastomeric bearings	
	BS EN 1337-4:2004	Structural bearings – Part 4: Roller bearings	Corrigendum No.1 March 2007
	BS EN 1337-5:2005	Structural bearings – Part 5: Pot bearings	
	BS EN 1337-6:2004	Structural bearings – Part 6: Rocker bearings	
	BS EN 1337-7:2004	Structural bearings – Part 7: Spherical and cylindrical PTFE bearings	
	BS EN 1337-8:2007	Structural bearings – Part 8: Guide bearings and restraint bearings	
	BS EN 1337-9:1998	Structural bearings – Part 9: Protection	
	BS EN 1337-10:2003	Structural bearings – Part 10: Inspection and maintenance	Corrigendum No.1 November 2003

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Used (✓)	Product Standards referenced in British Standards or Eurocodes		
	Product Standard reference	**Title**	**Notes**
	BS EN 1337-11:1998	Structural bearings – Part 11: Transport, Storage and Installation.	
	BS EN 10025-1:2004	Hot rolled products of structural steels Part 1: General technical delivery conditions.	
	BS EN 10025-2:2019	Hot rolled products of structural steels Part 2: Technical delivery conditions for non-alloy structural steels.	Supersedes BS EN 10025-1:2004
	BS EN 10025-3:2019	Hot rolled products of structural steels Part 3: Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels.	Supersedes BS EN 10025-3:2004
	BS EN 10025-4:2019+A1:2022	Hot rolled products of structural steels Part 4: Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels.	Supersedes BS EN 10025-4:2019
	BS EN 10025-5:2019	Hot rolled products of structural steels – Part 5: Technical delivery conditions for structural steels with improved atmospheric corrosion resistance	Supersedes BS EN 10025-5:2004
	BS EN 10025-6:2019+A1:2022	Hot rolled products of structural steels – Part 6: Technical delivery conditions for flat products of high yield strength structural steels in the quenched and tempered condition.	Supersedes BS EN 10025-6:2019
	BS EN 10080:2005	Steel for the reinforcement of concrete – Weldable reinforcing steel - General	
	BS EN 10210-1:2006	Hot finished structural hollow sections of non-alloy and fine grain steels – Part 1: Technical delivery conditions	
	BS EN 10210-2:2019	Hot finished structural hollow sections – Part 2: Tolerances, dimensions and sectional properties	Supersedes BS EN 10210-2:2006
	BS EN 10248-1:2023	Hot rolled sheet piling of non alloy steels. Technical delivery conditions	Supersedes BS EN 10248-1:1996

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Used (✓)	Product Standards referenced in British Standards or Eurocodes		
	Product Standard reference	**Title**	**Notes**
	BS EN 10248-2:2024	Hot rolled sheet piling of non alloy steels. Tolerances on shape and dimensions	Supersedes BS EN 10248-2:1996
	BS EN 12063:2024	Execution of special geotechnical work. Sheet pile walls.	Supersedes BS EN 12063:1999
	BS EN 13369:2023	Common rules for precast concrete products	Supersedes BS EN 13369:2018
	BS EN 14388:2005	Road traffic noise reducing devices	There is a 2015 version, however the 2015 version is not harmonised.
	BS EN 15050:2007 + A1:2012	Precast concrete products – Bridge elements	See CD 350 clause 2.10.1 for additional guidance.
	BS EN 15258:2008	Precast concrete products - Retaining wall elements	

Used (✓)	British Standards		
	British Standard reference	**Title**	**Notes**
✓	BS 4449:2005+A3:2016	Steel for the reinforcement of concrete	No longer covers plain round bar. (See BS4482 up to 12mm dia, see BS EN 10025-1 for larger sizes and dowels. See BS EN 13877-3 for dowel bars in concrete pavements.)
	BS 5896:2012	Specification for high tensile steel wire and strand for the prestressing of concrete	

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Used (✓)	British Standards		
	BS 7818:1995	Specification for pedestrian restraint systems in metal	Incorporating Corrigendum No.1 May 2004 and Corrigendum No.2 September 2006 Currently the requirements of BS 7818:1995 are to be used instead of PD CEN/TR 16949:2016
✓	BS 8002:2015	Code of practice for earth retaining structures	
	BS 8004:2015 +A1 2020	Code of practice for foundations	Amendment +A1:2020
	BS 8006-1:2010+A1:2016	Code of practice for strengthened/reinforced soils and other fills	
✓	BS 8500-1:2023	Concrete – Complementary British Standard to BS EN 206: Method of specifying and guidance for the specifier.	Supersedes BS 8500-1:2015+A2:2019
	BS 8500-2:2023	Concrete – Complementary British Standard to BS EN 206: Specification for constituent materials and concrete.	Supersedes BS 8500-2:2015+A2:2019
	BS 8666:2020	Scheduling, dimensioning, bending and cutting of steel reinforcement for concrete	Supersedes BS 8666:2005

Used (✓)	The Manual Contract Document for Highway Works (MCHW)		
	MCHW reference	**Title**	***Notes***
	MCHW Volume 1: October 2022	Specification for Highway Works	*Specification compliant with the execution standards must be used. A Departure is necessary for the parts*

			where a compliant revision has not been published. Amendments October 2022 Supersedes April 2022 version
	MCHW Volume 2: October 2022	Notes for guidance on the Specification for Highway Works	*Notes for guidance compliant with the execution standards must be used. A Departure is necessary for the parts where a compliant revision has not been published. Amendments October 2022 Supersedes November 2021 version*
	MCHW Volume 3: February 2017	Highway Construction Details	

Used (✓)	**The Design Manual for Roads and Bridges (DMRB)**		
	DMRB reference	**Title**	**Notes**
	GG 101 Revision 0.1.0	Introduction to the Design Manual for Roads and Bridges	Replaces GG 101 Revision 0
	GG 102 Revision 0	Quality Management Systems for Highway Design	Replaces GD 02/16
	GG 103 Revision 0	Introduction and general requirements for sustainable development and design	
	GG 104 Revision 0.1.0	Requirements for Safety Risk Assessment	Replaces GG 104 Revision 0
	GG 184 Revision 0	Specification for the use of Computer Aided Design	Replaces IAN 184/16
✓	**CG 300 Revision 0.2.2**	**Technical approval of highway structures**	**Supersedes CG 300 Revision 0.2.1**
	CG 302 Revision 0	As-built, operational and maintenance records for highway structures	Supersedes BD 62/07
	CG 303 Revision 0.1.0	**Quality assurance scheme for**	**Supersedes CG 303 Revision 0**

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Used (✓)	The Design Manual for Roads and Bridges (DMRB)		
	DMRB reference	**Title**	**Notes**
		paints and similar protective coatings	
	CG 305 Revision 0	Identification marking of highway structures	Supersedes BD 45/93
	CG 501 Revision 2	Design of highway drainage systems	Supersedes HD 33/16, TA 80/99
	CD 127 Revision 1.0.1	Cross-sections and headrooms	Replaces TD 27/05 and TD 70/08
✓	**CD 350 Revision 1.0.0**	**The design of highway structures**	**Supersedes CD 350 Revision 0**
	CD 351 Revision 0	The design and appearance of highway structures	Supersedes BA 41/98
	CD 352 Revision 0.0.1	Design of road tunnels	Supersedes CD 352 Revision 0
	CD 353 Revision 0	Design criteria for footbridges	Supersedes BD 29/17
	CD 354 Revision 2.1.0	**Design of minor structures**	**Supersedes CD 354 Revision 2.0.0**
	CD 355 Revision 0	Application of whole-life costs for design and maintenance of highway structures	Replaces BD 36/92 and BA 28/92
	CD 356 Revision 1	Design of highway structures for hydraulic action	Supersedes BA 59/94
	CD 357 Revision 1.1.0	**Bridge expansion joints**	**Replaces CD 357 Revision 1**
	CD 358 Revision 2.5.0	**Waterproofing and surfacing of concrete bridge decks**	**Supersedes CD 358 Revision 2.4.0**
	CD 359 Revision 0.0.1	**Design requirements for permanent soffit formwork**	**Supersedes CD 359 Revision 0**
	CD 360 Revision 2	Use of compressive membrane action in bridge decks	Supersedes BD 81/02

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Used (✓)	The Design Manual for Roads and Bridges (DMRB)		
	DMRB reference	**Title**	**Notes**
	CD 361 Revision 0.1.0	**Weathering steel for highway structures**	**Supersedes CD 361 Revision 0**
	CD 362 Revision 1	Enclosure of bridges	Replaces BD 67/96 and BA 67/96
	CD 363 Revision 0	Design rules for aerodynamic effects on bridges	Replaces BD 49/01
	CD 364 Revision 0.0.1	**Formation of continuity joints in bridge decks**	**Replaces CD 364 Revision 0**
	CD 365 Revision 1.1.0	**Portal and cantilever signs/signals gantries**	**Replaces CD 365 Revision 1**
	CD 366 Revision 0	Design criteria for collision protection beams	Replaces BD 65/14
	CD 367 Revision 0	Treatment of existing structures on highways widening schemes	Replaces BD 95/07
	CD 368 Revision 0	Design of fibre reinforced polymer bridges and highway structures	Replaces BD 90/05
	CD 369 Revision 1.0.0	**Surface protection for concrete highway structures**	**Replaces CD 369 Revision 0**
	CD 371 Revision 0.0.1	**Strengthening highway structures using fibre-reinforced polymers and externally bonded steel plates**	**Replaces CD 371 Revision 0**
	CD 372 Revision 1.0.0	**Design of post-installed anchors and reinforcing bar connections in concrete**	**Supersedes CD 372 Revision 0**

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Used (✓)	The Design Manual for Roads and Bridges (DMRB)		
	DMRB reference	**Title**	**Notes**
	CD 373 Revision 0.1.0	**Impregnation of reinforced and prestressed concrete highway structures using hydrophobic pore-lining impregnants**	**Supersedes CD 373 Revision 0**
	CD 374 Revision 0.0.1	**The use of recycled aggregates in structural concrete**	**Supersedes CD 374 Revision 0**
	CD 375 Revision 2.0.0	**Design of corrugated steel buried structures**	**Supersedes CD 375 Revision 1**
	CD 376 Revision 0.0.1	**Unreinforced masonry arch bridges**	**Replaces CD 376 Revision 0**
	CD 377 Revision 5.0.0	**Requirements for road restraint systems**	**Supersedes CD 377 Revision 4**
	CD 622 Revision 2.0.0	**Managing geotechnical risk**	**Replaces CD 622 Revision 1**
	CS 461 Revision 0.2.0	**Assessment and upgrading of in-service parapets**	**Supersedes CS 461 Revision 0.1.0**
	CS 462 Revision 0.1.0	**Repair and management of deteriorated concrete highway structures**	**Supersedes CS 462 Revision 0**
	GD 304 Revision 2	Designing health and safety into maintenance	Replaces IAN 69/15
	LA 104 Revision 1	Environmental assessment and monitoring	Supersedes HA 205/08, HD 48/08, IAN 125/15, and IAN 133/10
	LA 106 Revision 1	Cultural heritage assessment	Supersedes HA 208/07, HA 60/92, HA 75/01
	LA 110 Revision 0	Material assets and waste	Supersedes IAN 153/11

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Used (✓)	The Design Manual for Roads and Bridges (DMRB)		
	DMRB reference	**Title**	**Notes**
	LA 113 Revision 1	Road drainage and the water environment	Supersedes HD 45/09
	LD 119 Revision 0	Roadside environmental mitigation and enhancement	Formerly LA 119, which superseded HA 65/94 and HA 66/95
	Interim Advice Notes		
	IAN reference	**Title**	**Notes**
	~~IAN 105/08~~	~~Implementation of construction (design and management) 2007 and the withdrawal of SD 10 and SD 11~~	This document has been withdrawn without replacement.

Used (✓)	Miscellaneous		
	Standard reference	**Title**	**Notes**
	CIRIA C543	Bridge Detailing Guide	
	CIRIA C686	Safe Access for Maintenance and Repair	
	CIRIA C760	Guidance on embedded retaining wall design	
	CIRIA C766	Control of cracking caused by restrained deformation in concrete	Supersedes C660

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Used (✓)	Miscellaneous		
	Standard reference	**Title**	**Notes**
	CIRIA C777	General fixings – guidance on selection and whole-life management	

Additional Standards **Additional standards needed for a particular design should be listed here.**		
Reference	**Title**	**Notes**

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APPENDIX B

DRAWINGS

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APPENDIX C

ADDITIONAL INFORMATION