

Civic Centre 1
High Street
Huddersfield
HD1 2NE

APPROVAL IN PRINCIPLE FOR DESIGN OF

***Private Gillcon Lock+Load Retaining Walls
in a New Residential Development off
Westgate, Cleckheaton***

Structure reference: K61200C, D
Date: 17/06/2026
Revision: P7
Status: Final
Prepared by: D.J. Phillipson
Checked by: D. Rogers

APPROVAL IN PRINCIPLE FOR DESIGN

Scheme title: Residential Development off Westgate, Cleckheaton Struc Ref: K61200C, D
Structure title: Private Gillcon Lock+Load Retaining Walls Rev P7 17/06/2026

DOCUMENT CONTROL

Structure title: Private Gillcon Lock+Load Retaining Walls in a New Development off, Westgate, Cleckheaton

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Document issue record

Issue	Status	Prepared	Date	Checked	Date	Approved	Date
-	Appr'l	D.J. Phillipson	20/06/25	D. Rogers	20/06/25	D. Rogers	20/06/25
P1	Appr'l	D.J. Phillipson	09/07/25	D. Rogers	09/07/25	D. Rogers	09/07/25
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P7	Draft	D.J. Phillipson	17/06/26	D. Rogers	17/06/26	D. Rogers	17/06/26

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PROJECT DETAILS

Name of project: Westgate, Cleckheaton

Name of Bridge or Structure: Gillcon Lock+Load Retaining Walls

Structure reference no: K61200C & D

Summary:

AIP is to cover the design of the proposed Lock + Load Retaining Walls adjacent, Plots No's 44 to 52. and adjacent Plot 1 (as shown on drg no QD1776-14-10D).

1. HIGHWAY DETAILS

1.1. Type of highway

1.1.1. Location and OS Map / Grid reference

Location: Westgate, Cleckheaton

OS Map: SE184250

Grid Ref (X, Y): (418400,42500)

1.2. Permitted traffic speed

30 m.p.h.

1.3. Existing restrictions

The walls form the boundary to the Plot garden areas, access is restricted by the plot layout and associated boundaries.

2. SITE DETAILS

2.1. Obstacles crossed

None.

3. PROPOSED STRUCTURE

3.1. Description of structure and design working life

The proposed structure is to be a Lock+Load retaining wall with geogrid-reinforced granular backfill (Class 6I). The system has a 120-year design life as per HAPAS Certificate number 21/H311. The geogrid reinforcement is to be Secugrid 40/40 as per BBA HAPAS Certificate 14/H218.

The Lock+Load alongside Quarry Road is to be 64.2m in length (CH100m – CH164.2m of Wall 03), with a maximum retained height of 3.63m (K61200C).

The Lock+Load alongside Westgate is to be 6.8m in length (CH32.6m – CH36.8m of Wall 01), with a maximum retained height of 1.50m (K61200D).

The reinforced granular backfill is to be compacted Class 6I granular fill, in accordance with the Specification for Highway Works, Series 600.

Construction of the wall is to be in accordance with the manufacturer's installation instructions and HAPAS Certificate number 21/H311.

Design details of the wall are shown on Geoman Ltd. drawing numbers SK24-5558-F1-01, 02, 04E & 05E

3.2. Structural type

Lock + Load Retaining Wall System by Gillcon.

3.3. Foundation type

Wall 01 Lock + Load to be founded on natural clays, bearing pressure from ground investigation report 150kPa, chainage 32.6-36.8m.

Wall 03 Lock+Load to be constructed on a 0.5m deep Load Transfer platform (LTP) over rigid inclusions, chainage 100-164.2 m The ground will be improved to provide the 140kPa required by the retaining wall design, Calculations in appendix C

3.4. Span arrangements

The maximum retained height of Wall 03 alongside Quarry Road is to be 3.63m, see drawing QD1776-14-13 – Section 11-11. The maximum retained height of Wall 01 at Westgate is to be 1.50m, see drawing QD1776-14-13 – Section 12-12.

3.5. Articulation arrangements

As the facing panels are mortarless, no expansion joints are required in the face as a degree of movement can be accommodated due to their mortarless, segmental nature.

3.6. Classes and levels

3.6.1. Consequence class

Consequence class to be CC2 (medium consequence for loss of human life, economic, social or environmental consequences considerable)

3.6.2. Reliability class

Reliability class is to be associated with the consequence class detailed in 3.6.1. Reliability class to be RC2.

Factor for actions to be used KFI = 1,0

3.6.3. Inspection level

Inspection Level 2 – Normal inspection (inspection in accordance with the procedures of the inspecting organisation).

3.7. Road restraint systems requirements

A close boarded 1.8m high timber fence will be constructed behind the retaining wall as the boundary treatment.

The BBA mentions parapet loading from vehicle barriers in Section 4.5, and specific checks are carried out on any vehicle impact loads by the designer. However, in this case it is only a pedestrian barrier (1.8m timber fence) to be considered. Such a fence is shown in Figure 4 of the HAPAS Cert, and this detail is regularly included at the wall crest. The wall design considers the presence of the fence sleeve and associated loading to BS EN 1991-1-4, which will be verified using GEO5 software, considering the effects of the loading on the fence/ sleeve in relation to the upper Lock+Load units. Including the fence sleeves will not therefore compromise the integrity of the wall.

3.8. Proposals for Water Management

Gillcon wall to rear of Plots 44-52 (Wall 03, K61200C) designed with hydrostatic pressure.

A drain to the rear of the wall can not be provided to plots 44-52 due to the wall being at the low point of the site and no available drainage connections are available on site. (The line of perforated pipe along the back of the wall plots 44-48 shown on drg BY00099-STH-B01-XX-DR-S-1007 Rev B, which will take some drainage from the Gillcon wall fill, is not at a level to drain the wall fill.)

For wall adjacent Plot 1, a 150mm diameter perforated longitudinal drain encased in series 500 Type B drainage stone and taken to a suitable outlet see drawing

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BV00099-STH-XX-DR-S-1007. Gillcon wall adjacent to Plot 1 (Wall 01, K61200D) designed with no hydrostatic pressure.

3.9. Proposed arrangements for future maintenance and inspection

3.9.1. Traffic management

Any traffic management system requirements will be agreed with Kirklees Council's Highways department prior to the start of works (where applicable)

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

Inspection will be from the adopted highway

3.10. Environment and sustainability

Constructed from Concrete and Stone backfill, which will be recyclable at end of life.

3.11. Durability. Materials and finishes

Item	Material	Finish / Location
Precast Concrete Facing	Grade RC32/40 XF2	Finish to client requirements, front of wall
Geogrids	Secugrid 40/40 Q6, Extruded Polyester bars	Soil reinforcement to rear of wall
Backfill material	Class 6I in compliance with specification for highway works, (SHW).	Backfill to structure.
Drainage to rear of Wall	150mmØ perforated twin wall drainage pipe laid to positive outlet. Drain to be surrounded with Series 500 Type B drainage stone.	

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

The Risks include

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- Maintenance of access for both site operatives and construction traffic
- Live traffic
- Safety of highway users
- Working at height
- Deep Excavation
- Existing utility services
- Manual handling of heavy objects
- Maintenance of close Boarded Fence to prevent Falls.

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).

Originally proposed concrete wall discounted, to allow an off site manufactured proprietary system to be used.

Costs T.B.C.

3.14. Proposed arrangements for construction

3.14.1. Construction of structure

Outline Method Statement included in Appendix C

3.14.2. Traffic management

Main construction to be from within site boundary, should there be a requirement to carry out works from the adjacent highway, all traffic management will be agreed with Kirklees Highways Streetworks section prior to start on site (where applicable).

3.14.3. Service diversions

No existing services are known to be present. However, utilities plans will be obtained and the presence of private services (if any) will be confirmed prior to the commencement of works.

3.14.4. Interface with existing structures

N/A

3.15. Deliberate damage and security

Reinforced earth retaining wall with Lock+Load precast concrete panel facing, are a robust material to resist vandalism.

4. DESIGN CRITERIA

4.1. Actions

4.1.1. Permanent actions

All permanent actions as outlined in BS EN 1991-1-1 and the national annex.

Backfill density to be 19kN/m³

Concrete density to be 25kN/m³

Surfacing density to be 22kN/m³

4.1.2. Snow, Wind and Thermal actions

Wind actions as outlined in BS EN 1991-1-3 and the National Annex..

Thermal actions to Concrete Segments, joints as manufacturers recommendations.

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

N/A.

4.1.4. Actions relating to General Order traffic under STGO regulations

N/A

4.1.5. Footway or footbridge variable actions

10kN/m² has been allowed for the surcharge load in accordance with BS8002:2015 (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

N/A

4.1.7. Accidental actions

Accidental actions to be in accordance with 4.7.3.1 of BS EN 1991-2 and NA to BS EN 1991-2., The Lock+Load design considered a surcharge of 10kPa on the retained side of the wall in the permanent condition and to represent general construction traffic.

4.1.8. Action during construction

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 of the walls included in this approval will attract loading from the houses.

Vehicle access cannot be gained to land retained by either of the walls to which this approval applies.

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

N/A

4.3. Proposed minimum headroom provided

N/A

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

Low-maintenance materials used.

4.5. Authorities consulted and any special conditions required

Kirklees Council, Highways - conditions as per this AIP.

4.6. Standards and documents listed in the Technical Approval Schedule

TAS dated May 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

The proposed retaining walls will be private structures and as such their maintenance responsibility will solely rest with the adjoining properties title holder/s. This will be shown on the land registry title deeds and plans for the relevant properties (i.e. the maintenance responsibility for the retaining walls is shown using an inverted “T” symbol). The developer will send a copy of the land registry deed plan to the Council's Highway Structures section for record purposes.

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

Lock+Load Retaining Wall System, HAPAS Certificate 21/H311, with reference to BS 8006-1:2010+A1:2016, and clarification on standards from BBA Civils and Standards.

4.9. Proposed safety critical fixings

N/A

5. STRUCTURAL ANALYSIS

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

Fine GEO5 MSE WALL and SLOPE software will be used for wall analyses to BS8006-1:2010 and BS EN 1997-1:2004 Eurocode 7 (Design Approach 1)

The retaining wall components shall be designed in accordance with BS EN 1997-1 Geotechnical Design, General Rules.

The wall shall be analysed based on a metre strip method for Design Approach 1, Combinations 1 & 2 in accordance with BS EN 1997-1.

Each element shall be designed for the worst combination of loads with those stated in Section 4.1.

Ultimate limit state checks shall include, but are not limited to:

- Bearing capacity failure
- Overturning
- Sliding
- Global Instability

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

The most onerous cross-section from CH100m – CH167m, as shown on Section 9-9 on Geoman Ltd. drawing SK24-5558-F1-05E, will be analysed using the design software. . Section 9-9 considers retained heights of up to 4.10m, and therefore covers the maximum retained height from CH100m – CH164.2m of Wall 03 (3.63m).

5.3. Assumptions intended for calculation of structural element stiffness

Flexible structure.

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

Retained: MADE GROUND (ashy gravelly SAND [ASH & CLINKER]) & compacted Class 1/2 upfill. These materials were assumed to have the following minimum properties:

MADE GROUND $\phi' = 28^\circ$, $\gamma = 18\text{kN/m}^3$ and $c' = 0\text{ kPa}$.

CLASS 1/2 FILL $\phi' = 28^\circ$, $\gamma = 19\text{kN/m}^3$ and $c' = 0\text{ kPa}$.

Foundation: Granular LTP on rigid inclusions

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

Ground Investigation shows large amounts of fill material under the retaining walls with an unknown bearing capacity and recommends ground improvement. This is to be done in the form of Rigid inclusions to achieve a minimum bearing pressure of 140kPa with a load transfer platform up to formation level of the Lock+Load. See Appendix C.

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

Differential settlement within each length of retaining wall is anticipated to be negligible (less than 25mm) as the loads in adjacent positions along each wall, and the ground conditions beneath each wall, are similar, foundations are to be placed on rigid inclusions and LTP.

6.3. 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

N/A, previously submitted.

7. CHECK

7.1. Proposed Category and Design Supervision Level

Wall is Category 1 for CG300 CL 3.8 (3).

DSL2, (refer to CD 350 Table 7.2).

7.2. If Category 3, name of proposed Independent Checker

N/A

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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

The design and installation of all temporary works to facilitate the construction will be the responsibility of the Principal Contractor.

There are no Type S or Type P temporary works required as part of the proposal.

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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
BY00099-STH-B01-XX-DR-S-1003, Rev-D	Retaining Wall Heights from Formation
BY00099-STH-B01-XX-DR-S-1007 – Rev B	AIP Walls Land Drain
QD1776-14-10 – Rev D	Mass Concrete and Gillcon Retaining Walls Location Plans
QD1776-14-13 – Rev D	Gillcon Retaining Wall Sections (Sheet 2 of 4)
SK24-5558-F1-01-0	Lock+Load Wall 01 Elevation
SK24-5558-F1-04-E	Lock+Load Wall 03 Elevation
SK24-5558-F1-03-0	Lock+Load Cross - Sections
SK24-5558-F1-05-E	Lock+Load Wall 03 Cross - Sections

8.1.2. Documents (See appendix C)

Reference	Title
HAPAS Certificate 21/H311	Lock and Load Retaining Wall System
HAPAS Certificate 14/H218	Secugrid Geogrids
20251918 email BBA	Email: Gillcon Concrete Products – Lock + Load 21/H311
Gillcon Method Statement	Lock+Load Methodology of Works
Van Elle Method Statement Rev3	Rigid Inclusions Method Statement
3992-A2S-XX-XX-CA-Y-0001-03 Rigid Inclusions Calculations Report	Rigid Inclusions Calculations Report

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9. THE ABOVE IS SUBMITTED FOR ACCEPTANCE

Design Team Leader

Name	D.J. Phillipson
Engineering Qualifications	BEng(Hons), CEng, M.IStructE
Name of Organisation	Queensberry Design Ltd.
Date	17/06/2026

Check Team Leader

Name	D. Rogers
Engineering Qualifications	BSc(Hons), MSc
Name of Organisation	Queensberry Design Ltd.
Date	17/06/2026

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

Name	Claire Richardson
Position held	Principal Engineer (Bridges & Structures)
Engineering Qualifications	Beng CEng MICE
TAA	Kirklees Council
Date	03-07-2026

For and on behalf of Kirklees Council

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APPENDIX A

LIST OF RELEVANT DESIGN DOCUMENTS

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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 May 2026)

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 7 for additional guidance. This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1990:2023+A1:2026
✓	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 7 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
✓	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

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	Title	Amendment / Corrigenda	Notes
✓	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	
✓	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	
✓	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.

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	Title	Amendment / Corrigenda	Notes
	BS EN 1991-2:2003	Eurocode 1: Actions on structures. Traffic loads on bridges	Corrigenda December 2004 and February 2010	See CD 350 section 7 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 7 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
	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		This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1992-1-1:2023
	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	-	This document is to be used until 30 March 2028. After which it will be superseded by BS EN 1992-1-1:2023
	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

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	Title	Amendment / Corrigenda	Notes
	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		
	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	-	

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	Title	Amendment / Corrigenda	Notes
	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
	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	
	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	-	

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Structure title: Private Gillcon Lock+Load Retaining Walls **Rev P7 17/06/2026**

Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	Title	Amendment / Corrigenda	Notes
	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	
	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	-	

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	Title	Amendment / Corrigenda	Notes
	BS EN 1993-2:2006	Eurocode 3: Design of steel structures – Part 2 Steel bridges	Corrigendum July 2009	This document is to be used until 30 March 2028. After which it will be superseded by NA to BS EN 1993-2:2026
	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	
	BS EN 1993-5:2007	Eurocode 3: Design of steel structures – Part 5 Piling	Corrigendum May 2009	
	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	This document is to be used until 30 March 2028. After which it will be superseded by NA to BS EN 1994-2:2026
	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	-	

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	Title	Amendment / Corrigenda	Notes
	Eurocode 5	Design of timber structures		
	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	
	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
	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

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	Title	Amendment / Corrigenda	Notes
	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	-	
	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

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Used (✓)	Eurocodes and associated UK National Annexes			
	Eurocode part	Title	Amendment / Corrigenda	Notes
	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	
	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	-	

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Used (✓)	Bsi Published Documents <i>For guidance only unless clauses are otherwise specified in CD 350 Appendix A.</i>		
	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 3.6, 4.1, 4.2 and Appendix A for additional guidance. Clause 3.6 in CD 350 refers to clause 2.5 in PD 6687-1, this is now clause 4.5 in PD 6687-1 Clause 4.2 in CD 350 refers to clause 2.22 in PD 6687-1, this is now 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 CD350 clause 3.7 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.
	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.

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Used (✓)	Bsi Published Documents		
	<i>For guidance only unless clauses are otherwise specified in CD 350 Appendix A.</i>		
	Published Document reference	Title	Notes
	PD 6698:2009	Recommendations for the design of structures for earthquake resistance to BS EN 1998	See CD 350 section 7 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	

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	

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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	
	BS EN 1317-2:2010	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.	<i>Draft BS EN 1317-4 for public comment published in June 2012</i>
	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 <i>Draft prEN 1317-5 for public comment published in December 2013</i>
	PD CEN/TR 16949:2016	Road Restraint System – Pedestrian restraint system - Pedestrian parapets	<i>Bsi Published Document / CEN Technical Report published in July 2016</i> <i>(This document should not be used. The requirements of BS 7818:1995 apply.)</i>
	PD CEN/TS 1317 7:2023	Road restraint systems - Part 7: Performance characterisation and test methods for terminals of safety barriers	<i>Replaces Draft prEN 1317-7</i> <i>(All terminals should be in accordance with this document or ENV1317-4.)</i>

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Used (✓)	Product Standards referenced in British Standards or Eurocodes		
	Product Standard reference	Title	Notes
	PD CEN/TS 17342:2019	Road restraint systems - Motorcycle road restraint systems which reduce the impact severity of motorcyclist collisions with safety barriers	<i>Replaces PD CEN/TS 1317-8:2012 (This document should not be used.)</i>
	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
	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

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Used (✓)	Product Standards referenced in British Standards or Eurocodes		
	Product Standard reference	Title	Notes
	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
	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 3.8.1 for additional guidance.
	BS EN 15258:2008	Precast concrete products - Retaining wall elements	

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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	
	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

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Used (✓)	The Manual Contract Document for Highway Works (MCHW)		
	MCHW reference	Title	Notes
✓	MCHW Volume 1: October 2022	Specification for Highway Works	<i>Specification compliant with the execution standards must be used. A Departure is necessary for the parts where a compliant revision has not been published.</i> <i>Amendments October 2022</i> <i>Supersedes April 2022 version</i>
✓	MCHW Volume 2: October 2022	Notes for guidance on the Specification for Highway Works	<i>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.</i> <i>Amendments October 2022</i> <i>Supersedes November 2021 version</i>
✓	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	Quality assurance scheme for paints and similar protective coatings	Supersedes BD 35/14
	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 0	The design of highway structures	Supersedes BD 100/16, BA 57/01, BD 57/01 and IAN 124/11
	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

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Used (✓)	The Design Manual for Roads and Bridges (DMRB)		
	DMRB reference	Title	Notes
	CD 353 Revision 0	Design criteria for footbridges	Supersedes BD 29/17
	CD 354 Revision 1.1.0	Design of minor structures	Supersedes CD 354 Revision 1
	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	Bridge expansion joints	Replaces BD 33/94, BA 26/94, IAN 168/12 and IAN 169/12
	CD 358 Revision 2.4.0	Waterproofing and surfacing of concrete bridge decks	Supersedes CD 358 Revision 2.3.0
	CD 359 Revision 0	Design requirements for permanent soffit formwork	Supersedes BA 36/90 and IAN 131/11
	CD 360 Revision 2	Use of compressive membrane action in bridge decks	Supersedes BD 81/02
	CD 361 Revision 0	Weathering steel for highway structures	Supersedes BD 7/01
	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	Formation of continuity joints in bridge decks	Replaces BA 82/00
	CD 365 Revision 1	Portal and cantilever signs/signals gantries	Replaces BD 51/14, IAN 193/16, BE 7/04
	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 0	Surface protection for concrete highway structures	Replaces BA 85/04
	CD 371 Revision 0	Strengthening highway structures using fibre-reinforced polymers and externally bonded steel plates	Replaces BD 85/08, BD 84/02
	CD 372 Revision 0	Design of post-installed anchors and reinforcing bar connections in concrete	Supersedes IAN 104/15
	CD 373 Revision 0	Impregnation of reinforced and prestressed concrete highway structures using hydrophobic pore-lining impregnants	Supersedes BD 43/03
	CD 374 Revision 0	The use of recycled aggregates in structural concrete	Supersedes BA 92/07
	CD 375 Revision 1	Design of corrugated steel buried structures	Supersedes BD 12/01
	CD 376 Revision 0	Unreinforced masonry arch bridges	Replaces BD 91/04
	CD 377 Revision 4	Requirements for road restraint systems	Supersedes TD 19/06

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Used (✓)	The Design Manual for Roads and Bridges (DMRB)		
	DMRB reference	Title	Notes
	CD 622 Revision 1	Managing geotechnical risk	Replaces HD 22/08, BD 10/97 and HA 120/08
	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
	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	

APPROVAL IN PRINCIPLE FOR DESIGN

Scheme title: Residential Development off Westgate, Cleckheaton Struc Ref: K61200C, D
Structure title: Private Gillcon Lock+Load Retaining Walls **Rev P7 17/06/2026**

Used (✓)	Miscellaneous		
	Standard reference	Title	Notes
	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
	CIRIA C777	General fixings – guidance on selection and whole-life management	
	Department for Transport - Design & Maintenance Guidance for Local Authority Roads	Provision of Road Restraint Systems on Local Authority Road	Published October 2011
	Department for Transport	Guidance on the Design, Assessment and Strengthening of Masonry Parapets on Highway Structures	Published 2012

APPROVAL IN PRINCIPLE FOR DESIGN

Scheme title: Residential Development off Westgate, Cleckheaton Struc Ref: K61200C, D
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Additional Standards		
Additional standards needed for a particular design should be listed here.		
Reference	Title	Notes
BS1722-5:2006+A1:2018	Fences:Specification for close boarded fences and wooden palisade fences	

APPENDIX B

DRAWINGS

APPROVAL IN PRINCIPLE FOR DESIGN

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APPENDIX C

ADDITIONAL INFORMATION