This document is executed as a deed and is delivered and takes effect
at the date written at the beginning of it

Framework:	Collaborative Delivery Framework
Supplier:	BAM Nuttall Ltd
Company Number:	00305189
Geographical Area:	North East
Contract Name:	Hebble Brook FAS Construction Phase ECC
Project Number:	ENV0002176C
Contract Type:	Engineering Construction Contract
Option:	Option C
Contract Number:	C29867
Stage:	Construction

[redacted]

ENGINEERING AND CONSTRUCTION CONTRACT under the Collaborative Delivery Framework
CONTRACT DATA

Project Name Hebble Brook FAS Construction Phase ECC

Project Number ENV0002176C

This contract is made on 18/09/2025
between the *Client* and the *Contractor*

- This contract is made pursuant to the Framework Agreement (the "Agreement") dated 10th day of April 2019 and Framework Agreement Extension dated and signed 1st April 2023 between the *Client* and the *Contractor* in relation to the Collaborative Delivery Framework. The entire agreement and the following Schedules are incorporated into this Contract by reference

- Schedules 1 to 23 inclusive of the Framework schedules are relied upon within this contract.

- The following documents are incorporated into this contract by reference
  LIT 13260 - CDT NEC4 ECC4 Hebble Brook FAS Construction Phase ECC ENV0002176C scope v2.0 FINAL

Part One - Data provided by the *Client*
Statements given in all Contracts

1 General

The *conditions of contract* are the core clauses and the clauses for the following main Option, the Option for resolving and avoiding disputes and the secondary Options of the NEC4 Engineering and Construction Contract June 2017.

Main Option: Option C

Option for resolving and avoiding disputes: W2

Secondary Options

X2: Changes in the law

X7: Delay damages

X9: Transfer of rights

X10: Information modelling

X11: Termination by the *Client*

X15: *Contractor's* design

X18 Limitation of Liability

X20: Key Performance Indicators

Y(UK)1: Project Bank Account

Y(UK)2: The Housing Grants, Construction and Regeneration Act 1996

Y(UK)3: The Contracts (Rights of Third Parties) Act 1999

Z: *Additional conditions of contract*

The *works* are

The works consist of realigning the Hebble Brook watercourse, constructing a bypass channel around the trash screen, installing log catchers, reprofiling the site, constructing an offline pond and landscaping post works.

The *Client* is [redacted]

Address for communications: Environment Agency [redacted]

Address for electronic communications [redacted]

The *Project Manager* is [redacted]

Address for communications

[redacted]

Address for electronic communications

The *Supervisor* is

Address for communications

Address for electronic communications

The Scope is in
LIT 13260 - CDT NEC4 ECC4 Hebble Brook FAS Construction Phase ECC ENV0002176C scope v2.0 FINAL

The Site Information is in
https://portalak.asite.com/da/notification?action_id=413&nlid=1_7_2146730_9802880_51958251_13755739_0$$xojmo5

The *boundaries of the site* are
ENV0002176C-ARU-00-00-PL-LD-B1300_15-A4-C01-B1300-EA3-LOD3.dwg

The *language of the contract* is English

The *law of the contract* is
the law *of England and Wales, subject to the jurisdiction of the courts of England and Wales*

The period for reply is 2 weeks

The following matters will be included in the Early Warning Register

Early warning meetings are to be held at intervals no longer than 2 weeks

2 The *Contractor's* main responsibilities

The *key dates* and *conditions* to be met are *condition* to be met	*key date*
'none set'	'none set'
'none set'	'none set'
'none set'	'none set'

The *Contractor* prepares forecasts of the total Defined Cost for the whole of the *works* at intervals no longer than 4 weeks

3 Time

The *starting date* is 26 August 2025

The *access dates* are
part of the Site 26 August 2025

The *Contractor* submits revised programmes at intervals no longer than 4 weeks

The *Completion Date* for the whole of the *works* is 13 November 2026

The *Client* is not willing to take over the *works* before the Completion Date

The period after the Contract Date within which the *Contractor* is to submit a first programme for acceptance is 4 weeks

4 Quality management

The period after the Contract Date within which the *Contractor* is to submit a quality plan is 4 weeks

The period between Completion of the whole of the *works* and the *defects date* is 52 weeks

The *defect correction period* is 2 weeks except that
- The *defect correction period* for is 24 hours for public safety Hours
- The *defect correction period* for is 7 days for MEICA Days

5 Payment

The *currency of the contract* is the £ sterling

The *assessment interval* is Monthly

The *Client* set total of the Prices is [redacted]

The *interest rate* is 2.00% per annum (not less than 2) above the Base rate of the Bank of England

The *Contractor's share percentages* and the *share ranges* are

[redacted]

6 Compensation events

The place where weather is to be recorded is Bradford Met Office

The *weather measurements* to be recorder for each calendar month are
- the cumulative rainfall (mm)
- the number of days with rainfall more than 5mm
- the number of days with minimum air temperature less than 0 degrees Celsius
- the number of days with snow lying at 09:00 hours GMT

and these measurements:

1. the cummulative rainfall (mm)
2. the number of days with rainfall more than
3. the number of days with a mimimum air te
4.
5.

The *weather measurements* are supplied by Met Office
The *weather data* are the records of past weather measurement for each calendar month
which were recorded at Bradford Met Office
and which are available from Met Office

Assumed values for the ten year weather return *weather data* for each *weather measurement* for each calendar month are

Jan	Jul
Feb	Aug
Mar	Sep
Apr	Oct
May	Nov
Jun	Dec

These are additional compensation events

1. Carbon Methodology - Adherence to and compliance with the Carbon Methodology dated 08 June 2023

2. The Contractor shall ensure the pumps are monitored during operation using 24 hours CCTV. The pump capacity is 2m3/s and the Contractor is to arrange for flow meters to be installed in the pipework to measure the water flow. The flows are to be recorded via telemetry to provide historical information. A compensation event will be triggered if the flows exceed 2m3/s.

3. The Contractor shall be reimbursed via a monthly compensation event for all costs associated with providing to power pumps. This includes mains electricity supply and any associated Northern Powergrid connection & meter fees (if required), or fuel and any associated fuel additives (if a temporary supply is required).

4. Additional Weather Measurement – Wind. Wind speeds that trigger the anemometer on the crane(s) used for the works, such that the crane cannot operate, excluding where the anemometer

5.

8 Liabilities and insurance

These are additional *Client's* liabilities

1 'not used'

2 'not used'

3 'not used'

The minimum amount of cover for insurance against loss of or damage to property (except the *works*, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor)* arising from or in connection with the *Contractor* Providing the Works for any one event is

[redacted]

The minimum amount of cover for insurance against death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with the contract for any one event is

not less than the amount required by law

The insurance against loss of or damage to the *works,* Plant and Materials is to include cover for Plant and Materials provided by the *Client* for an amount of

Resolving and avoiding disputes

The *tribunal* is litigation in the courts

The *Senior Representatives* of the *Client* are [redacted]

Address for communications

Address for electronic communications

Name

Address for communications

Address for electronic communications

The *Adjudicator* is

Address for communications

'to be confirmed'

Address for electronic communications The nearest calibrated Met Office Weather Station to the site

The *Adjudicator nominating body* is The Institution of Civil Engineers

Z Clauses

Z 2B: Water levels: *Contractor's* risk

Clause 60.1 (12) second bullet point is amended to: “are not weather conditions or floods and”

Z3 Prevention: No change to prices

Delete first sentence of clause 62.2 and replace with:
"Quotations for compensation events except for the compensation event described in 60.1(19) comprise proposed changes to the Prices and any delay to the Completion Date and Key Dates assessed by the *Contractor*. Quotations for the compensation event described in 60.1(19) comprise any delay to the Completion Date and Key Dates assessed by the *Contractor*.
Delete 'The' At start of clause 63.1 and replace with:
"For the compensation event described in 60.1(19) the Prices are not changed. For other compensation events the..."

Z 4 The Schedule of Cost Components

The Schedule of Cost Components is as detailed in the Framework Schedule 9.

Z 6 Payment for Work

Delete existing clause 11.2 (31) and replace with:
"11.2 (31) The Price for Work Done to Date is the total Defined Cost which the *Project Manager* forecasts will have been paid by the *Contractor* before the next assessment date plus the Fee. In all instances and circumstances the Price for Work Done to Date shall not exceed the forecast for the same as provided under clause 20.4."

Z7 *Contractor's* share

After cl54.2 and before cl54.3, insert the following additional clause:
54.2A If, prior to Completion of the whole of the works, the Price for Work Done to Date exceeds 111% of the total of the Prices, the amount in excess of 111% of the total of the Prices is retained from the Contractor.

Z10 Payments to subcontractors, sub consultants and Subcontractors

The *Contractor* will use the NEC4 contract on all subcontracts for works unless another alternative and appropriate form is proposed and agreed in accordance with clause 26.3.
Payment to subcontractors will be 28 days from the assessment date.
If the *Contractor* does not achieve payments within these timescales then the Client reserves the right to delay payments to the Contractor in respect of subcontracted work, services or goods.
Failure to pay subcontractors and suppliers within contracted times scales will also adversely affect the *Contractor's* opportunities to work on framework contracts.

Z11Y(UK) 3 The Contracts (Rights of Third Parties)

Z11.1 The *Contractor* warrants all design complies with the contract whether undertaken by the *Contractor* or by sub-contractors.
Z11.2 All contracts for design employed by the *Contractor* must include:
• Y(UK)3 The Contracts Rights of Third Parties) Act 1999
• A requirement for the *Contractor's* sub-contractor to hold Professional indemnity insurance to the same level as the cover specified for the *Contractor* in this Call-off contract
• A clause to give the *Client* (the Environment Agency) the right to enforce the provisions of the Contracts (Right of Third Parties) Act 1999,
• A clause to ensure that neither the *Contractor* nor their sub-contractor can alter the provisions of their sub-contract without the consent of the *Client*
• A clause to ensure that the *Client's* rights against the sub-contractor under this agreement shall be subject to the same conditions, limitations and exclusions as apply to the *Contractor's* rights against the design consultant under this agreement
• A clause to state that except as provided in clause Z11.1, the agreement does not create any right enforceable by any person who is not a party to it (Other Party) under the Contracts (Rights of Third Parties) Act 1999, but the clause does not affect any right or remedy of any other party which exists or is available apart from that Act.

Z16 Disallowed Costs

Add the following bullets to clause 11.2 (26) Disallowed costs
• was incurred due to a breach of safety requirements, or due to additional work to comply with safety requirements.
• was incurred as a result of the client issuing a Yellow or Red Card to prepare a Performance Improvement Plan.
• was incurred as a result of rectifying a non-compliance with the Framework Agreement and/or any call off contracts following an audit.

Z19 Linked contracts

Delays and additional cost on this contract resulting from the *Contractor's* fault or error on a previous contract on this project or programme will be a Disallowable cost under this contract and not be a Compensation event under this contract.

Z21 Requirement for Invoice

Add the following sentence to the end of clause 51.1:
The Party to which payment is due submits an invoice to the other Party for the amount to be paid within one week of the *Project Manager's* certificate.
Delete existing clause 51.2:
51.2 Each certified payment is made by the later of
• one week after the paying Party receives an invoice from the other Party and
• three weeks after the assessment date, or, if a different period is stated in the Contract Data, within the period stated.
If a certified payment is late, or if a payment is late because the *Project Manager* has not issued a certificate which should be issued, interest is paid on the late payment. Interest is assessed from the date by which the late payment should have been made until the date when the late payment is made, and is included in the first assessment after the late payment is made

Z22 Resolving Disputes

Delete W2.1

Z23 Risks and insurance

Replace clause 84.1 with the following
Insurance certificates are to be submitted to the Client on an annual basis.

Z30 Material Price Volatility

The *Client* recognises the ongoing pricing uncertainty in relation to materials for the period from 1 July 2021 to 30 June 2023 the *Client* will mitigate this additional cost through this clause. Payment is made per assessment based upon a general average material proportion within assessments, calculated at 40%.

Z30.1 Defined terms

a) The Latest Index (L) is the latest index as issued by the *Client*. The L, which is at the discretion of the *Client*, is based upon the issued consumer price index ((CPI) based upon the 12-month rate) before the date of assessment of an amount due.
b) The Price Volatility Provision (PVP) at each date of assessment of an amount due is the total of the Material Factor as defined below multiplied by L for the index linked to it.
c) Material Factor (MF) 40% is used, based on a general average material proportion across our programme. The volatility provision is only associated with material element. No volatility provision is applicable to any other component of costs.

Z30.2 Price Volatility Provision

Through a Compensation Event the *Client* shall pay the PVP. PVP is calculated as:
Assessment x MF x L = PVP

If an index is changed after it has been used in calculating a PVP, the calculation is not changed and remains based upon the rate issued by the *Client*. The PVP calculated at the last assessment before 30 June 2023 is used for calculating the price increase after that date.

Z30.3 Price Increase

Each time the amount due is assessed, an amount for price increase is added to the total of the Prices which is the change in the Price for Work Done to Date for the materials component only (and the corresponding proportion) since the last assessment of the amount due multiplied PVP for the date of the current assessment.

Z30.4 Compensation Events

The *Contractor* shall submit a compensation event for the PVP on a monthly basis (where applicable) capturing Defined Cost only for the PWDD increase in month. Forecasted costs should only be considered for the June 2023 period compensation event.

Assessment Date	Defined Cost?	Forecasted Cost?
31 July 2021	In period costs only	No
31 August 2021	In period costs only	No
30 September 2021	In period costs only	No
31 October 2021	In period costs only	No
30 November 2021	In period costs only	No
31 December 2021	In period costs only	No
31 January 2022	In period costs only	No
28 February 2022	In period costs only	No
31 March 2022	In period costs only	No
30 April 2022	In period costs only	No
31 May 2022	In period costs only	No
30 June 2022	In period costs only	No
31 July 2022	In period costs only	No
31 August 2022	In period costs only	No
30 September 2022	In period costs only	No
31 October 2022	In period costs only	No
30 November 2022	In period costs only	No
31 December 2022	In period costs only	No
31 January 2023	In period costs only	No
28 February 2023	In period costs only	No
31 March 2023	In period costs only	No
30 April 2023	In period costs only	No
31 May 2023	In period costs only	No
30 June 2023	In period costs only	Forecasted costs for remainder of contract

The Defined Cost for compensation events is assessed using
- the Defined Cost at *base date* levels for amounts calculated from rates stated in the Contract Data for People and Equipment and
- the Defined Cost current at the date the compensation event was notified, adjusted to the *base date* by 1+PVP for the last assessment of the amount due before that date, for other amounts.

Z31 ECC – Price Adjustment for Inflation

The *Client* recognises the ongoing pricing uncertainty with regards to inflation. The *Client* will mitigate this uncertainty through this clause.

Z31.1 Defined terms:

a) The index is Office for National Statistics (ONS) CPI (UK, 2015=100).
b) The Base Date Index (B) is the latest available index published by ONS prior to the Contract Date.
c) The Latest Index (L) is the latest available index published by ONS before the date of assessment of an amount due.
d) The Price Adjustment Factor (PAF) at each date of assessment of an amount due is 0.9((L-B)/B).

Z31.2 Application rules.

The provisions of this clause [Z31] shall apply provided that:

a) The Price for Work Done to Date is less than or equal to the total of the Prices
and
b) Inflation remains positive i.e. L is greater than B.

Z31.3 Price Adjustment Factor.

If an index is changed after it has been used in calculating a PAF, the calculation is not changed. The PAF calculated at the last assessment date before the Completion Date for the whole of the *works* is used for calculating an amount for price adjustment after that date.

Z31.4 Price adjustment Options A and B.
NOT USED

Z31.5 Price adjustment Options C and D.

Each time the amount due is assessed, an amount for price adjustment is added to the total of the Prices which is the change in the Price for Work Done to Date since the last assessment of the amount due multiplied by (PAF/(1+PAF)).

Z31.6 Compensation events.
NOT USED

Z111 ECC - Fee adjustment for non compliance with Scope

Delete existing 11.2 (10) and replace with the following clause

The Fee is the amount calculated by applying the *fee percentage* to the Defined Cost excluding the cost of Sub-contractors that have not complied with procurement by best value processes as defined in the Scope. 80% of the *fee percentage* is applied to the amount of the Defined Cost for Sub-contractors that have not complied with procurement by best value processes as defined in the Scope.

Z120 ECC – Carbon reduction

Ref. (Clause No.)	Clause words
11.2 Definitions	Add as Clause 11.2(36) (36) The Performance Table states the targets the *Contractor* is to achieve in Providing the Works and sets out the adjustment to payment if a measured performance is higher, the same or lower than its target. The Performance Table is the *performance table* unless later changed in accordance with the contract.
15.1 Early Warnings	In Clause 15.1 add as a new bullet between the second and third bullet: "• result in a target in the Performance Table not being met,"
Performance Measurements	
57	Add as Clause 57:
57.1	'From the *starting date* until the Completion Date, the *Contractor* reports to the *Project Manager* its performance against the targets in the Performance Table. Reports are provided at the intervals stated in the Performance Table.
57.2	If the *Contractor's* performance against a target in the Performance Table is not achieving or is forecast not to achieve the performance target stated, it submits to the *Project Manager* for acceptance its proposals for improving performance. A reason for not accepting the proposals is that they will not provide the improvement in performance needed to achieve the target in the Performance Table.
57.3	At the dates stated in the Performance Table, • if the relevant performance does not meet the target stated in the Performance Table, the *Contractor* pays the amount stated in the Performance Table, • if the relevant performance exceeds or meets the target stated in the Performance Table, the *Contractor* is paid the amount stated in the Performance Table.
57.4	Information in the Performance Table is not Scope.
X18	X18.5 add as a new bullet after the fourth bullet: • low performance damages if the Performance Table applies

The *performance table* is ECC-carbon-performance-table.xlsx

the Performance Table for this contract type [form, Partner, Stage] as set out in the Carbon Methodology dated 08 June 2023

Part Two - Data provided by the *Contractor*

Completion of the data in full, according to the Options chosen, is essential to create a complete contract.

1 General

The *Contractor* is

Name: BAM Nuttall Ltd

Address for communications: [redacted]

Address for electronic communications

The *fee percentage* is: Option C [redacted]

The *working areas* are: The Site, Contractor's offices whether temporary or permane

The *key persons* are

Name (1) [redacted]
Job
Responsibilities
Qualifications
Experience

The *key persons* are

Name (2) [redacted]
Job
Responsibilities
Qualifications
Experience

The *key persons* are

Name (3)
Job
Responsibilities
Qualifications
Experience

The *key persons* are

Name (4)
Job
Responsibilities
Qualifications
Experience

The following matters will be included in the Early Warning Register

2 The Contractor's main responsibilities

The Scope provided by the *Contractor* for its design is in

3 Time

The programme identified in the Contract Data is

Hebble Brook FAS Tender Programme - Contract Award 27.7

5 Payment

The *activity schedule* is

Resolving and avoiding disputes

The *Senior Representatives* of the *Contractor* are

[redacted]

X10: Information Modelling

The *information execution plan* identified in the Contract Data is

Y(UK)1: Project Bank Account

The *project bank* is

named suppliers are

Secondary Options

OPTION X2: Changes in the law

The *law of the project* is the law of England and Wales, subject to the jurisdiction of the courts of England and Wales

OPTION X7: Delay damages

X7 only

Delay damages for Completion of the whole of the *works* are [redacted] per day

OPTION X10: Information modelling

The period after the Contract Date within which the *Contractor* is to submit a first Information Execution Plan for acceptance is 2 weeks

The minimum amount of insurance cover for claims made against the *Contractor* arising out of its failure to use skill and care normally used by professional providing information similar to the Project Information is, in respect of each claim

[redacted]

The period following Completion of the whole of the *works* or earlier termination for which the *Contractor* maintains insurance for claims made against it arising out of its failure to use the skill and care is

6 year(s)

OPTION X15: The *Contractor's* design

The *period for retention* following Completion of the whole of the *works* or earlier termination is 12 years

The minimum amount of insurance cover for claims made against the *Contractor* arising out of its failure to use skill and care normally used by professionals designing works similar to the *works* is, in respect of each claim

[redacted]

The period following Completion of the whole of the *works* or earlier termination for which the *Contractor* maintains insurance for claims made against it arising out of its failure to use the skill and care is

12 years

OPTION X18: Limitation of liability

The *Contractor's* liability to the *Client* for indirect or consequential loss is limited to

[redacted]

For any one event, the *Contractor's* liability to the *Client* for loss or damage to the *Client's* property is limited to

[redacted]

The *Contractor's* liability for Defects due to its design which are not listed on the Defects Certificate is limited to

[redacted]

The *Contractor's* total liability to the *Client* for all matters arising under or in connection with the contract, other than excluded matters, is limited to

[redacted]

The *end of liability date is* 6 Years after the Completion of the whole of the *works*

OPTION X20: Key Performance Indicators (not used with Option X12)

The *incentive schedule* for Key Performance Indicators is in Schedule 17.

A report of performance against each Key Performance Indicator is provided at intervals of 3 months.

Y(UK)1:Project Bank Account

The Contractor is to pay any bank charges made and to be paid any interest paid by the *project bank*

Y(UK2): The Housing Grants, Construction and Regeneration Act 1996

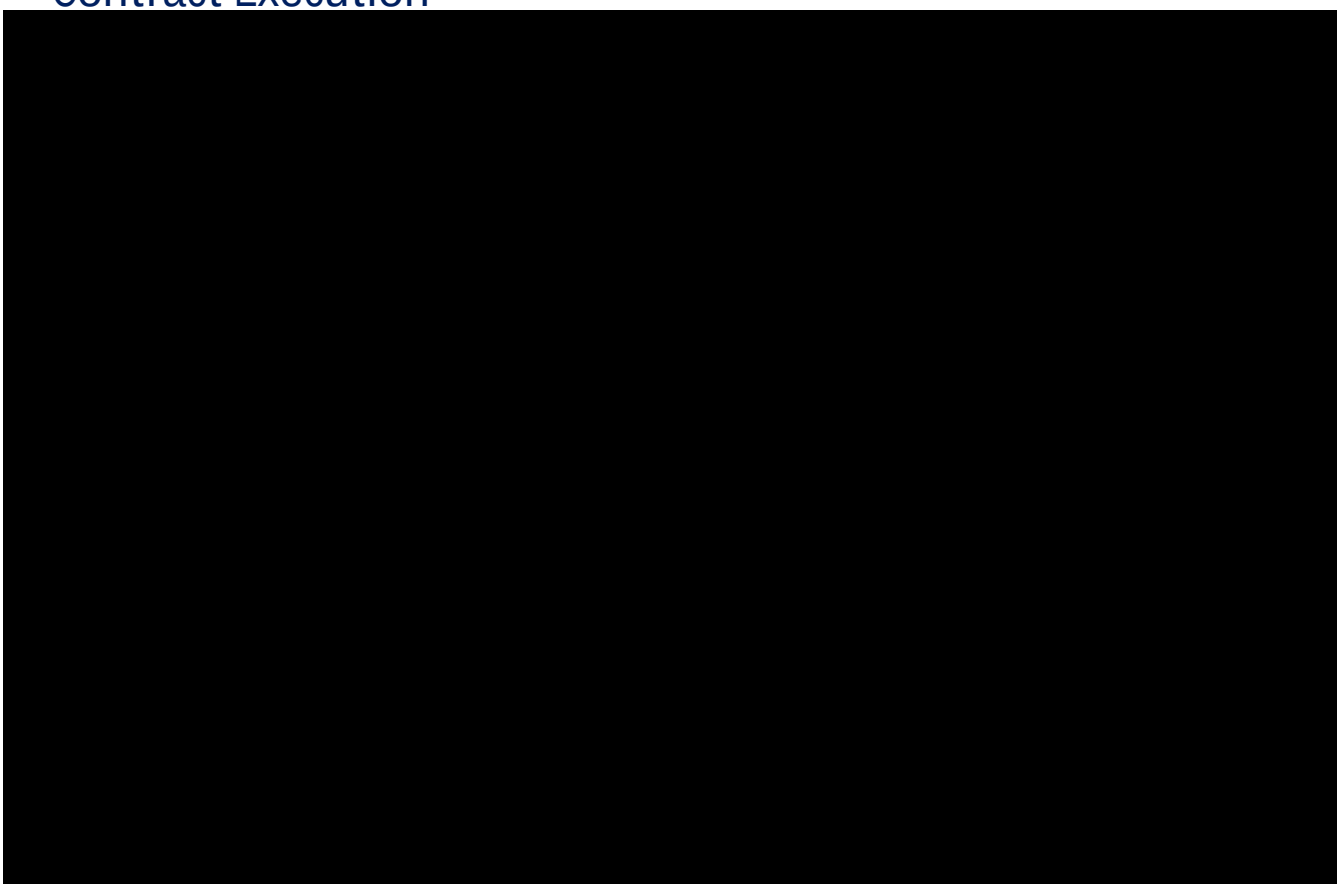
The period for payment is 14 days after the date on which payment becomes due

Y(UK3): The Contracts (Rights of Third Parties Act) 1999

term	*beneficiary*
Any	No beneficiary under this contract

term	*beneficiary*
The provisions of Y(UK)1	

Contract Execution



Contractor execution

Environment Agency

NEC4 ECC engineering and construction contract

SCOPE

Template Change Log

Revision date	Summary of changes	Version number
14 March 2023	Changes made during CDF extension	7
27 Oct 23	• Cover page instructions for EA PM updated • Change log for template changes added • S 215 updated to include defined carbon terms & reflect the agreed carbon methodology V3.1 • S 216 for reporting updated to take account of FOF and MMF alternative procurement going through CDF and ACCD Pilot and carbon terminology • S 1502 rewording for consistent terminology and clarity around ACCD Pilot • S2000 renumbering to align with NEC standards (was previously s1700)	8
09 Nov 23	• EIR references updated	8.1

Project / contract information

Project name	Hebble Brook FAS
Project SOP reference	ENV0002176C
Contract reference	[insert]
Date	20/05/25
Version number	V2.0
Author	[redacted]

Revision history

Revision date	Summary of changes	Version number

[insert date]	First Draft	V1.0
[insert date]	CSM Review	V2.0

Documents included in Scope by reference

This Scope should be read in conjunction with the documents detailed in the table below current at the Contract Date.

In accordance with clause 17.1 either party can notify of any inconsistency or ambiguity in or between these documents which are part of the contract.

In the event of conflict, this Scope shall prevail.

The *works* is to be compliant with the following: DOCUMENT	**Document Title**	**Version No**	**Issue date**
LIT 13258	Minimum Technical Requirements – Standard	V13.0	June 2024 MTR library
LIT 65150	Minimum Technical Requirements – Environment and Sustainability	V2.0	30/03/2023 MTR library
LIT 17641	Exchange Information Requirements	V3.0	EIR library
LIT 16559	SHEW CoP	V7	24/03/2025
LIT 12507	(SHE) handbook for managing capital projects	V2	23/03/2023
	Project Information Delivery Plan	**Appendix 1**	This document
LIT 14284	Carbon Operating Instruction	V6.0	22/11/2024
FHU 309	Carbon methodology	V 3.1	02/10/2023

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Note Update page numbers before issue (word ribbon, References tab, table of contents section, then select update table)

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S 100 Description of the *works*

S101 General Description of the *works*

The drawings describing the *works* are included in **Section 2000.**

The *Contractor* will establish these lines on site and confirm the position with the *Supervisor* before commencement of any construction *works*. The *Contractor* shall check the provision of any level reference points shown on the drawings and confirm the position and level with the *Supervisor* before use for setting out the *works*. The *Contractor* shall inform the *Project Manager* when all setting out reference points have been agreed, checked, and confirmed.

The *Contractor* will undertake the *works* for the Hebble Brook Flood Alleviation Scheme in Wheatley, Halifax, West Yorkshire. The *Contractor* shall undertake the *works* as stipulated in the *Client*'s consultant design. The *works* consist of realigning the Hebble Brook watercourse, constructing a bypass channel around the trash screen, installing log catchers, reprofiling the site, constructing an offline pond and landscaping post *works*.

S102 Purpose of the *works* / Outcome required

The trash screen was installed on the culvert inlet upstream by Calderdale council (CMBC) in 2014 to protect the culvert between Hebble Bridge and Lee Bridge Industrial Estate. It is still owned and maintained by CMBC, but this stretch of the watercourse is classified as Main River.

The trash screen is not in a poor condition; however, the trash screen is prone to blockage from large debris. Discussion with the council maintenance team provided us with an understanding that the trash screen on average blocks to the first tier approximately 20 times per year, this is when the water overtops the channel.

At present the council reverse a trailer with a JCB down the access path. This plant is then used to sit on the concrete slab to the left of the screen and reach over pedestrian hand railings, which are a safety feature. This has caused damage to the hand railings while not being very efficient clearing the screen. There is also a section of the left bank directly upstream of the hand railing that is used to back a van with the cage on to remove any large debris. This means the van is parked on old gabions that are beyond their asset life. The CMBC CCTV used to monitor the screen is very basic and only takes a picture of the screen every 15 minutes. It does not record what is happening on the track or impacts upstream. However, even if CMBC improved the CCTV capabilities due to the flashy nature of the catchment, by the time the maintenance team assemble it is often too late before the water overtops and backs up, flooding properties.

Hebble Brook has a documented history of flooding with the most severe recent events occurring in June 2012, 12 November 2015, and Boxing Day 2015. During the 12 November 2015 flood event, the trash screen was substantially damaged by high flows in the watercourse and from resulting large debris build up. The blockage caused large scale inundation to the Lee Bridge Industrial Estate south east of the study site.

When the trash screen blocks due to large debris, there is an increased risk of flooding to properties in the immediate area from Hebble Brook during any subsequent high flow events. Any blockage during a high flow event leads to inundation of the area and significant risk to life as well as to properties and infrastructure. The immediate risk to life and inundation would be to residential receptors, as well as some non-residential receptors. Analysis indicates that, if nothing is done the annual average damages would be £315k per annum now, rising to £411k per annum in 2040. The present value of these damages is estimated to be £20m by 2121.

The key issues pertinent to the nature of the flooding problems are listed below:

- There is no screen bypass to pass forward flow in the event of screen blinding
- The access track is lower than the upper portion of the screen and therefore is inaccessible once the upstream water levels rise due to screen blinding
- There are no adequate log catchers within the channel to stop large debris from washing downstream and damaging the screen, as per the 12 November 2015 event
- The sloped ground around the watercourse is part of an old landfill site and may be unstable and liable to failure
- The gabion baskets, designed to protect the surrounding steep landfill slope from collapsing, are in poor condition

Modifications to the existing trash screen arrangement would reduce the fluvial flood risk in the short and long term, with opportunities to optimise the Standard of Protection provided by the assets. This would lead to a reduction in potential damages to residential and non-residential properties. There would also be a reduction in potential disruption to local transport, businesses, emergency services and utility infrastructure. The reduction in risk would lead to social benefits related primarily to mental health, health effects (including risk to life) and an increase to other intangible benefits. Local residents will also benefit from a reduction in risk to their local natural and recreational area.

The primary strategic objective of the scheme is to improve the resilience of the Wheatley community to flooding as a result of the trash screen on the inlet to the Hebble Lane/Shroggs Road culvert. This will be achieved by reducing the risk of flooding to property as far as is practicable and affordable, whilst avoiding increases in flood risk elsewhere.

The strategic aims of the project are to:

- Reduce the flood risk associated with the culvert/trash screen
- Reduce the flood risk associated with the gabion wall deteriorating
- Reduce the health and safety risks associated with maintenance activities on the trash screen

- Respect the physical fabric, environment, character and setting of Wheatley and ensure environmental enhancements are included within the project to deliver Biodiversity Net Gain and to seek potential for the project to become carbon neutral
- Engage with the community and partners to support the development of the scheme and enhance the reputation of the Calderdale Flood Partnership

Critical success factors

- Reduced flood risk over the scheme appraisal period
- No increase in flood risk elsewhere
- Supports wider plans for the local economy and environment
- To reduce the Carbon output throughout the project lifecycle.
- Is affordable and employs a joined-up funding strategy
- Achieves a robustly positive benefit to cost ratio
- Minimises future maintenance & operational requirements
- Compatible with all necessary consents
- Has wide political and stakeholder support
- Is integrated with all relevant related schemes in the area
- Environment Agency staff and supply chain partners have the skills and capacity to deliver the scheme to programme and budget
- Future maintenance and management needs can be met.
- To deliver at least a 20% biodiversity net gain to the area

S 102 (1) Outcome Required

The *Contractor* shall construct the realigned channel, bypass and surrounding landscaping as stated in the detailed designs in line with benefits in full business case and results in economic efficiencies based on the project budget in accordance with the details within this Scope.

The *Contractor* shall maximise positive environmental outcomes and demonstrate mitigation has been considered.

The *Contractor* shall safeguard the Site, the *works*, products, materials, and any existing structures affected by the *works* from damage and theft. The *Contractor* is required to reinstate any damage to existing structures.

General Responsibilities

Occupational health, safety and welfare are of paramount importance to the *Client*. The *works* should be undertaken in a manner that achieves high standards of health, safety and welfare. The general responsibilities shall include the following and the requirements of the Collaborative Delivery Framework, as renewed 1st April 2023. Reference shall also be made to the relevant drawings along with other documents provided:

- The review, assessment and verification of information provided by the *Project Manager*;
- Construct the *works* in accordance with the drawings as detailed in section S2002;
- The *Contractor* shall use the Whole Life (Construction) Carbon Planning Tool (Document Reference LIT 14284 or future revisions to this). This includes all carbon tools and associated carbon reports during the contract lifecycle;
- Obtaining any topographic and ground investigation survey necessary to provide the *works*;

Works to be Undertaken by the *Contractor*

The *works* which are to be undertaken by the *Contractor* shall include the following and the requirements of the Collaborative Delivery Framework, as renewed 1st April 2023.

Environment

- The *Contractor* shall adhere to the requirements of the Environmental Action Plan rev 7, including the following and the requirements of the Collaborative Delivery Framework, as renewed 1st April 2023.
- Complete Environmental Audits in accordance with the Environmental Action Plan;
- Implement actions required by the Environmental Action Plan rev 7, maintain record of progress and further actions and sign off when actions completed;
- The *Contractor* shall produce and implement a Construction Environmental Management Plan (CEMP);
- Prior to Site establishment the *Contractor* shall undertake a pre-construction photographic survey of land and properties within the red line boundary that could be affected by the *works*;
- The *Contractor* shall implement all actions assigned to them in the Environmental Action Plan rev 7; current at the time of pricing. This document will be reviewed and updated throughout the project and any changes to it agreed with the *Client*;
- Reinstatement, including making good of areas affected by the *works* on a ‘like for like’ bases as a minimum unless stated otherwise on the drawings. The *Contractor* shall carry the *works* in such a way that minimises the reinstatement required;
- Provide tree protection measures and remove all remaining trees to construct the *works* agreed by *Client* and Environmental Clerk of *Works*.

- Provide the necessary protection to any structures directly affected by the *works* as necessary;
- The *Contractor* shall prepare and fully adhere to an invasive species management plan and method statement to avoid the spread of Himalayan Balsam as described in the Thompson Ecology document ref BAM001-026-001 dated 23 November 2023.

Consents

The *Contractor* is responsible for:

- Complying and adhering to the requirements of all necessary statutory consents,
- The *Contractor* shall inform the *Client* of any changes to the agreed working methods;
- The *Contractor* shall determine whether these changes require any amendments to existing consents/additional consents and if so, will be responsible for obtaining these prior to progressing with the *works*;
- The *Contractor* shall apply for temporary footpath closures where the *works* require closure of a footpath;
- The *Contractor* shall apply for temporary closures of public amenity spaces including parks, car parks and green spaces, where required by the *Contractor* to complete the *works*.
- The *Contractor* is responsible for obtaining the environmental permit;

Communications

- The *Contractor* shall assist the *Client* with consultation of individuals and cooperate with key stakeholders and others in relation to the *works*;
- It is important to the *Client* that the *Contractor* establish and maintain good public relations throughout the course of the contract.
- The *Client* and the *Contractor* shall work in close liaison with regard to consultation and partnership working must be adopted;
- The *Contractor* shall ensure that a nominated individual on site shall be responsible for engagement with stakeholders and members of the public, should any concerns or queries arise during the *works*. The appropriate individual shall maintain good public relations and notify the *Project Manager* of any challenging situations;
- The *Contractor* shall notify the *Project Manager* of all third-party requests for meetings;
- For enquiries which the *Contractor* is not in a position to respond, the *Contractor* shall refer these to the *Project Manager* within 48 hours of the enquiry or complaint being raised;
- The *Client* shall supply EA signage to the *Contractor* for them to erect and maintain for the duration of the *works*;

- The *Contractor* and *Client* to agree all material and branding of material to be displayed on notice boards and in any other communications;
- The *Contractor* shall obtain written permission from the *Client* before any information concerning the *works* can be published.

Construction

The *Contractor* shall:

- Identify suitable haul routes, consulting the Local Authority/Highway Authority for any particular traffic management measures that might be required;
- Maintain the existing standard of flood protection, along the line of the flood defence throughout the contract, to the time of Completion. Refer to section S201, General Constraints Floods.
- If required the *Contractor* shall identify suitable location(s) for compound facilities (including storage and welfare), and obtain any necessary permits and permissions beyond those provided by the *Client*;
- Setting out the *works* in accordance with the drawings and specifications;
- Undertake the necessary investigation and protection of the surrounding buildings, services, structures and highways during construction;
- Install temporary *works* measures to section off the working areas, ensuring that these do not increase the risk of flooding for the duration of the *works* (details to be agreed with the *Project Manager*);
- Undertake construction, installation and completion of the *works* in accordance with the contract;
- Reinstate working areas;
- Prompt submission of the *Works* Items Completion Notification as well as Acceptance Test Certificates as appropriate;
- The *Contractor* shall provide the necessary security and welfare facilities.
- The *Contractor* is to assume that the subsoil (below 300mm) depth is to be re-used as a class 4 material, with the exception of the material contaminated with invasive species.

S200 General constraints on how the *Contractor* provides the *works*

S201 General Constraints

All *works* are to comply with the requirements of the drawings and specification including the Environmental Action Plan (EAP) rev 7. The EAP shall be monitored on Site for compliance by the *Supervisor*.

Prior to the commencement of the *works*, the *Project Manager* supplies the *Contractor* with the known names and addresses of relevant landowners and occupiers.

The *Contractor* notifies the *Project Manager* of any additional working areas that he has negotiated before entering them.

The *Contractor* confines his construction operations to the working areas.

The *Contractor* supplies, erects, maintains and removes at Completion the scheme signboard.

The *Contractor* proposes the location of the scheme sign board at the Site office to the *Project Manager*.

The *Contractor* shall establish the Site boundaries on Site and confirm the position with the *Supervisor* before commencement of any *works*.

The Site boundary is included in Contract Data Part 1. Landowners are aware of the *works* and the *Contractor* shall undertake discussions with them to confirm access arrangements. Any areas not within the Site boundary into which the *Contractor* considers access is required in order to undertake the *works* shall be arranged by the *Contractor* and may only be used with written approval of the *Project Manager*.

S201 (1) Use of Site

The Site is owned by Calderdale Council. The debris screen and channel will be the *Contractor*s responsibility to maintain for the duration of the *works*.

There are nearby residential and commercial properties, structures, public open spaces and a number of underground utilities. The *Contractor* shall take careful note of these issues and undertake operations in a safe manner. The *Contractor* shall liaise with utility providers prior to commencing any *works* on Site to confirm any restrictions that they might have and advise the *Client* of any issues.

Where paths are to be closed on a temporary basis and the public diverted, the *Contractor* shall apply for consents. The *Contractor* shall ensure that diversions are signed and safely implemented.

The *Contractor* does not enter or use the Site for any purpose not connected with the *works*.

People do not remain on the Site overnight without the written agreement of the *Project Manager*.

The *Contractor* shall refer to the relevant CESWI 7 Clauses and the MTR. Section 1.39 for additional clauses on Restriction of Use of Site.

S201 (2) Access to Site

Access to the Working Areas will be arranged by the *Client*.

The *Contractor* shall arrange all relevant access and use of land required to carry out the *works* from the Highways and Local Authority. These shall be confirmed by the *Contractor* and designated in the Construction Phase Plan. Access/egress routes will be identified on the plan in addition to compound and storage areas, height restrictions, turning circles and load restrictions. Commencement of the *works* within the areas which require planning permission cannot start until planning consent is obtained.

The *Contractor* shall notify the *Project Manager* three weeks in advance of their intention to first enter or occupy the Site. The *Contractor* shall not enter any part of the Site until the access date of that part of the Site shown on the Accepted Programme, as per each served notice of entry. The *Client* in turn will alert each occupier of the impending first entry or possession of their land by serving Notice of Entry.

The *Contractor* shall provide the following information to the *Project Manager* no less than two weeks prior to intended first entry to each area of ownership or occupation with the Working Areas:

- Marked up plan of the Working Area required to support notices of entry, for each affected owner and occupier, identifying the Working Area required, access routes, and the property boundary;
- Duration of the *works* and entry requirements;
- Details of the *works* to be undertaken;
- Access arrangements;
- Pedestrian and vehicle diversion arrangements;
- Site safety requirements per Notification of Entry.

The *Contractor* shall provide appropriate measures (including fencing) to prevent public access to the Site and Working Area.

The *Contractor* shall maintain safe access and egress routes for statutory undertakers and emergency service where existing routes are affected by the *works*. The safe access and egress route shall be agreed with the *Project Manager* at least two weeks before the *works* in the relevant part of the Site commence.

S 201 (3) Services

- All consultation and liaison with Statutory Undertakers are the responsibility of the *Contractor*;
- The *Contactor* shall verify that the services shown on the drawings are complete and correct;
- The *Contractor* shall undertake detailed in situ service investigations to confirm the locations of the statutory authority services identified in the Site Information, identify any other services that have not been identified by the statutory authorities, and identify any privately owned services within the Working Areas, including accesses, prior to commencing the *works*;

- Any services found by the *Contractor* shall be identified and recorded in the Health and Safety File;
- The *Contractor* shall hand dig in the vicinity of any services to confirm their exact location and must avoid damaging them;
- The *Contractor* shall be responsible for maintaining the existing services within the Site. All existing services, including water, electricity, telephone, drains and other services are to be maintained without interruption during the *works*. The services shall not be interfered with in any way except insofar as may be specified in the contract or otherwise be agreed with the *Project Manager* as the *works* progress;
- It is understood that none of the utility service providers plan to undertake their own construction work in close proximity to the Site. Should this change, this construction work will not be under the control of the *Client* or the *Contractor*. The *Contractor* shall liaise with appropriate utility provider to ensure safe co-ordination of the *works*;
- The *Contractor* shall comply fully with the requirements of the relevant statutory authority when working in the vicinity of their apparatus, both for the permanent and temporary *works*;
- In addition, the HSE Guidance Notes HSG47 “Avoiding danger from underground services” shall be fully complied with when working in the vicinity of their apparatus;
- Should any damage occur the *Contractor* shall immediately inform the *Project Manager* and the Statutory Undertaker or owner concerned, as appropriate. The *Contractor* shall repair or replace the affected apparatus in accordance with the relevant Undertaker, Authority or owners requirements to the approval of the *Project Manager*.

S 201 (4) Working and Storage Areas

If the *Contractor* plans to use additional land outside the agreed designated Working Areas, acceptance shall be gained from the *Project Manager*. If the *Contractor* plans to use additional land outside the Site, as well as approval of the landowner / occupier and relevant authorities they shall get acceptance from the *Project Manager* and pay all associated fees.

S 201 (5) Working Hours

Normal working hours shall be defined as:

Monday to Friday between 0730 and 1830

No work shall be executed outside of these times or on weekends and Public Holidays without the prior written acceptance of the *Project Manager* and a minimum notice period of two working days is required. Such acceptance will be influenced by the time of sunset, anticipated noise, odour and artificial light emissions from the *works*, proximity to property, use of public roads and any other considerations that could cause disturbance to members of the public.

The *Contractor* shall consult with the Local/Highways Authorities regarding any working time restrictions to minimise disruption.

In addition to the above, the *Contractor* will comply with the working hours specified in the Section 61 notice for the activities defined within the Section 61.

S 201 (6) Deliveries

Prior to commencing construction, a Traffic Management Plan shall be produced by the *Contractor* and referenced within the Construction Management Plan and accepted by the *Project Manager*. The accepted Traffic Management Plan shall be adhered to throughout the construction period.

No other specific restrictions on deliveries have been put in place however the *Contractor* shall consider delivery times that will cause the least amount of disruption to traffic, the public and surrounding properties and businesses.

Deliveries and general traffic movements need to be co-ordinated accordingly and the relevant authorities consulted.

S 201 (7) Existing Assets with potentially hazardous materials

Due precaution should be exercised when working next to the Yorkshire Water assets. The *Contractor* shall make investigations as appropriate for the activity being undertaken.

The *Contractor* shall make investigations as appropriate for the activity being undertaken and update their risk assessment and method statement (RAMS) as deemed appropriate.

Ecological and environmental impacts

The *Contractor* shall adhere to all planning consent conditions.

Pollution, ecological and environmental impacts shall be managed by the *Contractor* in accordance with the Minimum Technical Requirements and the Environmental Action Plan (EAP) rev 7.

The *Contractor* shall adhere to actions assigned to them in the Environmental Action Plan rev7 current at the Contract Date. The Environmental Action rev7 Plan is to be reviewed and updated throughout the project by the *Contractor*. The *Contractor* shall inform other members of the project team whose Environmental Action Plan actions impact their *works*. All Environmental Action Plan rev7 non-compliances shall be rectified as soon as possible but at least within the timeframe set by the Environmental Clerk of *Works*.

The *Contractor* shall provide method statement(s) for acceptance by the *Project Manager* in advance of any tree/vegetation removal *works* they may propose. No trees, shrubs or hedges should be removed or pruned, other than those identified within the Tree Survey Report (Arboricultural Impact Assessment (AIA)) report, without the prior agreement of the *Client* and CMBC. Tree/vegetation removal shall be undertaken outside of nesting bird season (mid-February to September inclusive) or only following prior approval by a suitably qualified ecologist if within this period. Trees/vegetation which are to be retained shall be protected during the *works* in accordance with the Tree Survey Report and the Tree Protection Plans contained therein.

The *Contractor* shall ensure that all required tree protection measures are in place for the *works* prior to the start of any construction activities on Site.

If protected species are discovered at the Site during the *works* the *Supervisor* must be notified immediately and work in this area must cease until an instruction to resume has been issued by the *Project Manager*.

The *Contractor* shall provide details of any proposed soil conditioner for acceptance by the *Project Manager* prior to beginning any landscaping *works*.

It is important that *works* areas are seeded as soon as practicable. Ground preparation and seeding *works* should be carried out in accordance with the current version of the Landscape Specification the Landscape Specification for Environment Agency Landscape *Works* Implementation and Establishment Aftercare *Works*. Grass Sowing Seasons are as follows: Grass seed generally: April to June or August to October and Wildflower seed generally: March to May or August to October. Once seeded and construction *works* complete, a temporary fence should be installed by the *Contractor* around the embankment until the grass seed has established.

The *Contractor* shall provide environmental tool-box talks to all employees and Subcontractors and could include:

- Sensitivities of the Site including wildlife features and designated sites;
- Pollution prevention;
- Lighting; Environmental awareness;
- What to do in the event of finding:
    - Bones;
    - Archaeological artefacts;
    - Protected species and what those might be.

The use of floodlighting shall be kept to a minimum but never under any circumstances, howsoever arising, compromise safe working methods and procedures, unless otherwise accepted by the *Supervisor*.

All Site operations shall be managed to minimise waste of construction materials and maximise the recycling of waste, in accordance with the Site Waste Management Plan (SWMP).

The *Contractor* shall make site staff and Subcontractors fully aware of any specific environmental practices relevant to the Site, including the process for reporting environmental incidents specified in the Contract.

S 201 (8) Environmental Staff

The *Client* shall appoint a member of staff to act as Environmental Clerk of *Works* (ECW) to have specific responsibility for monitoring and auditing of environmental aspects on their behalf. The ECW shall audit the Site no later than three days prior to any project progress meeting and no less frequently than on a monthly basis. The *Contractor* shall ensure provision is made to escort the ECW where appropriate and provide information as requested by the ECW. The ECW shall report back to the *Client* on compliance with the Environmental Action Plan rev7 (EAP).

The *Client* may appoint a member of staff to act as Landscape Clerk of *Works* (LCW) to have specific responsibility for monitoring the landscape implementation and maintenance *works* on their behalf. If appointed the LCW will inspect the Site at key dates during the implementation *works* and at intervals during the establishment maintenance period to be agreed by the *Client*. The *Contractor* shall ensure provision is made to escort the LCW where appropriate and provide information as requested by the LCW.

The *Client* and or ECW will provide advice on the management of trees where tree protection, and/or tree *works* including felling are required. The *Contractor* shall ensure provision is made to escort the ECW where appropriate and provide information as requested by the ECW.

In the event that the ECW identifies that a tree cannot be saved due to unavoidable severance of structural roots, removal will only be with the approval of the *Client* in conjunction with the NEAS Landscape Architect.

S 201 (9) Environmental Best Practice

The *Contractor* shall plan and order all activities to assist the *Client* to achieve legal compliance and achievement of corporate goals. In addition to this general requirement, particular areas for action are:

- Avoidance of pollution of any waters;
- Avoidance of pollution of any land;
- Protection and enhancement of flora and fauna;
- Avoidance of nuisance of sounds, vibrations and dust.

The *Contractor* shall refer to the relevant CESWI 7 clauses, Control of Pollution Act 1974 and the MTR in association of environmental best practices, imported material, as well as 1.19 Emergency Arrangements and Section 12 for additional supplementary Clauses relating to the Environment.

The *Contractor* shall provide the *works* in accordance with environmental best practice and the following documents:

- BRE Green Guide to Specification;
- BRE - Materials Information Exchange;
- CIRIA, SP122 Waste Minimisation and Recycling in Construction;
- CIRIA, C513 The Reclaimed and Recycled construction Materials Handbook;
- CIRIA, C533 Environmental Management in Construction;
- Considerate Constructor Scheme;
- DEFRA, Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

The *Contractor* shall comply with the following Environment Agency Guidance Documents. The *Contractor* obtains the latest version of each of these documents from the *Client* prior to commencing the *works*:

- PPG1: General Guide to the Prevention of Water Pollution;

- PPG2: Above Ground Oil Storage Tanks;
- PPG5: *Works* in, near or liable to affect Watercourses;
- PPG6: Working at Construction and Demolition Sites;
- PPG21: Pollution Incident Response Planning;
- PPG23: Maintenance of Structures Over Water.

S 201 (10) Pollution Prevention and Control

The *Contractor* shall comply with Defra and the Environment Agency's Pollution Prevention Guidelines (https://www.gov.uk/guidance/pollution-prevention-for-businesses).

The *Contractor* shall carry out the *works* in such a way as to avoid pollution incidents. However, should any occur, procedures and measures shall be implemented to contain and limit the effect as far as reasonably practicable. Such procedures and measures will cover atmospheric, aquatic or land pollution and procedures in the event of fire.

The water quality of the watercourse shall be maintained for the duration of the *works*. The *Contractor* shall implement preventative measures to ensure that the release of material or contamination into the watercourse does not occur at any time as a result of the *works*.

The *Contractor* shall avoid concrete washout where practicable and shall comply with the Environmental Action Plan rev7 and environmental risk assessment at all times.

The *Contractor* shall prevent either uncured concrete or concrete residue from entering either still or flowing water, either directly or indirectly through runoff or surface water drainage.

Water that is used for cleaning machinery and plant shall be disposed of in accordance with waste management protocols.

The *Contractor* shall take appropriate environmental controls to ensure that dust is limited throughout the *works*.

Drip trays are to be checked daily and emptied regularly, particularly following rain.

The *Contractor* shall ensure that during working hours at least one person on the Site is trained in the use of spill kits. The *Contractor* shall take special care by the provision of suitable bunding and appropriate spill kits to contain any spillages of diesel fuel or oil stored on site.

The *Contractor* will provide spill kits for the duration of the *works*. Spill kits shall be held in the cabs of all plant/ machinery on the Site.

The *Contractor* shall carry out the *works* in such a way that emissions to air of dust and pollutants including odour are limited and that best practicable means as per BS 5228 are employed to avoid the creation of a statutory nuisance.

Measures to be considered in implementing Best Practicable Means shall be consistent with the recommendations of BS 5228 and include the following:

- Careful selection of Equipment and construction methods. Only equipment conforming to relevant national or international standards, directives and recommendations on noise and vibration emissions shall be used.
- Design and use of site hoarding and screens, where practicable and necessary, to provide acoustic screening at the earliest opportunity. The mechanisms and procedures for opening doors/gates will minimise noise, as far as reasonably practicable
- Choice of routes and programming for the transport of construction materials, spoil and personnel to reduce impact of traffic on local roads.
- Construction vehicle routing shall take account of the need to reduce noise and vibration.

All Equipment shall be properly maintained, provided with manufacturer silencers and operated in such a manner as to avoid causing any excessive noise or exhaust emission. The Construction Phase Plan (CPP) shall specify measurement locations and maximum permissible noise and vibration levels at each location.

Noise and vibration levels shall not exceed the specified levels in the CPP unless otherwise approved in writing by the *Project Manager*.

The *Contractor* shall refer to the relevant CESWI 7 clauses and the MTR Clause 1.26 on noise control.

The *Contractor* shall take measures, to the satisfaction of the *Project Manager*, to control the generation of dust on the Site in order to avoid causing a nuisance to third parties and sensitive natural receptors.

Engines shall not be left running or revved unnecessarily. Exhausts of vehicles or Equipment used for construction shall be positioned at a height to ensure appropriate dispersal of exhaust emission. All vehicles and generators used on site shall be kept in a well-maintained condition.

The *Contractor* shall take all necessary precautions to prevent the release of petroleum fumes from site plant and stored fuel oils. Furthermore, the *Contractor* shall prevent such fumes drifting into residential areas, nearby workplaces or areas of public open space.

All site staff will be trained so that they can undertake the following actions upon discovery of a pollution incident:

- Raise the alarm and contact the appropriate site staff and authorities;
- Locate the pollution control equipment;
- Deploy pollution control equipment in an appropriate and effective manner so as to contain and limit pollution until such a time as the appropriate authorities arrive on site.

All environmental incidents shall be reported to the *Project Manager* at the first practical opportunity. In the event of an Environmental Incident, the *Client* Incident Reporting Procedure will be followed by the *Contractor*. An Environmental Incident shall be defined as:

- Failure to meet an environmental target as defined in the Environmental Action Plan.
- Occurrence of an environmental impact that was not identified in the Environmental Action Plan or Environmental Statement Report.

The *Contractor* shall undertake all corrective actions, as detailed by the *Project Manager* (based on the Environmental Clerk of *Works* audit), to adhere to the current version of the Environmental Action Plan (EAP rev7) and good site practices.

- The *Contractor* will complete the BREEAM assessment, in line with the provided BREEAM scoping note (Appendix 3), based on the BREEAM V6 Technical Manual requirements. For these services 5 assessments have been scoped in. Scoping report to be provided by the *Client*.
- The *Contractor* shall provide a qualified BREEAM assessor and, where appropriate, scope the individual criteria within the assessment issues identified for agreement with the *Client.*
- The *Contractor* shall set up and undertake the assessment and evidence-gathering throughout the Services, using the BREEAM online tool via BREEAM Projects. The *Contractor* shall ensure that all of the evidence is uploaded within 6 weeks of Gateway 4 completion.
- The *Contractor* shall support the *Client* with scope submission to BRE as well as provide supporting information to the *Client* when handling verifier consultation.
- The sustainability (BREEAM) lead is an integrated member of the project team attending progress meetings, key project workshops including but not limited to design and risk as required providing an update against BREEAM targets and championing sustainability across the project team.
- The *Contractor* shall provide all evidence to the *Client* upon request, to enable programme-level external verification.

S 201 (11) Emergency Pollution Response Plan

The *Contractor* shall prepare an ‘Emergency Pollution Response Plan’ (EPRP). This plan will cover the procedures to be followed to limit the spread of pollution in the event of an incident.

The *Contractor* shall incorporate the EPRP into the Method Statement(s).

The *Contractor* shall ensure that the EPRP complements and is consistent with other environmental management documentation and health and safety procedures.

The EPRP will contain, but not necessarily be restricted to:

- Reference to the site CoSHH file;
- A full drainage plan for the site and its compounds;
- CoSHH file/CoSHH store;
- A breakdown of staff responsibilities;
- Procedures for notifying appropriate emergency services, authorities and the *Client*. This shall be in accordance with the Environmental incident and near miss reporting procedure included in the EAP;
- Provision of Site access information to the emergency services;
- Procedures for the removal of materials in the event of a flood warning.

The EPRP shall be easily accessible and a copy kept away from the main site accommodation. A notice at the entrance to each site shall be posted, indicating the location of relevant emergency instructions. A copy of the Environmental incident and near miss reporting procedure shall also be displayed at the entrance to each site. The *Contractor* shall obtain and store on site all the necessary equipment which may be required to alleviate a pollution spillage.

S 201 (12) Liaison with third parties

It is important to the *Client* that the *Contractor* establish and maintain good public relations throughout the course of the contract. The *Client* and the *Contractor* shall work in close liaison with regard to consultation and partnership working must be adopted.

The *Contractor* shall notify the *Project Manager* of all third-party requests for meetings.

The *Contractor* shall document all forms of communication with third parties and maintain the Stakeholder Engagement Plan.

S 201 (13) Dealing with water

All pump discharges shall be piped to a discharge point approved by the relevant Statutory Authority.

In accordance with the EAP the *Contractor* shall remove pumped (excluding over pumping) water by tanker. The pumped water cannot be discharged into Hebble Brook. As the pumped water is required to clear the channel in order to provide the works an exemption to this element of the EAP is necessary.

S 201 (14) Floods

The *Contractor* shall register with the Environment Agency's Flood Warning Team before commencing on the Site, and provide them telephone, email address and/ or fax numbers where Flood Warnings can be sent.

In providing the *works*, throughout the contract to the time of Completion, the *Contractor* shall maintain the existing standard of flood protection. The *Contractor*'s operations shall not reduce the effectiveness of the existing flood defences.

S 201 (15) Materials management

The *Contractor* shall ensure that a nominated individual on site has a defined responsibility for controlling and monitoring the management of materials on site, including the supervision of Subcontractors in their management of materials. The name of the individual and the management structure into which they fall shall be communicated to the *Project Manager*.

Site staff shall demonstrate good practice in materials management on site.

The *Contractor* shall organise material ordering, delivery and storage in order to incorporate industry best practice, such that:

- The length of time materials are stored on site is minimised;
- Delivered quantities can be safely and appropriately stored on site;
- Appropriate preparations can be made on site to receive the goods (e.g. storage location and handling equipment may be made ready);
- All deliveries can be met by a person authorised to check the materials delivered and sign the delivery receipt;
- Deliveries to site are checked as soon as they arrive on site, before materials are unloaded if possible;
- A protocol for refusing deliveries to site is established - for example, if the materials are damaged, if the wrong material has been delivered, and if an excess quantity has been delivered.

The *Contractor* shall comply with the relevant clauses of CESWI 7 as well as the MTR and their amendments, including:

- MTR
    - Clause 1.40 - Management of Waste
    - Clause 1.41 - Disposal of Domestic Waste

S 201 (16) Noise and vibration

Noise and vibration levels shall be limited to those noted under the Minimum Technical Requirements.

S 201 (17) Parking

Equipment parking, servicing areas and wheel washing facilities (if required) are to be located in the Site compound for acceptance by the *Supervisor*.

The *Contractor* will ensure that parking of vehicles or equipment, either visiting or working, will be parked within designated areas so as not to present an obstruction to local residents/landowners.

S202 Confidentiality

The *Contractor* does not disclose information in connection with the *works* except when necessary to carry out their duties under the contract or their obligations under the contract

The *Contractor* may publicise the *works* only with the *Client*'s written permission.

S203 Security and protection on the site

The *Contractor* shall secure the Site. The *Contractor* shall make sure the *works* do not affect the security of others.

The *Contractor* provides suitable site security measures so that no unauthorised persons can gain access to the Site.

As soon as access to or use of the Site is allowed under the Contract the *Contractor* shall erect temporary fencing to secure the site in accordance with the Minimum Technical Requirements.

All site fencing and gates shall be regularly inspected and maintained, and any defects made good without delay. Access shall be provided in temporary site fencing and gates, as necessary, for the use of the occupiers and businesses of adjacent lands.

S204 Security and identification of people

To be in accordance with the Minimum Technical Requirements.

S205 Protection of existing structures and services

There are a number of existing buildings and structures which may be affected by the *works* including:

Trees should be protected as shown in the following document:

Arboricultural Method Statement	ENV0002176C-ARU-LH-VA-MS-EN-C0400_2-S2-P01-C0400-EA3-LOD3

Protection requirements for the Yorkshire Water services in the permanent case is to be confirmed. *Contractor* to review and provide appropriate access over the assets during construction.

The area where the Yorkshire Water CSO is situated shall be avoided.

The *works* require the *Contractor* to divert the Yorkshire Water sewer shown in the following document. The diversion shall be untaken in accordance with the code for adoption. The *Contractor* shall provide Yorkshire Water with a minimum of seven days notice to all a pre-start inspection.

CMBC level monitors at the debris screen should be avoided and the camera is to be removed and re-sited close by.

Existing electricity cables on Site shall be protected if they have not been decommissioned.

The following structures within the red line boundary:

- Yorkshire Water surface water network
- Yorkshire Water sewer network
- CMBC highway wall – Hebble Lane

Services within the highway

- BT Kiosk
- Street Lighting on Hebble Lane

- Boundary / perimeter gate

All existing services are to be maintained without interruption during the *works*.

The *Contractor* shall undertake detailed in situ service investigations to confirm the locations of the statutory authority services identified in the Site Information, identify any other services that have not been identified by the statutory authorities, and identify any privately owned services within the Working Areas, including accesses. The Contactor must verify that the services shown on the drawings are complete and correct. Any services found by the *Contractor* shall be identified and recorded in the Health and Safety File.

The *Contractor* shall comply fully with the requirements of the relevant statutory authority when working in the vicinity of their apparatus, both for the permanent and temporary *works*. In addition, the HSE Guidance Notes HSG47 “Avoiding danger from underground services” shall be fully complied with when working in the vicinity of their apparatus.

S206 Protection of the *works*

The *Contractor* shall protect the *works*, Material, Plant and Equipment liable to damage either by the weather or by the method used for carrying out the *works* or by vandalism. Aside from the pumps all Equipment shall be kept in secure compounds when not being used and at the end of every shift.

Pumps

The *Contractor* shall utilise pumps with a capacity flow rate of 2m3.

The *Contractor* shall make arrangements for a diesel tank to present on site to fuel the pumps. The use of diesel and AdBlue for the pumps will need to be isolated to allow monthly assessment of its use. The diesel for the pumps does not form part of the client set target and will be recovered via a compensation event. The *Contractor* shall use mains power to power pumps if Northern PowerGrid have capacity and the timeframes are workable for the project.

In the event the *Contractor* is able to power the pumps by electricity the costs shall be recovered via a compensation event. This will include any fees and charges for an electricity connection and associated infrastructure such as a meter and meter kiosk.

The *Contractor* shall ensure the pumps are monitored during operation using 24 hours CCTV. The pump capacity is $2m^3/s$ and the *Contractor* is to arrange for flow meters to be installed in the pipework to measure the water flow. The flows are to be recorded via telemetry to provide historical information. A compensation event will be triggered if the flows exceed $2m^3/s$.

The *Contractors* is responsible for the maintenance and clearance of the pumps and an overtopping event occurring by a blockage will not be considered as a compensation event.

The *Contractors* incident / flood response plan should detail its approach to maintaining the pumps during flood events. The plan will form part the *Contractors*

Construction Phase Plan / Project Execution Plan for acceptance by the Project Manager.

The *works* are to be protected against damage specifically from vandalism and flooding.

The *Contractor* shall refer to Minimum Technical Requirements for confirmation of requirements.

The locations where water levels are to be recorded are:

- Hebble Brook at Halifax – Client location ID L1215

Any temporary defences erected by the *Contractor* as a result of a flood event shall be signed off by the *Client*.

S207 Cleanliness of the roads

Throughout the project, the *Contractor* co-operates with the Highway Authority concerning the *works* in, or access to, the highway. The *Contractor* informs the *Project Manager* of any requirements or arrangements made with the relevant authorities. The *Contractor* shall also refer to the relevant CESWI 7 Clauses and the MTR.

Existing public highways, including footpaths, used by vehicles of the *Contractor*, Subcontractors and suppliers will be kept clean and clear of all dirt, mud or other materials.

The *Contractor* promptly removes mud and debris from the highway and public access routes.

S208 Traffic management

The *Contractor* will be responsible for liaising with the Highways Authority with regards to movement of plant and material on the public highways and in the measures required for safe access and egress to and from the Site. The *Contractor* will follow the principles of CLOCS (construction, logistics and community safety).

The *Contractor* shall be responsible for any damage to existing roads, accesses, land, property or other *works*, caused by operations. The *Contractor* shall form, maintain and subsequently remove any materials, barriers and fencing required for the purpose of accessing the Site in a safe manner. The *Contractor* is responsible for keeping access routes safe for other users. All such features should be removed on completion of the *works* or as instructed by the *Project Manager*.

On completion of the *works*, or as otherwise instructed by the *Project Manager*, the *Contractor* shall return the Working Areas, accesses, roads and any other affected areas to a condition not inferior to that at the commencement of the contract.

The *Contractor* shall be responsible for obtaining all temporary closures and diversions of highways affected by the *works*.

All correspondence/liaison with the Highways Authority is to be copied to the *Project Manager* prior to the *Contractor* notifying residents of the proposals prior to them being implemented.

The Traffic Management Plan (TMP) produced by the *Contractor* shall record measures agreed including access routes, special arrangements for haulage / construction traffic management and car parking as necessary.

The *Contractor* shall consult with the Local Authority/Highway Authority for any particular traffic management measures that may be required including residential parking bay suspensions.

S209 Condition survey

Pre-Start Condition Survey

The *Contractor* shall complete a condition survey of the condition of the Site, within their red line boundary affected by the *works* prior to the access date. The *Supervisor* shall attend the survey and ensure suitable photographic records are taken as part of the survey.

The *Contractor* shall assess the requirement for permanent vibration monitoring for the duration of the *works*.

Where third party properties could be affected by construction activities, the *Project Manager* will be given at least two weeks' notice of the date of the survey and the *Contractor* will notify Others (the property owners).

The survey shall record the condition of existing highways, footpaths, structures, services, gardens, gates, fences, and trees. The *Contractor* submits a report of the survey to the *Project Manager* for acceptance within two weeks of the date of the survey. The report shall contain a photographic/video record of the Site and details of when the condition survey was completed. The survey record should be stored in the BIM archive.

Post-completion Condition Survey

The *Contractor* undertakes similar 'Post-completion condition surveys' when the work is complete and on dates agreed with the *Supervisor*. The *Supervisor* shall attend the survey. Copies of the 'Post-completion condition surveys' are distributed in the same format and to the same recipients as the Pre-starting condition surveys on Completion.

The *Client* shall complete condition surveys of residential properties only.

Where third party property post-completion surveys are undertaken by the *Contractor*, the *Project Manager* will be given at least two weeks' notice of the date of the survey.

S210 Consideration of others

The *works* are located in public open space and shall be constructed in such a way to not endanger the public.

Where practicable the *Contractor*'s methods shall be designed and selected to minimise disturbance to the general public and occupiers of adjacent premises.

Alternative arrangements shall be provided before interfering with any access to apparatus or services affected by the *works*. Affected users and occupiers shall be notified, in writing, two weeks in advance of any such interference and it shall be confirmed that alternative arrangements have been agreed.

Details of all complaints, claims or warnings of intended claims received from third parties shall be notified without delay to the *Project Manager*.

Any complaints, claims, damage or injury by owners or occupiers shall be dealt with promptly. All public relations activities shall be co-ordinated by the *Client* with the *Contractor*'s support.

The *Contractor* shall register and work to the principles of the Considerate Constructor Scheme (www.ccscheme.org.uk) for the site and dealings with the public.

S211 Control of site personnel

The *Contractor* must have and use a written procedure for the control of people working on or visiting the Site.

Site personnel to:

- Carry identification
- Hold current CSCS cards
- Be appropriately trained for the role undertaken

Only authorised people working on the Site or expected/known visitors to the Site can enter the Site and only following the *Contractor*'s Site induction.

S212 Site cleanliness

The *Contractor* keeps the Working Areas tidy and promptly removes rubbish, waste and surplus materials. Materials, Plant and Equipment are positioned, stored and stacked in a safe and orderly manner.

All site waste and surplus shall be removed from site in accordance with the Site Waste Management Plan.

The *Contractor* shall also refer to the relevant CESWI 7 Clauses and the MTR.

S213 Waste materials

The *Contractor* shall provide technical support to the Client and Project Manager; Producing and implementing a Site Waste Management Plan.

The *Contractor* shall be responsible for the removal and disposal of materials such as construction waste materials throughout the project. The *Contractor* shall keep the Site Waste Management Plan up to date throughout the *works*.

The *Contractor* shall make their Site staff and Subcontractors fully aware of any specific environmental practices relevant to the Site.

Refer to the Environment Agency Minimum Technical Requirements.

S214 Deleterious and hazardous materials

The *Contractor* shall deal with the requirements of identification and classification of deleterious and hazardous materials and develop a suitable strategy to deal with contamination/asbestos/ hazardous material.

The *Contractor* will minimise and control the use of deleterious and hazardous material.

The *Contractor* advises the *Project Manager* in writing of any substances that they proposes to bring on Site that fall within the 'Control of Substances Hazardous to Health' Regulations, or otherwise require special precautions to be taken. Such advice is to include copies of all relevant COSHH assessment sheets.

S215 Carbon

S215 (1) Carbon terminology

Carbon Terminology. For clarity the below terms are definitions for required deliverables and related data and should be used in communications about carbon.

Carbon baseline

The Carbon baseline for the project is Carbon Calculator version P03.
A copy of the baseline can be located here:
https://origin-adoddleak.asite.com/Ink/aM85d58td6ARejuBaRdL

Carbon Assessment
Carbon assessments are a deliverable of the service and defined in LIT14284 and comprise:

a) **Carbon calculations** set out in either a ERIC Carbon Modelling Tool (CMT) or Carbon Calculator (CC) file versions. ERIC CMT/CC versions for business case project stages result in overall emission figures for the project including a whole-life carbon forecast, a capital carbon forecast and a capital carbon budget. ERIC CC versions for construction result in overall figures for the project including capital carbon actuals (for construction outturn or to date) for comparison with the forecast and budget figures of earlier versions.
b) **Carbon calculations** set out in a Carbon Impact Tool (defined in the FCRM Appraisal Guidance) for the appraisal of business case options. The Carbon Impact Tool will provide carbon benefit figures in tCO2e and monetised Net Present Value that are required in the Business Case carbon tables and in the Partnership Funding Calculator (Economic Summary OM1a)
c) **Carbon Appendix** that captures the results of calculations from ERIC and the Carbon Impact Tool and provides a summary of progress made in maximising carbon reduction opportunities on the project to date as well as confidence levels for further reductions by project completion.
d) **A verification process** of the carbon assessment carried out by an EA appointed Carbon Specialist and requiring updates to the carbon calculations and Carbon Appendix as required. Verified versions of carbon assessment deliverables and their results are required to support carbon tables in the business case.

Terminology for carbon assessments:

ERIC is a PAS 2080 Compliant assessment tool that the *Client* requires *Contractor*s to use
Carbon Calculator part of ERIC application seen abbreviated to CC
Carbon Modelling tool part of ERIC application seen abbreviated to CMT
EA carbon specialist the specialist employed by EA to verify carbon assessments

1. **Verified** An output of the verification process of a carbon assessment supporting either a business case or construction completion that has been conducted by an EA carbon specialist.

2. **Business Case Carbon Appendix** Spreadsheet to capture information required by EA for carbon assessments. This document should be updated and verified to support business cases. It should be updated and verified at the end of construction and for agreed changes during construction.

Whole-life Carbon	GHG (greenhouse gas) emissions and removals calculated for a carbon assessment associated with the creation and end-of-life treatment of an asset, network or system, and including with its maintenance and refurbishment
Capital Carbon	GHG (greenhouse gas) emissions calculated for a carbon assessment associated with the construction or refurbishment of an asset, network or system.
Capital Carbon Actuals	capital carbon emitted during construction activities - for a defined period of time eg) capital carbon actuals to date eg) capital carbon actuals at contact completion eg) capital carbon actuals at project completion or eg) capital carbon actuals April 2022 to March 2023 At construction completion, an ‘as built’ version of ERIC calculations will capture outturn actuals against an asset breakdown and provide a total to compare with previous ERIC version ‘forecasts’.
Capital Carbon Budget	a decarbonisation benchmark of capital carbon emissions for a project based on the current project scope and based on expected levels of decarbonisation of the asset types set out in a carbon assessment. It is calculated in every version of an ERIC (CC and CMT) calculation and is based on generic asset types and associated rates of decarbonisation over future years.
Capital Carbon Forecast	an estimate of capital carbon emissions from a project based on the current project scope calculated using a PAS 2080 compliant carbon assessment tool. It is calculated in every version of an ERIC (CC and CMT) calculation and used to optimise for lowest carbon through the use of emission rates provided by the EA or provided by manufacturers of products (e.g. low carbon) that are outside of the EA rates (manufacturer rates will be verified by the EA).

Important! **"Carbon Forecast" and "target"** means different things in different systems and situations. Therefore, it is important in all Contract Communications to be clear which Carbon Forecast or which target is meant. Using the terminology listed here in S 215 (1) will help.

Carbon Reporting

a) Reporting on **capital carbon forecasts and budgets** via FastDraft is a monthly requirement of a service for business case project stages. The reported data will be project carbon figures from the latest ERIC calculations that consultants maintain as 'work in progress' versions to support their appraisal and design deliverables.

b) Reporting on **capital carbon actuals** to date and a latest **capital carbon forecast** for construction completion via FastDraft is a monthly requirement of a service for construction stage. The reported data will be based on evidence of embodied carbon in products supplied and construction services carried out up to the reported date and aligned to reported expenditure at the same time. See ref S216

Additional terminology for carbon reporting:

Consultant Carbon Forecast Form	Carbon forecast form in FastDraft to be completed monthly as per contract Scope requirement - reporting is for Project (not contract).
FastDraft Carbon Forecast	menu option in FastDraft can't be changed but add FastDraft to name in communications to distinguish from capital carbon forecast
Draft	Denotes any FastDraft reported data from carbon assessments that are 'work in progress' versions maintained by the *Contractor* and will not therefore be required to be verified by the EA.
Back Up Sheet	This is the colloquial name given to a "*works*heet of actual carbon and cost data" as more detailed evidence of emissions and expenditure in a reporting period. Use LIT 61271 (Lot 1 PSC) or *works*heet name in Scope and Communications

Carbon Performance Measure for contracts

The capital carbon performance measure for contracts is based on the verified results of a carbon assessment related to either business case submissions for PSC contracts or completion of construction for ECC contracts. The measure sets a performance target and bands above/below this target for rates of pay out or pay back in relation to the capital carbon forecast and budget for PSC contracts and for the capital carbon actuals and capital carbon forecast for ECC contracts.

Additional terminology for carbon performance measure:

Carbon Performance	is measured at completion of the contract from the results of the carbon assessment that has been produced as a deliverable of the contracted service and been verified and approved by the EA
Carbon Performance Tables	where carbon performance is related to the incentivisation payout / payback bands and contract type. Applied at the time the contract signed.
ECC Carbon Target	is set at a fixed % above the Capital Carbon Forecast (tCO2e) that has been verified either at GW3, or subsequently through an approved change control. It is a fixed number not a range.
Project Carbon Payback Threshold	This is the threshold at which payback to *Client* is paid as stated in the contract Carbon Performance tables.

1. The *Contractor* must aim as a strategic objective to minimise carbon.

2. The *Client* carbon assessment tools for calculating Capital Carbon Forecasts is ERIC Carbon Modelling Tool (CMT) or ERIC Carbon Calculator (CC).

3. The *Client* carbon assessment tool for calculating Capital Carbon Budget is ERIC CBUD sheet.

4. Set out opportunities for further reductions in carbon before the Project completion.

5. The Verified Capital Carbon Budget and Capital Carbon will be required in the gateway (SOC/OBC/FBC) Business Case Carbon Appendix and are required for the Carbon Performance Table and measures set out in this contract.

AD any project specific constraints.

S215 (2) Carbon responsibilities of all Parties:

1. Aim to minimise carbon emissions by:
   - **(1)** State minimised carbon as one of the strategic objectives of the contract under S 101
   - **(2)** Looking at how to reduce Capital Carbon Actuals (compared to the Capital Carbon Forecast) and how to reduce Whole Life Carbon of the asset
   - **(3)** Work collaboratively, including with Subcontractors, on lower carbon products and services that meet the project scope and deliverables
   - **(4)** Exploit opportunities for further reductions Carbon during construction.

(5) The ECC Carbon Target (Verified Capital Carbon Forecast at GW3) is the metric against which decarbonisation is measured and assessed against Playout / Payback bands set out in the ECC Carbon Performance Table at Contract Completion

(6) Exploit the most likely opportunities for further reductions to the Agreed Capital Carbon Forecast during construction.

(7) Ensure compliance with Carbon Reduction Contract Performance Measure Z120 Methodology V3.1 set out in Framework Heads-Up 349.

S215 (3) Carbon Responsibilities of the *Client*

1. Has a corporate and publicly declared target to reach net zero by 2030.

2. Will ensure FastDraft Carbon Forecast (*Contractor* Carbon Forecast Form) is submitted monthly and Verified at the appropriate times in accordance with Carbon Reduction Contract Performance Measure Z120 Methodology V3.1 set out in Framework Heads-Up 349.

3. Will Establish the ECC Carbon Target and share with the *Contractor*.

4. It is at the *Client's* discretion to decide if Scope change is significant and merits a re-assessment of the ECC Carbon Target.

5. Will consider *Contractor* request(s) to re-assess the ECC Carbon Target in reference to S 215 (3) 3.

6. On accepting a request to re-assess the ECC Carbon Target the *Client* will require the *Contractor* to provide 'updated' versions of the Carbon Appendix and ERIC and on provision of that, will work with the EA Carbon Specialist to obtain verification and provide a new ECC Carbon Target.

7. *ECC PM* and *Client* will monitor and be informed of decarbonisation progress by comparing Fast Draft Carbon Forecast to the Verified Capital Carbon Forecast

8. The *Client* may require actions from Delivery Partner to mitigate significant variances between Fast Draft Carbon Forecast and Verified Capital Carbon Forecast.

S215 (4) Carbon responsibilities of the ECC PM / Contract manager

1. Will work with EA Carbon Specialist to ensure Business Case Carbon Appendix Verification occurs at the appropriate times.

2. Will calculate PayOut/ PayBack at Completion of the Contract using the values from the ECC Carbon Performance Table in effect at the time the contract was signed utilising the 'CDF legacy & Current Contract incentivisation Calculator '

3. This calculation is to be done in parallel to (and not in series with) CDF incentivisation Pain / Gain calculations.

4. Will instruct any applicable pay-out earnt through CDF decarbonisation performance after contract completion and after the Business Case Carbon Appendix has been Verified

S215 (5) Carbon responsibilities of the *Contractor*

1. The *Contractor* should ensure they are aware of current Carbon Assessment made by the Lot 1 *Consultants*
2. Accept the ECC Carbon Target or request a re-calculation of the ECC Carbon Target
3. Cooperate in updating the Business Case Carbo Appendix and ERIC tools when requested to by the *Client* or ECC PM for
   - **(1)** agreed re-calculation of ECC Carbon Target
   - **(2)** if additional information is needed during the Verification process
   - **(3)** at Completion.
4. Save Business Case Carbon Appendix and ERIC outputs in ASite
5. Submit monthly the FastDraft Carbon Forecast (*Contractor* Carbon Forecast Form). Reporting
   - **(1)** ECC Carbon Target
   - **(2)** Capital Carbon Forecast
   - **(3)** Capital Carbon Actuals to date

S216 Reporting Requirements

S216 (1) Monthly Reporting

1. For the duration of the contract FastDraft Carbon Forecast (*Contractor* Carbon Forecast Form) is to be submitted monthly. Reporting is a Contract level on:
   - **(1)** ECC Carbon Target
   - **(2)** Capital Carbon Forecast
   - **(3)** Capital Carbon Actuals to date
   - **(4)** The above should be done in accordance with Carbon Reduction Contract Performance Measure Z120 Methodology V3.1 set out in Framework Heads-Up 349. The *Contractor* shall complete and submit the ECC-carbon-performance-table
2. For the duration of the contract, progress is to be reported monthly via LIT 13283 - Monthly work progress summary - construction stage.docx
   1. [add any additional monthly reporting]

S216 (2) Aligned Cost and Carbon Data Pilot Reporting

1. This Project requires that the LIT 61272 '*Work*sheet of actual carbon cost data' is currently paused on all monthly Applications for Payment in FastDraft. This may be restarted during the life of the contract.

S216 (3) Carbon reporting at Project delivery stages (including Completion)

1. The *Contractor* must

(1) Report the Capital Carbon Actuals (tCO2e emissions) against the ECC Carbon Target, along with reporting any further reductions in an 'As Built' Business Case Carbon Appendix supported by updated ERIC data

(2) Both 'As Built' Business Case Carbon Appendix and ERIC data is to be saved in ASite.

(3) Set out any reasons for Capital Carbon Actuals at Completion being above/below the Verified ECC Carbon Target

(4) Engage with EA Carbon specialist during the verification process and be prepared to perform updates to Business Case Carbon Appendix and supporting ERIC data if requested to do so either by the *Client* ECC PM or EA Carbon Specialist, in order to achieve a Verified Capital Carbon Actuals at Completion.

2. The ECC PM in conjunction with the *Client*

(1) Must engage with the EA Carbon Specialist to have the capital Carbon Actuals at Completion and the Business Case Carbon Appendix and the updated Capital Carbon Forecast reviewed, resulting in a Verified Capital Carbon Actuals at Completion and a Verified Business Case Carbon Appendix.

(2) Must not issue the Completion Certificate before the Capital Carbon Actuals, Capital Carbon Forecast and Business Case Carbon Appendix have been saved in ASite and Verified by EA Carbon Specialist.

(3) If the verification process requires additional actions for the *Contractor,* these must be communicated to the *Contractor* through the contract management system: FastDraft

(4) Populates Z120 and Performance Table target and measures from the verified assessment (ERIC figures).

(5) Will use the Verified Capital Carbon Actuals and Verified Capital Carbon Forecast to measure performance on decarbonisation, as set out in the decarbonisation methodology and ECC Performance table, to assess the *PayOut / PayBack* enacted through Z120 of the contract.

(6) Instruct the value of any pay out or pay back from the relevant party.

(7) Assess the final amount due and certifies payment. Uses Carbon Incentivisation Calculator to calculate any payout due to the *Contractor* or payback to the *Client*.

S300 *Contractor*'s design

S301 Design responsibility

The *Contractor* is responsible for:

- The temporary *works* design in order to deliver the *works* as set out and described in this Scope document;
- Temporary *works* design shall be provided for information to the *Project Manager* if requested;
- Obtaining all relevant consents regarding temporary *works*, changes to temporary *works*, as well as any other remaining consents to carry out the *works* such as those from Local/Highway authorities, prior to the commencement of *works*;
- All Subcontractor and supplier fabrication, production and installation drawings. The temporary *works* design in order to deliver the *works*

S302 Design submission procedure

If the *Contractor* wants to propose any alternative designs, then these are to be submitted to the *Project Manager* for acceptance at least four weeks in advance of the programmed *works* to allow time for consultation and approvals with others. The *Contractor* shall submit calculations and drawings *works* to the *Project Manager* for acceptance, as well as the necessary documentation for any amendments to existing consents previously obtained by the *Client*.

S303 Design approval from Others

Within four weeks of the *Contractor* submitting the alternative design, the *Project Manager* either accepts it or notifies the *Contractor* of reasons for not accepting.

S304 *Client*'s requirements

The *Contractor* shall adhere to the Minimum Technical Requirements for any design to be carried out by the *Contractor*.

If an alternative design is proposed, then the *Contractor* (or supplier or Subcontractor) shall provide the *works* in accordance with Scope documents.

The alternative design shall be to the appropriate, current (at the Contract Date) Eurocode, British Standard, or equivalent which shall be submitted for acceptance by the *Project Manager*.

Drawings

The *Contractor* must check each drawing and those of any Subcontractor before submitting them to the *Project Manager*. The *Contractor* must sign each drawing to certify that it has been checked. All drawings must be clearly and fully cross-referenced to the specification and the other relevant drawings.

As a minimum, all drawings submitted must carry the *Contractor*'s name and a title block with the Contract title, drawing title, *Client*'s name and a reference number forming part of a sequential numbering system for all drawings. Where drawings are

revised, the revision letter or number must be incorporated in the title block. Revisions must be clearly indicated on the drawing with the revision letter or number shown in an adjacent triangle and revision cloud.

The *Contractor* shall continually update all design drawings throughout the construction stages to record all changes and developments and maintain a drawing register or schedule.

Planning Consents and Conditions

The Client has obtained planning permission, a full copy of the decision notice can be found here https://origin-adoddleak.asite.com/lnk/MXALbjGhdnrLo5fnprXj

The development shall be carried out in complete accordance with the approved plans, unless the variation from approved plans is required by any other condition of this permission.

No demolition/development shall take place/commence until a written scheme of archaeological investigation (WSI) has been [submitted to and] approved by the local planning authority in writing. For land that is included within the WSI, no demolition/development shall take place other than in accordance with the agreed WSI, which shall include the statement of significance and research objectives, and

The programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works.

The programme for post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material. This part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the WSI.

No development shall take place until an invasive non-native species protocol shall be submitted to and approved by the Local Planning Authority, detailing the containment and control of Japanese Knotweed (Fallopia japonica) and Himalayan Balsam (Impatiens glandulifera) on site. The measures shall be carried out strictly in accordance with the approved scheme.

No development shall take place until a contaminated Land Phase II investigation as recommended in the submitted Phase I report ref ENV0002176C-ARU-00-00-RP-GT-A0800_5-S2-P01- A0800-EA3-LOD3 shall be carried out and the results submitted to, and approved in writing by, the local planning authority.

Should the phase II investigations indicate that remediation is necessary, then a remediation statement shall be submitted to and approved in writing by the local planning authority. The remedial scheme in the approved remediation statement shall then be carried out in its entirety.

Should remediation be required, a site completion report detailing the conclusions and actions taken at each stage of the works including an agreed scheme of validation works shall be submitted to, and approved in writing by, the local planning authority prior to the development being brought into operational use.

Prior to completion of the development a monitoring programme & monitoring report carried out by an appropriately qualified person shall be submitted to and agreed by the LPA. It shall include the first monitoring report and specify the frequency and timing

of subsequent monitoring reports to cover a minimum 30-year period to be submitted to the LPA. The monitoring report will include the following:

a) Confirmation of the number of habitat and river units present based on a survey at an appropriate time of year and how this compares to those stated in the Biodiversity Net Gain Assessment report ref. ENV0002176C-ARU-00-00-AS-EN-C0200_8-S2-P03-C0200- EA3-LOD3 dated 8th September 2022 by ARUP

b) Where the target condition is not yet met provide an assessment of time to target condition for each habitat and any changes to management that are required

c) Confirmation that all bird nesting and bat roosting features are in place as approved

The monitoring programme shall include details of the mechanisms by which the long-term implementation of the monitoring will be secured by the developer with the specialist ecological organisation responsible for its delivery. Monitoring reports will be submitted to the LPA as stated in the monitoring programme and where remedial measures or changes in management are required these will be referred to and addressed in the Landscape and Biodiversity Management Plan (LBMP) annual work programmes.

The submitted Hebble Brook Environmental Action Plan (EAP) rev7 shall be adhered to and implemented in its entirety throughout the construction period

The proposed development shall be carried out in accordance with the approved scheme for the mitigation and enhancement of the Hebble Brook water body, as specified in the following decision notice:

The scheme shall include, but not necessarily be limited to:

- Realignment (to the North) of the Hebble Brook channel and associated bank regrading for a length of approx. 94 m immediately upstream of the existing culvert entrance, with embedded ecological mitigation and enhancement interventions, including:
- An overall increase in channel length of approx. 5m;
- Effective removal of approx. 72m of gabions from the channel right bank;
- Provision of a variable channel width of between approx. 4 m and 8 m, to promote diversity in flow, morphology and aquatic habitat availability;
- Provision of a gravel-cobble bar along the right bank of the realigned channel, approximately 1-2 m wide, to provide marginal habitat during typical low flows.
- Provision of a natural channel bed substrate (gravel-cobble matrix), and the creation of a pool-riffle-run sequence with alternating flow depths.
- Provision of new wetland floodplain habitats, including a permanent woodland pond feature will be created on the left floodplain of the Hebble Brook, approximately 50 m upstream of the proposed realignment; and
- planting of native marginal / wetland plant and tree species.

S305 Design co-ordination

In preparing their design, the *Contractor* shall coordinate with the *Project Manager* to confirm that all consultees have been approached concerning the proposals.

In developing any temporary *works* and any alternative designs, the *Contractor* shall consult with:

- The *Project Manager*
- The *Client*'s design consultant
- Principal Designer
- Affected landowners (*Client* to lead on discussions)
- Local Planning Authority (*Client* to lead on discussions if necessary)

In preparing the design, the *Contractor* shall coordinate with the *Project Manager* to confirm that all consultees have been approached concerning the proposals.

S306 Requirements of Others

In preparing the design, the *Contractor* is responsible for obtaining and satisfying any necessary authority requirements and shall have their tacit approval prior to submission.

Obtain all relevant consents for construction activities working in and around the watercourse.

S307 Copyright / licence

The *Client* may wish to use and copy the *Contractor* - clause 22.1 of the ECC.

S308 Access to information following completion

The *Contractor* sends the *Client* any information not previously communicated on issue of the Defects Certificate. The *Client* communicates receipt of this information.

S309 Site investigation

(1) The *Contractor*	liaises with all historic environment stakeholders as required in MTR – Environmental and Sustainability standards to ensure that the heritage and archaeological risks are identified and appropriately managed. The *Contractor* obtains all necessary consents and approvals, including from the Environment Agency (NEAS)
(2) The *Contractor*	provides the *Project Manager* with the final Factual Report of the investigation in digital format.
(3) The *Contractor*	informs the *Project Manager* of the proposed *works* a minimum two weeks before the investigation is undertaken and complies with the Access to the Site conditions.

S400 Completion

S401 Completion definition

1. The following are an absolute requirement for Completion to be certified, without these items the *Client* is unable to use the *works*:

(1) Health and Safety File	Provide all information to the Principal Designer that is required for the the Principal Designer to compile the Health and Safety File
(2) Operating and Maintenance Manuals	one hard copy and one electronic version.
(3) As Built Drawings	To provide the required data and collaborate with the designer to produce the as built drawings. As a minimum this will include any variation to line, level, finish or detail that is shown on the drawings within S1700 of this Scope.
(4) Verification of	the Carbon Assessment supported by the *Client*'s latest version of the Carbon Appendix and Cost and Carbon Tool , or it's successor.
(5) As Built Carbon Appendix	Delivery of the Final Carbon Appendix, this is to be saved into ASite.
(6) Carbon Assessment	Delivery of the Carbon Assessment, this is to be saved into ASite
(7) Verification	of Carbon Assessment and Carbon Appendix by Carbon Specialist
(8) BIM Data	Transferred to the *Client* databases of BIM data
(9) Clause 11.2(2)	Work to be done by the Completion Date - The work to be done by the Completion Date is the whole of the *works*. Prior to Completion, the *Contractor* provides the following information in electronic format to the Principal Designer for inclusion in the Health & Safety File: Description of the *works*; Accurate drawings showing 'As-Constructed' details; Design criteria details of all *Contractor* design and the way in which the structures are to be managed in the future; Key structural principal and safe working loads; Plant specification details of design function and specification for all installed Plant and mobile equipment; Commissioning and training for operation & maintenance of the pumping stations and outfall structures H&S information about equipment provided for cleaning and maintaining structures; Materials used details of all Materials used, e.g. paint types, grades of steel, coatings, cement types, aggregate sources for concrete, clay sources. Data sheets are to be supplied to support the information

provided; Public utilities & services unchartered services to be marked up on record drawings; chartered service positions to be confirmed on record drawings; overhead services to be confirmed on record drawings; Methods used in construction records of how the *works* were constructed; Confined spaces records of confined spaces along with the category of confined space (low, medium or high) together with details of specific or potential hazards; Electrical safety principal points of electrical supply, degree of training and authorisation which must be undertaken before electrical apparatus can be inspected or repaired; COSHH lists substances hazardous to health & specific precautions that must be taken as a result of their presence; Information relevant to demolition of the structure in the future; Information on any unforeseen hazards encountered during construction; and Residual hazards & risk assessment. The above list is not exhaustive and reference is required to *Client*'s Health & Safety File requirements and Health & Safety file template. The *Contractor* shall make allowance in the programme for liaison with the Principal Designer and the *Project Manager* in providing the relevant information for the Health & Safety File prior to Completion.

(10) BREEAM provision of all evidence onto the BREEAM online tool.

S402 Sectional Completion definition

Not Applicable

S403 Training

The *Contractor* shall ensure that all site personnel are appropriately trained to undertake the *works* on site. All site staff shall be required to attend a site induction, during which all site staff shall be made aware of the environmental constraints of the Site, including the environmental requirements of the *works* (as set out in the Environmental Action Plan rev7 and consenting documentation) and elsewhere within this Scope.

S404 Final clean

On Completion, the *Contractor* returns the roads, footpaths and any other areas affected by the *works* to a condition not inferior to that pertaining at the commencement of the *works*. All debris, unused materials, equipment and temporary *works* are to be cleared and dismantled from the site.

S405 Security

No additional requirements.

S406 Correcting Defects

Access for the correction of any Defects is to be arranged by liaison with the *Project Manager* and the *Client*.

S407 Pre-Completion arrangements

Prior to any *works* being offered for take over or Completion the *Contractor* shall arrange a joint inspection with the *Supervisor, Project Manager, Client* (scheme *Project Manager*) and Senior User. The initial inspection shall take place a minimum of three weeks in advance of the planned take over or Completion.

S408 Take over

The *Client* or Calderdale council will not take over the Site prior to completion of the *works* unless agreed in writing.

S500 Programme

S501 Programme requirements

The programme complies with the requirements of Clause 31.2 and includes alignment and submission of the BIM Execution Plan (BEP) and Master Information Delivery Plan (MIDP).

The programme complies with the requirements of Clause 31.2 and includes alignment and submission of the BIM Execution Plan BEP and Master Information Delivery Plan (MIDP).

The programme shall cover the activities to be undertaken by the *Contractor* and other members of the project team. This should include all major project milestones.

The *Contractor* shall develop the programme to incorporate these elements:

- The *Contractor* shall have obtained all highway and footpath consents required prior to starting construction;
- The *Contractor* shall have submitted the required Operations Notice(s) a minimum of six weeks prior to commencement of the *works* for any work in a conservation area and in an area of archaeological importance;
- The *Contractor* shall ensure that any service diversions and protection measures required during the *works* have been arranged and agreed with the relevant Statutory Authority. Cost for any such service diversions are to be made by the *Client*. Any delays as a result of the *Contractor* failing to manage or take reasonable actions to allow utility providers to undertake service connection *works*, such as diversions, shall be the responsibility of the *Contractor*;
- The *Contractor* shall ensure that all actions assigned to them within the Environmental Action Plan rev7 are identified on the programme;
- The *Contractor* shall apply for Environmental Permits prior to starting construction;
- The *Contractor* issues method statements to the *Supervisor* for information in advance of carrying out items of work;
- The *Contractor* shall notify the *Project Manager* three weeks in advance of the intention to first enter or occupy each area of ownership or occupation within the Site.

S501 (1) Programme Constraints

Prior to commencing the *works* on site any pre-commencement planning conditions must be discharged to the *Contractor*.

The *Contractor* is not permitted to commence *works* until all relevant consents, permits and licenses have been obtained and pre-commencement conditions discharged.

The *Contractor* shall not carry out any tree or shrub *works* within bird nesting season without consulting with an ecologist. The nesting bird season is from mid-February to

September inclusive. The *Contractor* shall identify any additional tree clearance activities as a key milestone on the Clause 31 programme.

The *Contractor* shall submit a programme containing all deliverables to the *Project Manager* for acceptance. The *Contractor* shall allow a minimum of two weeks for review of all draft or final deliverables by the *Project Manager*, and ensure sufficient time is included to address any matters arising.

All construction methods shall adhere to any conditions imposed by any licenses granted. Construction activities shall adhere to method statements and timings as submitted and accepted by the *Project Manager* in the Construction Phase Plan.

Drawings, Calculations and Method Statements detailing the proposed temporary works design and methods of working shall be made available to the *Project Manager* on request.

S502 Programme arrangement

The *Contractor* shall submit the programme as required by Clause 31 to the *Project Manager* in Microsoft Project or P6 format and as a pdf (or as agreed otherwise with the *Project Manager*). It shall clearly identify those activities forming the critical path.

S503 Methodology statement

Prior to the start of construction work, the *Contractor* must produce a Construction Phase Plan that, amongst other things, contains:

- A schedule of activities for which risk assessments and method statements must be prepared;
- The *Contractor*'s arrangements for the preparation and approval of risk assessments and method statements;
- The schedule of risk assessments and method statements must meet the requirements of the Construction Design and Management Regulations.

The *Contractor* will be free to add to the schedule as the work progresses. The *Contractor* will ensure the risk assessments and method statements for each operation includes:

- Risk assessments of the work;
- People and resources proposed;
- Timing and sequencing of construction, materials, plant and equipment;
- Details of temporary *works*;
- Indication of activities that represent a higher level of safety, health and environmental risk;
- Safety, health and environmental controls proposed; and
- Any permit to work proposals.

The *Contractor* submits the required risk assessments and method statements to the *Supervisor* two weeks before starting the tasks to which they refer. The *Contractor*

must ensure that risk assessments and method statements are approved by the authorised individual within their own organisation before submission.

The *Project Manager* will, if necessary, request additional information to support the contract. The *Contractor* shall respond promptly to queries raised.

Method statements shall include full particulars of the methods, timing and sequence of construction.

The *Contractor* does the work in accordance with the method statement.

All work shall be carried out using techniques to eliminate any risk of structural damage to the existing environment and to minimise potential complaints about noise and vibration. The *Contractor* is responsible for all temporary *works* design and is to make due allowance in the programme for this and for any statutory approvals necessary.

S504 Work of the *Client* and Others

The order and timing of the work of the *Client* and *Others* to be included in the programme and information to be provided. Refer as necessary to sections WI 901 and WI 902.

S505 Information required

Refer to Environment Agency Minimum Technical Requirements for the requirements for monthly reporting.

S506 Revised programme

All submissions of revised programmes shall include a full explanation of any changes in sequencing and duration of the work activities from the previous accepted programme.

S507 Monthly reports

1. In managing the *works* the *Contractor* shall

1) Contribute monthly updates to the project risk register.
2) Provide input to project efficiency CERT Form.
3) Produce monthly financial updates and forecasts meeting the *Client*'s project reporting timetable together with progress reports. Monthly financial updates and forecasts to meet EA deadlines provided by no later than the 10th day of each month, or otherwise agreed at the project start up meeting.
4) Deliver a monthly progress report in the *Client*'s standard template giving progress against programme, deliverables received and expected, financial summary against programme and forecast project carbon. Construction Monthly Report. The *Contractor* is required to provide a monthly report on progress in the following format:

Highlight progress report for consultancy appointments

Monthly progress reports for construction contracts

5) Commission capital forecast profile to be entered on FastDraft monthly & Project forecast outturn project carbon profile to be entered onto FastDraft monthly. The *Contractor* is required to provide a monthly forecast on FastDraft for both carbon and cost in accordance with FHU

(5) Framework Heads Up 244 Commercial Clarification 54

(6) Framework Heads Up 256 Commercial Clarification 57

6) Attend project board meetings as required.

7) Ensure quarterly input into framework performance assessment / environmental Performance Measures.

8) Maintain and show how accurate and up to date information on the whole-life cost and carbon of options is driving optimum solutions at all stages of design development.

9) Capture lessons learnt log relevant to scheme delivery for the *Client*.

S600 Quality assurance

S601 Samples

The *Contractor* is to submit samples as requested to discharge planning conditions, a minimum of four weeks prior to being required for the *works* in order for the *Project Manager* to acquire any necessary authority approvals.

S602 Quality statement

No additional requirements.

S603 Quality management system

The *Contractor* constructs the *works* in accordance with a formal and independently audited quality management system, and in accordance with the Collaborative Delivery Framework (CDF) agreement.

S604 BIM requirements

1. The BIM Information Manager is the *Client Project Manager*
2. The *Contractor* shall meet the requirements set out in the BIM Execution Plan reference:

BIM Execution Plan	ENV0002176C-ARU-ZZ-XX-SP-Z-G1300_1-S2-P01-G1300-EA3-LOD3

S700 Test and inspections

S701 Tests and inspections

Testing and inspection of Materials and the *works* shall be undertaken in accordance with the Scope specifications. Refer to the Environment Agency Minimum Technical Requirements.

Clause 40.1, 40.2, 41.1 and 60.1 (16) Consider the following checklist for test and inspection details.

- Objective, procedure and standards to be used,
- When they are to be done,
- Where they are to be done,
- Who does the tests, and who is in attendance,
- Testing and inspection method,
- The Equipment required and who provides it,
- Access arrangements,
- Information or instructions required to be provided,
- Materials, facilities and samples to be provided,
- Involvement of specialists,
- Acceptable results and deviations,
- Test environment,
- Documents to be provided before and after the test,
- Whether or not authorisation to proceed to the next stage of the work depends on the test results.
- Are there any data tests required to ensure data required for BIM archive

The *Contractor* shall ensure imported topsoil; is tested in accordance with the current version of the Landscape Specification for Environment Agency Landscape *Works* Implementation and Establishment Maintenance *Works*, prior to delivery to the Working Area.

The *Contractor* shall ensure that all materials are tested in accordance with the Client's works specification set out in S2001.

At Completion the *Contractor* shall undertake topographical survey of all defences and provide the results to the *Client*.

S702 Management of tests and inspections

Within two weeks of the *Contractor* submitting the schedule of tests and inspections, the *Project Manager* either accepts the schedule of tests and inspections or notifies the *Contractor* of reasons for not accepting it.

S703 Covering up completed work

No operation shall be carried out or covered up without notice being given to the *Supervisor* by the *Contractor*, as required by the contract, in time to enable the *Supervisor* to make such arrangements as they deem necessary for inspection and checking.

During the execution of the *works*, the *Contractor* shall submit to the *Supervisor* full and detailed particulars of any proposed amendments to the arrangements and methods submitted.

S704 *Supervisor*'s procedures for inspections and watching tests

1. The *Contractor* shall provide suitable facilities and support for any inspections that the *Supervisor* should reasonably request.

2. The *Contractor* shall provide adequate notice of inspections required to the *Supervisor*. The notice period shall be agreed with the *Supervisor* (24 hrs notice). The *Contractor* is responsible for any delays caused by the failure of an inspection.

3. The *Contractor* shall provide 72 hours notice for a Geomorphologist to attend Site to provide geomorphological advice on in channel features and reinstatement of the channel bed.

S800 Management of the *works*

S801 Project Teams – others

The following do not have a formal role under the contract but act to advise the *Project Manager* and *Supervisor* in the undertaking of their duties.

- Environmental Clerk of *works* (ECoW) monitors the construction phase of the *works* to ensure environmental impact is minimised.
- Through the *Client,* Environment Agency Officers, provide advice on a range of operational, fisheries, ecology, landscape and regulatory issues.
- Principal Designer to ensure compliance with CDM regulations.

All of the above may visit the Site and inspect the *works* but act within the constraints of the *Contractor's* health and safety procedures.

S802 Communications

The contract is administered using the standard forms and schedules that are incorporated into the CDF Framework agreement. The primary method for the sharing of information relating to the project will be email and ASITE, Contractual communications will be managed through Fastdraft.

Monthly progress meetings are to be held on the Site and chaired by the *Project Manager* who provides an agenda and minutes the meeting. Meetings shall be attended by the *Contractor's* Project Manager, agent and QS as a minimum.

Other members of the *Contractor's* team shall attend the meeting if requested by the *Project Manager*.

The *Contractor* shall:

- Maintain a Construction Risk Register and Action Decision Log.
- Provide updated Cost breakdown, Expenditure profile and Project programme each month or at the request of the *Project Manager* and in accordance with the requirements of Cl.31.
- Lead value engineering and risk meetings as required.
- Provide sustainability and efficiency register for the *works*, which will be updated quarterly.
- Review risk register (time and cost) as part of a risk *works*hop to be led by the *Contractor* prior to commencing the *works*. Risk analysis shall include a full evaluation of all risks including base assumptions, assumptions made in the calculation of minimum, maximum and most likely values and will assess the impact of identified mitigation measures.

The *Contractor* shall develop and maintain an Emergency Contacts List for the duration of construction. Copies of the Emergency Contacts List shall be provided to the *Client*, *Project Manager*, and *Supervisor*.

The *Contractor* shall prepare Monthly progress reports shall be prepared in pdf version by the *Contractor* and provided to the *Project Manager* for distribution to the project

team a minimum of three working days in advance of each monthly progress meeting. The progress report shall include those details listed in the Minimum Technical Requirements and also

- Activities started, progressed and completed during the month;
- Activities planned for the forthcoming month;
- Summary of ground conditions encountered;
- Summary of weather conditions experienced; and
- Instructed changes to the Scope.
- Issues
- Problems encountered or anticipated.
- Public Relations
- Contacts with the public or other third parties
- Complaints or claims
- Health & safety incidents
- Environmental
- Efficiency register
- Representative progress photographs.
- Any other issue/subject requested by the *Project Manager*

Communications to and from the *Contractor* shall be administered through the Fastdraft contract management system. Storage of project files and day documents shall be via the *Client*s collaborative *works*pace on Asite.

All contract communications shall contain a unique reference number and shall be appropriately titled. Numbering logic and sequencing to be agreed with the *Project Manager*.

The *Contractor* shall attend weekly meetings where the following is to be provided:

- A summary two week look ahead
- Progress from previous week
- Risks and issue log update

S900 Working with the *Client* and Others

S901 Sharing the working areas with the *Client* and Others

The general responsibilities shall include the following and the requirements of the Collaborative Delivery Framework, as renewed 1st April 2023. Reference shall be made to the relevant drawings along with other documents provided: The review, assessment and verification of information provided by the *Project Manager*. Assisting the *Client* in consulting with others in respect of any adjoining construction projects (i.e. highway schemes in close proximity to the *works*) to establish any impact on the *works*.

If the *Client* or Others are to undertake activities on the Site between the access date and Completion, other than that stated elsewhere in this Scope, the *Project Manager* will notify the *Contractor* two weeks before.

S902 Co-Operation

The *Contractor* understands the importance of and assists the *Client* to establish and maintain good public relations during the contract and thereafter. The *Contractor* shall inform the *Client* within 48 hours of any complaint.

The *Contractor* notifies the *Project Manager* of all press or media enquiries and refers them to the *Client*.

The *Contractor* will be required to co-operate with the owners and other stakeholders whilst undertaking the *works*.

The *Contractor* shall assist the *Client* to seek all necessary permissions and approvals prior to starting the *works*. The environmental consents / permits / notices required are listed in the Consents Schedule in Appendix D of the Environmental Action Plan (EAP).

S903 Co-Ordination

The *Contractor* is required to co-operate with Others in obtaining and providing information which they need in connection with the *works*. Throughout the *works*, with the prior acceptance of the *Project Manager*, the *Contractor* shall regularly keep all affected stakeholders up to date on progress with the *works*. This shall include, Public Rights of Way, Highways/ Roads Authority, Police, Landowners and affected Stakeholders.

S904 Authorities and utility providers

Information concerning the believed location of apparatus of the Statutory Undertakers, Highway Authority, Utility Providers or *Others* is included, where available, in the Pre-Construction Information.

The *Contractor* liaises with all relevant Statutory Undertakers, the Highway Authority, Utility Providers and other owners of apparatus before designing (where relevant) or commencing any excavations and satisfies himself as to the exact position of existing apparatus which may affect or be affected by the construction of the *works*.

Where any portion of the *works* is close to, across or under any existing apparatus of Statutory Undertakers, the Highways Authority, Utility Providers or other parties, the *Contractor* temporarily supports and *works* around, under or adjacent to all apparatus in a manner designed to avoid damage, leakage or danger and to ensure uninterrupted operation.

Should any leakages or damage to existing services, highways or apparatus be discovered, the *Contractor* at once notifies the *Project Manager* and the Statutory Undertaker, Highways Authority, Utility Providers or owner concerned, as appropriate and the *Contractor* affords every facility for the repair or replacement of the apparatus affected.

Before mechanically excavating close to services, the *Contractor* undertakes full preliminary investigations by means of electromagnetic and other locating devices and hand-dug trial holes to locate the existing services. The *Contractor* notifies the *Project Manager* of the results of these investigations without delay.

The *Contractor* notifies the *Project Manager* in advance of any additional diversion or removal of apparatus, which the *Contractor* requires for his own convenience or because of his proposed methods of working. The *Contractor* arranges (including obtaining any necessary permissions, notices, licences or consents) and undertakes any such additional diversion or removal of apparatus but complies with any requirements of the *Project Manager*.

The *Contractor* provides a record drawing of services and apparatus encountered and highlights the differences with the information provided by the Statutory Undertaker and Highway Authority and issues this to the *Project Manager*.

The *Contractor* complies with HSE Guidance Notes, Statutory Undertakers, Utility Providers and private company requirements when working in the vicinity of their apparatus.

S905 Diversity and working with the *Client*, Others and the public

The *Contractor* shall provide a sign-board, available at a publicly accessible location near to the site, on which the name and contact phone number of a responsible member of the *Contractor's* staff is to be clearly displayed (see MTR). This phone number is to be monitored seven days a week (24hrs per day) and any genuine enquiries are to be responded to within 48hrs.

The *Contractor* shall keep a record of any complaints and shall notify the *Project Manager* within 48 hours on receiving a complaint.

S1000 Services and other things to be provided

S1001 Services and other things for the use of the *Client*, *Project Manager* or Others to be provided by the *Contractor*

As detailed in the Minimum Technical Requirements (412_13_SD01).

The *Contractor* shall provide, as a minimum, the accommodation described below for the *Project Manager* and the *Supervisor*:

- Use of meeting room;
- Access to a kitchen facility;
- Access to a drying room for drying and storage of site clothing;
- Access to an internet connection;
- Access to a flush toilet and shower facilities;
- The *Contractor* to erect scheme sign boards as provided by the Environment Agency;
- Car parking spaces shall be provided on a suitable hard standing adjacent to the cabins for use by the *Project Manager* and the *Supervisor*;
- An electricity supply shall be provided by the *Contractor* and an adequate supply of potable water. Both shall be made available for use by the *Project Manager* and the *Supervisor*.

S1002 Services and other things to be provided by the *Client*

The *Client* will provide the following services or provisions:

- Statutory Notices of Entry for all private land within the Site at least ten days before the possession dates;
- Provide support to all communications with Landowners;
- Scheme sign boards;
- Landowner contact information.

No other services or provisions will be provided by the *Client*.

S1100 Health and safety

S1101 Health and safety requirements

The *Contractor* shall:

- Undertake the role of Principal *Contractor* under CDM Regulations and liaise with other duty holders (including the Principal Designer) as necessary;
- Organise and chair health and safety meetings as required;
- Undertake coordination and cooperation with the *Project Manager*, *Supervisor* and Principal Designer including provision of information along with As Built drawings for the Health and Safety File;
- Update the Health and Safety File noting any incidents or near misses during construction;
- Record incidents and/or near misses in the accident book and advise the *Client* of items to be recorded on AIRSweb.
- Produce risk assessments and method statements (RAMS) for work which they will undertake.

The Principal Designer is provided by the *Client*.

A copy of the HSE Notification (F10) shall be provided to the *Contractor* by the Principal Designer prior to commencement of the *works*.

The *Contractor* shall be cognisant of the CDM Pre-construction Information, the *Client*'s Health and Safety Policies and the 'SHEW CoP' and must ensure full compliance with the *Client*'s 'Safety is Paramount' code of practice. The *Contractor* shall ensure that all parties under subcontract are cognisant of the requirements of these documents.

The *Contractor* shall prepare the Construction Phase Plan before work commences on site. The *Contractor* shall issue the Construction Phase Plan to the *Project Manager* for acceptance. The Construction Phase Plan has to be accepted by the *Project Manager* before work can commence on site.

Public Safety Risk Assessments

The *Contractor* shall produce RAMS for the *works* to include public interface.

Emergency Planning

The *Contractor* shall prepare an Emergency Action Plan for dealing with on-site or third-party emergencies that affect the *works*. This should include actions to be taken by the *Contractor* when managing flood risk.

The *Contractor* shall produce and provide to the *Project Manager* an Emergency Contact List which includes at least two names of responsible representatives of the *Contractor* and telephone numbers at which they can be contacted at all times outside normal working hours. One of these telephone numbers should be that of the construction manager.

The *Contractor* shall submit digital copies of the plan to the *Project Manager* for information only and distribution to the *Client*, within seven days of the *Contractor* gaining access to any part of the Site. The Emergency Action Plan shall include, as a minimum, the following:

- Emergency contact list all contact names, organisation, telephone numbers etc;
- Items of Equipment, Plant and Materials that will be made available for use out of hours;
- Personnel resources that will be made available for 24/7 call outs;
- Method statements for dealing with Others or Environment Agency Emergencies and the Emergency Services;
- Method statements for rescuing and recovery of Personnel, Plants, Materials, Equipment etc in the event of an emergency; and
- Method statements for dealing with pollution as a result of the *works*.

The *Contractor* shall pay particular attention to ensuring the safety of the public during the construction phase particularly when working in public open spaces.

Emergency arrangements

The *Contractor* acquaints all employees with any relevant emergency arrangements including those of the *Client*. The *Contractor* provides emergency vehicle access to properties at all times and gives access to members of the emergency services who may inspect the Site.

The *Contractor* provides access to all parts of the Site for the *Client* to undertake emergency inspections to drainage infrastructure or repairs to flood defences

Floods

Hydrometric and flood warning information is available from the Environment Agency.

The *Contractor* provides emergency 24-hour contact details to the *Client* for registering with the Environment Agency's Flood Warning Schedule 8.

The *Contractor* provides emergency 24-hour contact details to the *Client* for registering with the Environment Agency's Incident Communications Service (ICS).

The *Contractor* may obtain regular weather forecasts from the *Client*. The *Client* is not liable for any consequences if it is unable to provide either flood warnings or weather forecasts, or if they prove inaccurate.

The *Contractor* monitors river levels and weather forecasts on a daily basis and promptly provides copies of the information to the *Supervisor*.

Services

The *Contractor* shall positively locate all services when plans indicate they are in the vicinity of the *works* even if they do not appear to be located within the immediate working area.

Refer to section S201 – services.

First Aid Provisions

The *Contractor* shall provide first aid boxes appropriate to the site operations. The *Contractor* shall ensure that, as a minimum, First Aiders are trained to an Emergency First Aid at Work qualification. These First Aiders will be for the benefit of the *Contractor*'s own personnel, those of any Subcontractors and the site staff of the *Project Manager*, *Supervisor* and *Client*.

Site inductions & toolbox talks

The *Contractor* shall ensure that all personnel before entering the Site are fully inducted on site procedures and rules. Personnel shall be made aware of any relevant arrangements, including those of the *Client*, which are in existence for dealing with emergencies. The *Contractor* shall ensure that a drug and alcohol policy is in place prior to the start of the *works.*

The *Contractor* shall provide daily toolbox talks to site personnel to ensure that health, safety and environmental issues, the requirements of the contract and the design and the contents of the method statements are communicated throughout the site team.

Smoking restrictions

Smoking on the Site is permitted in areas designated by the *Contractor* but is subject to the following exclusions:

- Smoking will not be permitted whilst operating mobile plant and equipment;
- No smoking in any enclosed or semi-enclosed areas.

Reporting

The *Contractor* shall report any health and safety incidents on site using the procedure outlined in the *Client*'s "Safe Construction Code of Practice". The *Contractor* shall provide a written report within twenty-one days of the incident, unless otherwise agreed with the *Project Manager*.

The *Contractor* is to liaise with the *Supervisor* in the joint monthly submission of an agreed Health & Safety report to the *Client* and the *Project Manager*.

The *Contractor* familiarises themselves with the format of the *Client*'s standard template for the Health & Safety File and provides all information necessary for the Principal Designer to produce the Health & Safety File in said format. The Principal Designer shall also provide an up to date copy of the Health and Safety File to the *Contractor*, who retains the File on the Site.

S1102 Method statements

The following two plans shall be submitted with the first programme, and assumed to be a condition of planning:

- A construction management plan incorporating a traffic management plan;
- A construction phase plan; and
- A construction environment management plan.

All method statements shall include, but are not limited to, full particulars of methods, people, organisation, working hours, safety, Plant and Equipment, expected outputs, timing, environment, welfare, and sequence of construction including the use and

design of temporary *works*, Materials and Equipment proposed by the *Contractor*. Method statements shall be made available and contain sufficient information to enable the *Project Manager* to assess the likely detriment to either the proposed or the existing *works* or to the *Client*'s overall objective.

The *Contractor* shall programme the timely issue of method statements four weeks in advance of the relevant section of work and includes the dates in the programme when all method statements are to be submitted. The *Contractor* shall allow the period for reply for review of method statement prior to work commencing. The *Contractor* undertakes the *works* in accordance with the reviewed method statement. Review of any method statement does not relieve the *Contractor* of their contractual, and health and safety responsibilities.

S1103 Legal requirements

Construction (Design and Management) Regulations 2015 shall be followed in full to ensure the project is carried out in a way that secures health and safety.

S1104 Inspections

The *Project Manager* may inspect the *Contractor*'s compliance with the *Client*'s and/or the *Contractor*'s safety, health and environment requirements and procedures. The inspection may be unannounced.

The Principal Designer will undertake regular checks on the *Contractor*'s Health and Safety procedures including record of site inductions, tool-box talks, confined space procedures and certifications and PPE. The *Contractor* shall make available within two working days all relevant Health and Safety information pertaining to this contract e.g. records of site induction, tool-box talks, procedures etc. for inspection by the Principal Designer.

S1200 Subcontracting

The *Contractor* may subcontract work using an NEC contract.

S1201 Restrictions or requirements for sub contracting

The *Contractor* shall submit to the *Project Manager* for acceptance all proposed sub-*Contractor*s including a copy of the proposed sub-contract. The *Contractor* shall complete the submission for acceptance and obtain a response from the *Project Manager*, prior to entering into contract with the proposed Subcontractor.

S1202 Acceptance procedure

Clauses 26.3 and 11.2(25) (Options C and E) State any specific submission and acceptance procedures for the proposed subcontracts not based upon the NEC contract. The basic requirement for submission and acceptance is dealt with in subclause 26.3

S1203 Procurement of Subcontractors

Sub-*Contractor*s need to be selected using best value processes.

This requires the *Contractor* three competitive tenders for all work in excess of £25,000.

The only exception to this is work which has been accepted (in writing) by the hub Commercial Services Manager for strategic suppliers or for emergency work.

S1300 Title

No additional requirements under this heading

S1301 Marking

Not Applicable

S1302 Materials form excavation and demolition

The *Contractor* has title to the Materials from excavation and demolition, excepting those required in the *works*. Disposal of all materials shall be in accordance with statutory requirements. All deleterious material resulting from the *works* shall be disposed of in accordance with the statutory requirements. Before disposing of any material, the *Contractor* submits to the *Supervisor* details of the proposed disposal area and the type of haul plant to be used together with the route to be adopted.

S1400 Acceptance or procurement procedure (Options C, D, E and F)

Not used.

S1500 Accounts and Records (Options C,D, E and F)

S1501 Additional Records

Clause 52.2 (Options C) lists the additional records to be kept by the *Contractor*. This may include but not be limited the following:

1. The *Project Manager* and the *Supervisor* use the standard contract administration forms which are provided to the *Contractor* in digital format by the *Project Manager*.

2. All submissions required from the *Contractor* under the contract are to be numbered sequentially and use the '*Contractor*'s Submission' form.

3. The *Contractor* and *Project Manager* jointly maintain chronological indexes of each of the above items through Fastdraft contract management system.

4. The format and presentation of records to be kept are to be accepted by the *Project Manager*.

5. The *Contractor* submits monthly progress reports to the *Project Manager*, on a regular date to be stated by the *Project Manager*. See communications section for more detail.

6. In addition to the photographs taken during 'pre-starting condition surveys' the *Contractor* is to take regular photographs of the work as it progresses and as further required by the *Project Manager* or *Supervisor*.

7. The photographs are to be taken by a competent photographer using a digital camera. All photographs are to be date stamped and filed electronically in a chronological and identifiable manner. The photographs are to be submitted in electronic format to the *Project Manager* and *Client* on a fortnightly basis.

8. Upon completion, the *Contractor* is to ensure that all photographs have passed to the *Project Manager*. They become the property of the *Client*. The *Contractor* ensures that no use is made of the photographs without the written approval of the *Client*.

9. The following additional records are to be kept by the *Contractor*:

- Timesheets and Site allocation sheets, which should be submitted with monthly applications. The Project Cost Tool (PCT) will be applicable on this project and both defined costs and forecasts must be consistent with CDF Framework Agreement
- Equipment records. The PCT will be applicable on this project and both defined costs and forecasts must be consistent with CDF Framework Agreement.
- Forecasts of the total Defined Cost. The PCT will be applicable on this project and both defined costs and forecasts must be consistent with CDF Framework Agreement Schedules. Specific

procurement and cost reports. The PCT will be applicable on this project and both defined costs and forecasts must be consistent with CDF Framework Agreement.

S1502 Application for Payment / Invoice

The *Contractor* is required to be able to provide evidence of costs in the following format:

LIT 61272 *Works*heet Actual Carbon and Cost data CDF Lot 2

This is paused but may restart during the life of the contract.

S1502 (1) Appropriate Sheets

Where the Contract is:

a. included in the Pilot the *Contractor* needs to complete the required sheets of the version being used at that time up to April 2024.

b. ALL contracts the *Contractor* needs to complete the required sheets of the version being used at that time from April 2024.

FastDraft Carbon Forecast (Monthly Reporting) provided via *Contractor* Carbon Forecast Form in FastDraft

The *Contractor* Carbon Forecast Report must contain

(1) Capital Carbon Actuals to date,

(2) (latest) Capital Carbon Forecast (based on actuals and remaining emissions to outturn) and

(3) (Latest) ECC Carbon Target

The *Contractor* Carbon Forecast Report may be supported by details of actual emissions to date against an agreed breakdown of asset/service/product lines taken from the (latest) Verified Capital Carbon Forecast.

S1600 Parent Company guarantee (Option X4)

No additional requirements.

S1700 Performance Bond (only applicable to with X13)

Not used

S1800 Advanced Payment Bond (only applicable with X14)

Not used

S1900 Low Performance Damages (only applicable with X17)

Not used

S2000 *Client's* work specifications and drawings

S2001 *Client's* work specification

This work specification should be read in conjunction with the version of the Minimum Technical Requirements (MTRs) current at the Contract Date. This includes the *Client's* Minimum Technical Requirements version 7 (412_13_SD01); including the Environment Agency's MEICA Standard Specification (369_13); Environmental Sustainability, Design & Management (801_14); Cultural heritage & Archaeology Standards (801_14_SD01); Landscape and Environmental Design (801_14_SD02).

In the event of a conflict between the Minimum Technical Requirements and the *Works* Specification – Special Clauses, *Works* Specification – Special Clauses shall prevail.

The following reports and specifications form a part of the *works* specification:

Document Code	Document Title	Version No.
ENV0002176C-ARU-00-00-SP-LD-B0200_1-S2-P02-B0200-EA3-LOD3	Hebble Brook Flood Alleviation Scheme - Civil and Structural Specification	P02
ENV0002176C-ARU-00-00-SP-GT-A0800_4-S2-P04-A0800-EA3-LOD3	Hebble Brook Flood Alleviation Scheme – Earthworks and Piling Specifications	P04
ENV0002176C-ARU-00-00-AS-GT-A0300_1-S2-P01-A0300-EA2-LOD2	Hebble Brook Flood Alleviation Scheme - Topographic Survey Specification	P01
ENV0002176C-ARU-00-00-SP-GT-A0800_2-A2-C03-A0800-EA2-LOD2	Hebble Brook Flood Alleviation Scheme - Ground Investigation Specification	C03
ENV0002176C-ARU-00-00-DS-LD-B0400_1-S2-P01-B0400-EA3-LOD3	Hebble Brook Flood Alleviation Scheme - Design Philosophy Statement	P01
ENV0002176C-ARU-00-00-PL-EN-C0600_2-S2-P06-C0600-EA3-LOD3	Hebble Brook Flood Alleviation Scheme – Environmental Action Plan	P06

All temporary *works* designs shall be prepared and reviewed in accordance with "Operational Instruction 300_10_SD14: Designers' safety, health and environmental Red Amber Green list". The *Contractor* shall design Temporary *Works* to be of adequate strength and stability.

The *Contractor* provides the *works* in accordance with environmental best practice. The *Contractor*'s attention is drawn to the following documents:

- Environment Agency, 155_04_SD347, Safety is Paramount – Constructing a better environment;
- Environment Agency, 677_15, SHEW CoP – Constructing a Better Environment;
- BRE – Green Guide to Specification;
- BRE - Materials Information Exchange.
- CIRIA, SP122 – Waste Minimisation and Recycling in Construction (practical guidance);
- CIRIA, C513 – The Reclaimed and Recycled construction materials Handbook;
- CIRIA, C533 – Environnemental Management in Construction;
- Considerate Constructor Scheme;
- BS 5837: 2005 Trees in relation to construction - Recommendations;
- Construction Code of Practice for the Sustainable Use of Soil on Construction Sites – September 2009, DEFRA.

S2002 Drawings

General Arrangement Drawing Sheet 1	ENV0002176C-ARU-00-00-DR-LD-B1300_4-A4-C01-B1300-EA3-LOD3
General Arrangement Drawing Sheet 2	ENV0002176C-ARU-00-00-DR-LD-B1300_12- A4-C01-B1300-EA3-LOD3
Cross Section Drawing sheet 1	ENV0002176C-ARU-00-00-DR-LD-B1300_5- A4-C01-B1300-EA3-LOD3
Cross Section Drawing sheet 2	ENV0002176C-ARU-00-00-DR-LD-B1300_13- A4-C01-B1300-EA3-LOD3
Cross Section Drawing sheet 3	ENV0002176C-ARU-00-00-DR-LD-B1300_14- A4-C01-B1300-EA3-LOD3
Cross Section Drawing sheet 4	ENV0002176C-ARU-00-00-DR-LD-B1300_15- A4-C01-B1300-EA3-LOD3
Proposed Sewer Location and Site Plan	ENV0002176C-ARU-00-00-DR-LD-B1300_16-A4-C01-B1300-EA3-LOD3
Existing and Proposed Sewer Diversions Longitudinal Sections	ENV0002176C-ARU-00-00-DR-LD-B1300_17-S2-P04-B1300-EA3-LOD3
Proposed sewer diversion manholes and details	ENV0002176C-ARU-00-00-DR-LD-B1300_18-A4-C01-B1300-EA3-LOD3
Access Road Plan, Sections and Details	ENV0002176C-ARU-00-00-DR-LD-B1300_19- A4-C01-B1300-EA3-LOD3
Retaining Wall Arrangement	ENV0002176C-ARU-00-00-DR-LD-B1300_20- A4-C01-B1300-EA3-LOD3

Long Section Left Bank Retaining Wall and Details	ENV0002176C-ARU-00-00-DR-LD-B1300_21- A4-C01-B1300-EA3-LOD3
Course Screen Plan and Section Detail	ENV0002176C-ARU-00-00-DR-LD-B1300_23- A4-C01-B1300-EA3-LOD3
Bypass Screen Detail	ENV0002176C-ARU-00-00-DR-LD-B1300_25- A4-C01-B1300-EA3-LOD3
Typical Indicative Sections	ENV0002176C-ARU-00-00-DR-LD-B1300_26- A4-C01-B1300-EA3-LOD3
Pile General Arrangement	ENV0002176C-ARU-00-00-DR-LD-B1300_28- A4-C 01-B1300-EA3-LOD3
By-pass General Arrangement and Details	ENV0002176C-ARU-00-00-DR-LD-B1300_30- A4-C01-B1300-EA3-LOD3
Surface Water Pipe Headwall Detail	ENV0002176C-ARU-00-00-DR-LD-B1300_31-A4-C01-B1300-EA3-LOD3
Sewer Manhole Protection	ENV0002176C-ARU-00-00-DR-LD-B1300_39-A4-C01-B1300-EA3-LOD3
Pile Cap RC Details	ENV0002176C-ARU-00-00-DR-LD-B1300_50-A4-C01-B1300-EA3-LOD3
Pile Cap RC Bar bending Schedule	ENV0002176C-ARU-00-00-SC-LD-B1300_51-A4-C01-B1300-EA3-LOD3
Red Line Boundary Plan	ENV0002176C-ARU-00-00-PL-LD-B1300_15-S2-P01-B1300-EA3-LOD3

S2003 Standards the *Contractor* will comply with

The *Contractor* should carry out their work using the following additional guidance, beyond guidance that should be followed for all CDF Framework call off contracts listed in "Documents included in the Scope by Reference".

Ref	Report Name	Where used
LIT 57807 11/02/2025	Summary Guide: Delivering Low Carbon Concrete V2.0	Concrete works
LIT 57808 23/12/2021	Carbon reduction in the use of concrete: A compendium of relevant research V1.0	Concrete works
C786F	Culvert, Screen and Outfall Manual (2019)	Screen works
SD6051 12.10.2022	BREEAM Technical Manual Requirements (V6)	Construction sustainability scheme
LIT 61272	CDF Lot 2 *Works*heet actual cost and carbon data CDF Lot 2	Cost and Carbon when taking part in ACCD Pilot and or roll out

S2004 Appendix with additional standards the *Contractor* will comply with

The *Contractor* should carry out their work using the following guidance.

Appendix 1 BIM Protocol – Production and Delivery Table

Appendix 2 BIM Protocol – Employers Information requirements

Appendix 1 – Information Delivery Plan (IDP)

The *Contractor* shall adhere to the Environment Agency's Exchange Information Requirements (EIR) framework level minimum technical requirements.

All *Client* issued information referenced within the Information Delivery Plan (IDP) requires verifying by the *Contractor* unless it is referenced elsewhere within the Scope.

The *Contractor* shall register for an Asite Account and request access to the project *work*space to view the IDP and update to create the MIDP.

Guidance on the IDP can be found here

Create the IDP on Asite and embed a PDF version as Appendix 1.

https://www.asite.com/login-home

Appendix 2 – Visualisation scope

Guidance on visualisation can be found here

A tool to aide in the identification and scoping of visualisation can be found in knowledge management https://adoddleak.asite.com/lnk/5A95rLxSkL7gEpunXgb. Create a scope of visualisation requirements if needed and embed a PDF output here as Appendix 3.

Visualisation e-learning can be found on learning zone. Search visualisation.

Appendix 3 – BREEAM Scoping note

CEEQUAL Project Scoping Advice Note

This advice note outlines the CEEQUAL Project Scoping process that has been undertaken and includes:

- Project overview.
- Summary of CEEQUAL scoping decisions to assessment issue level.
- Summary of consultation undertaken as part of the CEEQUAL scoping process.

Project Name	Hebble Brook flood alleviation scheme
Location	Hebble Brook, Halifax
Project Objectives	To reduce the current level of flood risk to properties along Hebble Brook. The trash screen in Hebble Brook was damaged in previous flood events and resulted in a large amount of debris build-up. The project objectives include ensuring the assets can be accessed safely following a flood event, seeking opportunities to reduce the risk of slope failure and avoiding detrimental impacts on at-risk areas downstream. The project will also seek environmental opportunities in the river channel such as habitat creation and improvement of WFD potential.
Project Description	The scheme will be designed to reduce vulnerability of the existing system and improve access following a flood event. This is likely to include raising access and a flow diversion channel.
Project Cost	<£2m
Delivery Timescale	October 2020 – March 2021
Stage of project when advice note completed	Post-SOC
Outline of information which forms basis of scoping advice note	Scoping has been based on a site visit and desk based screening.

Hebble Brook is located just outside Halifax to the north. There is an existing trash screen on Hebble Brook which is at risk of blockage, leaving the residential area and business park surrounding Hebble Brook at risk of flooding. The trash screen is at a culvert inlet and is maintained by CMBC. The screen is located at the bottom of a steep valley and gabion baskets are located adjacent to protect the watercourse from scouring into the steep slope leading to collapse onto the screen. Access to the site is via a track from Hebble Lane. The trash screen was replaced in 2016 by CMBC

following two flood events and remains in good condition. However, the risk of blockage remains.

The objective of the scheme is therefore to reduce the risk of flooding caused by blockages of the trash screen by installing a bypass, ensure the asset can be accessed safely by raising the access route to the screen, seek opportunities to reduce the risk of slope failure and create environmental opportunities. The scheme will be designed to provide protection in a 1 in a 100 year event. Construction is expected to be short in duration running from October 2020 to March 2021.

In line with EA CEEQUAL scoping draft guidelines, the level of CEEQUAL assessment should be proportionate to the value, scale and impact of project.

The delivery timescale is expected to be 6 months, with an estimated value of <£2 million, and low environmental risk, this scope has included 5 of 30 issues from 4 of the 8 categories. Priority has been given to those categories and issues which are most relevant and add most value to the project in delivering sustainable outcomes, as well as considering the outline design, a site visit and desk-based assessment.

The Hebble Brook CEEQUAL scoping has been refined through consultation with the project team. A summary of the rationale behind the scoping decisions is outlined below.

CEEQUAL Category (Technical manual v6)	Assessment Issue	Scoping decision	Rationale
Management	1.1 Sustainability leadership	Out	Sustainable development is critical to any scheme, and it is crucial that environmental, social and economic needs are considered and appropriately managed throughout the project. However, given the small scale of the project, other assessment issues are considered to provide greater opportunity and add more value to the project and therefore this has been scoped out.
	1.2 Environmental Management	In	There are not anticipated to be any significant environmental effects as a result of the proposed development. However there is potential for impacts on the environment, therefore this issue has been scoped in to ensure consideration is given to assessing environmental impacts and identifying opportunities for enhancement, as well as ensuring implementation of environmental improvement measures.

	1.3 Responsible Construction Management	Out	Scoped out as although there are some residential properties close to the proposed works, the site is located on private land away from close proximity to neighbours. The contractor will address any potential adverse effects through good construction standard practice. Therefore, given the small scale of the project and the number of assessment issues considered proportionate, value can be better added elsewhere.
	1.4 Staff and supply chain governance	Out	The principle contract is through the CDF, and it is important that ethical procedures are followed throughout the project. However given the small scale of the project and the number of assessment issues considered proportionate, value can be better added elsewhere and this issue has been scoped out.
	1.5 Whole life costing	Out	Whole life costing is an important element of any scheme. The EA and CMBC will work together to ensure these principles are considered throughout the project. However given the project size and environmental risk, only a small number of assessment issues are considered proportionate so this issue has been scoped out as value can be better added elsewhere.
Resilience	2.1 Risk assessment and mitigation	Out	Scoped out as although reducing flood risk is a core element of the scheme and there is a need to consider climate change over the design life of the defence, other assessment issues are considered to add more value given the scale of the project.
	2.2 Flooding and surface water run off	Out	Scoped out as reducing flood risk is one of the main objectives of the scheme. Therefore, given the scale of the project and the number of assessment issues considered proportionate, other issues will add more value to the project.

	2.3 Future needs	Out	Climate change is likely to increase flood risk around Hebble Brook, however work to prevent blockages to the trash screen and improve access during flood events will help alleviate flood risk, including with an allowance for climate change. Therefore this issue has been scoped out as other assessment issues are more relevant and will add more value to the project.
Communities and Stakeholders	3.1 Consultation and Engagement	Out	The location of the works is in close proximity to a number of residential properties and local open spaces. However, this issue has been scoped out as the site is not visible from much of the surrounding area. There is also limited opportunity for community influence due to the nature of the site and the proposed works. Community engagement is standard EA practice and will be ongoing throughout the scheme, therefore value could be better added by scoping in different assessment issues.
	3.2 Wider social benefits	Out	Scoped out as the area of work is small, on private land, with restricted visibility. There is very limited opportunity to provide benefits to the local community, other than reducing flood risk. A CEMP will be produced to prevent any negative social impacts during construction.
	3.3 Wider economic benefits	Out	Scoped out as this is an improvement project so therefore unlikely to be able to provide any economic benefit. Properties around Hebble Brook will benefit from improved flood defence which could have subsequent economic benefits.
Land and Ecology	4.1 Land use and value	Out	Scoped out as the site is relatively small and constrained with minimal opportunity to enhance the site.
	4.2 Land contamination and remediation	In	Hebble Brook runs through steep sided ground which is part of an old landfill site and has a potentially weak structure making it liable to failure. Gabion baskets protecting the slope are in poor condition

			making the area further at risk. This assessment issue has therefore been scoped in to ensure any contaminated land is appropriately used and remediated.
	4.3 Protection of biodiversity	In	Protection of biodiversity is an important consideration in any scheme. The site is located in a wooded area with a variety of nearby open spaces and habitats, therefore this issue has been scoped in. The scheme potentially includes a bypass channel and raised access to the existing trash screen, therefore protecting and mitigating any biodiversity losses is a crucial consideration throughout the duration of the project.
	4.4 Change and enhancement of biodiversity	Out	Scoped out as there are limited opportunities to enhance biodiversity given the site constraints. However, the EA is committed to biodiversity net gain and therefore small scale gains will be considered during the design stage.
	4.5 Long term management of biodiversity	Out	Scoped out as limited management will be required long term for this scheme.
Landscape and historic environment	5.1 Landscape and visual impact	Out	Scoped out as the site is not visible from the majority of the surrounding area with limited views of the site due to a significant number of trees and steep sided slopes. Therefore it is unlikely that the scheme will have any significant visual impacts and as such has been scoped out.
	5.2 Heritage assets	Out	There are no designated heritage assets within the vicinity of the proposed works. This issue is therefore not considered relevant and has been scoped out.
Pollution	6.1 Water pollution	Out	Scoped out as although works will be along Hebble Brook and there is a risk of water pollution during the construction phase of the project, this will be managed through pollution prevention best practice and therefore value could be better added by scoping in other assessment issues.

	6.2 Air, noise and light pollution	Out	Scoped out. Although construction traffic has the possibility of causing air and noise pollution, this will be managed through good construction traffic management practice. Noise pollution could be caused construction operations, however the works must fall within the limits expressed in the EA's MTR's, and all works will be undertaken during normal working hours. There will be no night time working, therefore light pollution is not considered to be relevant.
Resources	7.1 Strategy for resource efficiency	Out	Scoped out as this is a small scale project with limited resources required. A resource strategy is considered to be disproportionate to the size of the project. Best practice will ensure that materials are re-used where possible. No resources are required during operation of the defence.
	7.2 – whole life carbon emissions	In	Inclusion of this assessment issue is mandatory for all EA projects and is scoped in to ensure projects meet e:mission targets and the EA's target for net zero.
	7.3 Environmental impact of construction products –	Out	This assessment issue has been scoped out as value could be better added by scoping in other assessment issues. Carbon calculations will be undertaken throughout the design of the scheme as is EA standard practice.
	7.4 Circular use of construction products	Out	Construction products will be chosen to prevent unnecessary replacement. There is limited opportunity for re-use of material on site therefore this assessment issue is not considered to add value to the project and has been scoped out.
	7.5 Responsible sourcing of construction products	Out	Although this is an important issues with construction products required, this is a small scale project so it is unlikely to add significant value and has therefore been scoped out. Products will be sourced responsibly as best practice.

	7.6 Construction waste management	Out	Scoped out as waste management can be effectively dealt with through the use of a waste management plan for a project of this scale where limited waste will be produced.
	7.7 Energy use	Out	Scoped out as once operational, the flood defence will not use any energy. As the project is small in scale with a short construction programme, it is not anticipated that significant energy use will occur during construction.
	7.8 Water use	Out	Water use will not be an issue during operation, therefore water efficiency cannot be considered during the operational lifetime of the asset and has been scoped out. As the project is small in scale with a short construction programme, it is not anticipated that significant water use will occur during construction.
Transport	8.1 Transport networks	Out	Scoped out as there are already good transport links around the site and in Halifax and therefore there is limited scope for improvement of nearby transport networks. The project is small in scale and will have minimal effects on the transport network once operational. The site is on private land and therefore nearby public rights of way will not be impacted by the works.
	8.2 Construction logistics	In	Scoped in as the site is located down a small, off-road track from Hebble Lane close to a number of residential properties. Due to the steepness of the valley, access to the site may pose an issue for larger vehicles. Therefore it is crucial that construction traffic is an considered and managed throughout the duration of the scheme.

CEEQUAL Scoping consultation log			
Action	**Action completed by**	**Name (s)**	**Date**

Undertake CEEQUAL Scoping	NEAS EPM	[redacted]	04/06/2020
Agree scope and proportionality of Scoping with project team	NEAS EPM in consultation with EAPM, NEAS CEEQUAL Assessor and Supplier CEEQUAL Assessor	[redacted]	
Draft Final CEEQUAL Scoping note	NEAS EPM		
Final CEEQUAL Scoping note reviewed and approved	NEAS CEEQUAL Project Assessor	[redacted]	21/09/2020
Handover to Supplier	NEAS EPM	[redacted]	2020