Framework:	**Collaborative Delivery Framework**
Supplier:	**BAM Nuttall Ltd**
Company Number:	**00305189**
Geographical Area:	**North East**
Contract Name:	**Mitford Flood Storage Reservoir S10 Works**
Project Number:	**ENV0005889C**
Contract Type:	**Engineering Construction Contract**
Option:	**Option C**
Contract Number:	**C25910**
Stage:	**Other**

[redacted]

ENGINEERING AND CONSTRUCTION CONTRACT under the Collaborative Delivery Framework
CONTRACT DATA

Project Name Mitford Flood Storage Reservoir S10 Works

Project Number ENV0005889C

This contract is made on 06 September 2024
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
  NEC4 ECC Scope - Mitford Flood Storage Reservoir S10 Works v4

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

X11: Termination by the *Client*

X18 Limitation of Liability

X20: Key Performance Indicators

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

Measures in the Interest of Safety (MIOS) - work to replace debonded sealant in the movement joints of all six river culverts at Mitford Dam. Work also includes the unblocking of an air vent in the central culver no.3

The *Client* is Envrionment Agency

Address for communications [redacted]

Address for electronic communications [redacted]

The *Project Manager* is

Address for communications [redacted]

Address for electronic communications

The *Supervisor* is

Address for communications

Address for electronic communications [redacted]

The Scope is in
NEC4 ECC Scope - Mitford Flood Storage Reservoir S10 Works v4

The Site Information is in
Pre Construction Information Pack - Mitford Flood Storage Reservoir S10 Works v2

The *boundaries of the site* are
NEC4 ECC Scope - Mitford Flood Storage Reservoir S10 Works v4

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 06 September 2024

The *access dates* are

part of the Site	date

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

The *Completion Date* for the whole of the *works* is 16 October 2024

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 3 weeks except that
- The *defect correction period* for is
- The *defect correction period* for is

5 Payment

The *currency of the contract* is the £ sterling

The *assessment interval* is Monthly

The *Client* set total of the Prices is *£148,944.00*

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

[redacted]

6 Compensation events

The place where weather is to be recorded is Morpeth, Cockle Park

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.
2.
3.
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 Morpeth, Cockle Park
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. 'not used'
3. 'not used'
4. 'not used'
5. 'not used'

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

Address for communications

Address for electronic communications

Name

Address for communications

[redacted]

Address for electronic communications	[redacted]
The *Adjudicator* is	'to be confirmed'
Address for communications	'to be confirmed'
Address for electronic communications	'to be confirmed'
The *Adjudicator nominating body* is	The Institution of Civil Engineers

Z Clauses

Z1 Correctness of Site Information and other documents

Z1.1 Site Information about the ground, subsoil, ducts, cables, pipes and structures is provided in good faith by the *Client* , but is not warranted correct. Clause 60.3 does not apply to such Site Information and the *Contractor* is responsible for checking the correctness of any such Site Information they rely on for the purpose of pricing for or providing the *works* .
Z1.2 Information regarding construction methods or processes referred to in pre contract health and safety plans are provided in good faith by the *Client* but are not warranted correct (except for the purpose of promoting high standards of health and safety) and the *Contractor* is responsible for checking the correctness of any such information they rely on for the purpose of pricing for, or providing the *works* .

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 *Contracto* r.
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.

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.

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.

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

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 X18: Limitation of liability

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

£1,000,000

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

£1,000,000

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

£5,000,000

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

£5,000,000

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(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*
No term under this contract.	No beneficiary

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 [redacted]

Address for communications

Address for electronic communications

The *fee percentage* is Option C [redacted]

The *working areas* are The Site, the Contractors premises or the residence of any of

The *key persons* are

Name (1)
Job
Responsibilities
Qualifications
Experience

The *key persons* are

Name (2)
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

5 Payment

The *activity schedule* is

Resolving and avoiding disputes

The *Senior Representatives* of the *Contractor* are

[redacted]

[redacted]

Contract Execution

Client **execution**

Signed Underhand by [**PRINT NAME**] for and on behalf of the Environment Agency

[redacted]

Contractor **execution**

Signed Underhand by [**PRINT NAME**] for and on behalf of BAM Nuttall Ltd

[redacted]

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	Mitford Flood Storage Reservoir S10 Works
Project SOP reference	ENV0005889C
Contract reference	
Date	3rd May 2024
Version number	V4
Author	[redacted]

Revision history

Revision date	Summary of changes	Version number
29/05/2024	First issue for comment	1
15/07/2024	Updated following walkthrough survey	2
25/07/2024	Added Appendix 3 - Site Boundary	3
08/08/2024	Scope transferred to latest CDF ECC template	4

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 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	V 13	11/06/2024
LIT 65150	Minimum Technical Requirements – Environment and Sustainability	V 1	30/03/2023
LIT 17641	Exchange Information Requirements	3.0	01/12/2022
LIT 16559	SHEW CoP	V 6	September 2023
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	V 6.0	15/08/2023
FHU 309	Carbon methodology	V 3.1	02/10/2023

Navigating the Scope

On the Word ribbon, Select the 'View' tab then find the Show group. Select the check box against 'Navigation Pane'. A panel will open in the left-hand side that allows you

to go direct to Scope Headings and Scope Sub Headings. You can also search the document in the navigation Pane.

Alternatively use content table’s hyperlinks. Control and Select (Ctrl + Click) the Scope clause number will take you to that clause in this document.

Contents

S 100Description of the *works*

S 101 General Description of the *works*

1. The drawings describing the *works* are included in S 2000**.**
2. ~~The baseline setting out information is on drawing [add drawing number here]. 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.~~
3. **AD:** Mitford Flood Storage Reservoir (FSR) is a Category A (high risk) reservoir and is an integral part of the Morpeth Flood Alleviation Scheme, which was completed in 2015. Mitford Dam is designed to impound water during a flood event, to prevent flood defences overtopping downstream in Morpeth. Water is impounded by controlling the flow of water through 6 culverts using hydraulically actuated penstocks at the culvert entrances.
4. **AD:** A culvert inspection was undertaken by the Supervising Engineer (SE) in September 2023 as part of the annual inspection didn't reveal any significant concerns, but the report contained 11 suggestions from the Supervising Engineer. Item 7 was that "debonded or missing sealant should be replaced in the river culverts", and Item 8 was that "an investigation is undertaken to establish if the air vent from the central culvert is blocked".
5. **AD:** A Section 10(2) inspection was undertaken at the same time. Whilst reviewing the construction drawings, it was identified by the Inspecting Engineer (IE) that the culvert units do not have a definitive watertight element, this issue was not raised by the Construction Engineer. The worst-case scenario would be for river flows to progress internal erosion of material adjacent to and beneath the culverts. A number of options were available to rectify this and after discussion it was agreed that maintaining the polysulphide sealants is a key aspect at this dam.
6. **AD**: A draft version of the Section 10(2) report was issued on 19th January 2024 with the final version issued on 16th February 2024. Accordingly, two Measures in the Interest of Safety (MIOS) were identified:
    a) ***All debonded or missing sealant from the river culverts is replaced at the earliest opportunity and no later than 8 months from the date of the final report [16 October 2024].*** *(The draft report identified a timescale of 6 months; this was extended to 8 months in the final report).*
    b) ***The air vent in Culvert 3 is unblocked to allow equalisation of pressures during an emergency penstock closure at the earliest opportunity and no later than 18 months from the date of the final report [16 August 2025].***

7. **AD:** The debonded sealant affects all 6 river culverts and from the inspection is evident in the first upstream movement joint. It is thought that this is caused from the opening/closing of the penstocks over time as well as being situated within the area of highest velocities as flow passes through the culvert. The blocked air vent only affects culvert 3.

S 102 Purpose of the works / Outcome required

S 102 (1) Purpose

1. **AD**: MIOS place a legal requirement upon the Undertaker of a Reservoir to resolve within the timescale given (in this case, the Environment Agency are the Undertaker). Consequences of not complying with MIOS can lead to prosecution by the enforcement agency, in this case the Environment Agency. As the EA are both enforcement body and undertaker, non-compliance with MIOS could lead to reputational damage in the reservoirs industry

S 102 (2) Outcome Required

1. **AD:** For the culvert joints listed below, the *Contractor* shall: remove all existing sealant and the foam backer rod; prepare the joint and remove debris; install a new foam backer rod and new sealant to close the joint. The entire sealant joint shall be replaced. A total of 17no. joints shall be replaced.

2. **AD:** Culvert 1 is 1800 x 1800mm PCC box culvert. Culverts 2 – 6 are 3000 x 3000mm PCC box culverts. The joint reference is the distance from the inlet structure**.**

- Culvert 1: 3no. joints to be replaced at: 24.8m, 26.8m & 41.9m.
- Culvert 2: 5no. joints to be replaced at: 23.2m, 24.8m, 26.5m, 28m & 29.7m.
- Culvert 3: 1no. joints to be replaced at: 24.6m.
- Culvert 4: 1no. joint to be replaced at: 36.4m.
- Culvert 5: 3no. joints to be replaced at: 5.5m, 30.1m & 35.9m.
- Culvert 6: 4no. joints to be replaced at: 3.6m, 8.4m, 11.3m & 13.2m.

3. **AD:** The *Contractor* shall repair the spalled concrete and remove the exposed RC tie wire in culvert 2, located at the outlet structure**.**

4. **AD:** The Contractor shall repair the sofit crack in culvert 4, located at the outlet structure.

5. **AD:** As part of the work, the *Contractor* will remove the vent blockage in culvert 3.

6. **AD:** Any additional repair work identified will be subject to a compensation event**.**

7. **AD:** The site boundary is found within **Appendix 3**.

S 200 General constraints on how the *Contractor* provides the *works*

S 201 General Constraints

S 201 (1) Use of site

1. **AD**: Mitford Dam is designed to impound water during a flood event. Water is impounded by controlling the flow of water through 6 culverts using hydraulically actuated penstocks at the culvert entrances. Each of the 6no. penstocks is automatically controlled by rising river levels as measured by the upstream telemetry. The *Client* shall make arrangements on site to temporarily disable individual penstocks to prevent accidental closure during the works. The *Contractor* must notify the *Client* giving a minimum of TWO working days prior to accessing Site, so notice can be given to the operator to deactivate automatic penstock.
2. **AD:** 2no. penstocks need to always remain open. Fish passage must also be maintained at all times, therefore culvert 1 and culvert 2 cannot be closed at the same time.
3. **AD:** Stop logs are available for the inlet of each culvert. However, these are known to leak therefore the *Contractor* will need to provide additional waterproofing measures if a dry working area is needed.
4. **AD:** There are 12no. stop logs of 200mm height and 3m length; and 6no stop logs of 200mm height and 1.8m length. The height of the angle brackets will limit the height of stop logs to no more than 3no, providing a combined height of 600mm.
5. **AD:** The site is not tidal. The flow may change as a result of heavy rainfall. Weather and river level forecasts are available for the site and a gauge board is present at the upstream culvert inlet to monitor water levels. The upstream inlet gauge board datum is 43.53mAOD. The maximum stop logs height of 600mm will be equivalent to 44.13mAOD on the upstream gauge, or 0.60mStage.
6. **AD:** As the site is a Flood Storage Reservoir and could fill with water, consideration must be given to the location of any storage areas on the site.

S 201 (2) Access to Site

1. **AD:** Vehicular access off the B6343 (X/Y coordinates: 415340,585631), and access to the dam site is via a locked gate close to the Control Building. A key will be provided by the *Client*. The *Contractor* must control the arrangements for access and egress and meet and greet any scheduled deliveries ensuring that both Security and access is maintained to the operational site.
2. **AD:** Access to the site is achieved via a 4m wide access road off the B6343. This access route has a number of sharp bends both to and within the dam site itself. Hard surfaced areas within the dam area are also limited to this 4m width. There are some wider areas and a turning

head which can be utilised to turn vehicles around. No vehicles are permitted to park on grassed areas.

3. **AD:** The access route from the B6343 to the slab above the inlet structure has been assessed to accommodate the maintenance requirements of a crane to remove and re-install the penstock gates. This assessment concluded that the road network, slab and retaining wall to the inlet structure have the capacity to withstand the loading of a 20T crane. Vehicles and plant must be selected accordingly.

4. **AD:** The *Contractor* shall maintain safe access and egress routes for EA operatives and vehicles requiring access to areas affected by the *works.*

5. **AD:** The safe access and egress route shall be agreed with the *Project Manager* at least TWO weeks before the works in each Working Area commence.

6. **AD:** The *Contractor* shall not enter or use the Site for any purpose not connected with the *works*

7. **AD:** The *Contractor* shall not remain on the Site overnight without the written agreement of the *Project Manager*.

S 201 (3) Confined space

8. **AD:** The *Client* has deemed the following areas as confined spaces and is subject to entry permit requirements: 6no. river culverts

   - 1no. 1.8m x 1.8m PCC box culvert.
   - 5no. 3m x 3m PCC box culverts.

S 201 (4) Working hours

9. **AD:** Weekend working will require written acceptance of the *Project Manager* and a minimum notice period of ONE week is required.

S 201 (5) Pollution, ecological and environmental impacts

10. **AD:** The *Contractor* shall plan and order all his activities to assist the *Client* to achieve legal compliance and achievement of *Client's* corporate goals.

11. **AD:** In addition to this general requirement, particular areas for action are:

    i. Avoidance of pollution of any waters.

    ii. Avoidance of pollution of any land.

    iii. Protection and enhancement of flora and fauna.

    iv. Avoidance of nuisance of sounds, vibrations, and dust.

12. **AD:** Due to native crayfish on site, there is a very limited environmental window (July to September) that allows work to be carried out.

13. **AD:** Culvert 1 has a natural substrate on the bed and will contain a high population of native crayfish. From the walkthrough survey the other

culverts are also expected to support high populations of crayfish. If dewatering is required, a crayfish rescue will need to be carried out under licence. In addition, any removal of debris to inspect inundated sealant while water is flowing will also fall under a licensable activity.

14. **AD:** Culvert 2 has a low flow channel and baffles and will likely also support fish. The other culverts may also support fish if debris or sediment has deposited. If dewatering is required, a fish rescue will need to be carried out. If works are undertaken during sensitive spawning periods, inspections for fish redds may also be needed and avoidance measures implemented. Any fish rescue will require an 'Application for authorisation to use fishing instruments other than rod and line in England Under Section 27A of the Salmon and Freshwater Fisheries Act 1975' and will need to be applied for and granted in advance of works.

15. **AD:** Any removed or moved bed substrate in Culvert 1 and Culvert 2 must be replaced back to original locations and condition.

16. **AD:** Known otter activity upstream and downstream of the culverts. It is not anticipated that the works will impact otters, though they must be considered during planning stages, so as not to fragment habitat during the *works* and precautionary measures in place should an otter be seen on site.

17. **AD:** There is potential for bats to be found roosting in open joints above the waterline. A Suitably Qualified Ecologist licenced to a suitable level for bat licencing shall carry out surveys of the structure and all culverts for bats, following best practice as detailed in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). Should roosting bats be found, The Ecologist shall lead on protected species licence applications and on-site bat rescues / clerk of works for bat protection and fulfilment of legal obligations.

S 202 Confidentiality

1. 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

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

S 203 Security and protection on the site

1. **AD:** The *Contactor* will be responsible for site security and preventing unauthorised persons entering the work site areas. A key will be provided for access and egress through the main EA gate which should be kept closed and locked when not in use as is the EA procedure.

2. **AD:** All access to be approved with the Site Liaison Officer who will advise on daily protocols required with regards to locked gates/security system.

3. **AD:** It will be the *Contractor's* responsibility to control required site access, meet and greet scheduled deliveries and provide their supply chain with a site contact number for arrival of deliveries. This must be managed to ensure there is no disruption to the operational site and security and access is maintained.

4. **AD:** Secure fencing is to be provided to secure the site and any fencing provided must be appropriately fixed and braced, and regularly inspected. Any Heras type fencing must be double clipped and erected to the required BS standard for temporary fencing. Construction warning site signage and information notices to be fitted to the security fence with Site Manager contact details.

5. **AD:** Staff and equipment entering the site must follow all EA site security, Health, Safety and Wellbeing together with bio-security requirements at all times.

6. **AD:** Access to the main control building is not permitted unless escorted by the *Client* or the *Client's* representative. Note that any access to the building will require notification to the Field team and FIDO as entry will activate alarms. The contact number for FIDO is 0800 032 0780.

S 204 Security and identification of people

1. **AD:** The *Contractor* will maintain a register for all operatives, contractors, and visitors, arriving and leaving site.

S 205 Protection of existing structures and services

1. **AD:** All consultation and liaison with Statutory Undertakers are the responsibility of the *Contractor.*

2. **AD:** The *Contractor* shall confirm the location of all the services identified in the Site Information.

3. **AD:** Protection works shall be determined and actioned prior to undertaking any activity by the *Contractor*. Suitable method statements must be developed by the Contractor and accepted by the *Project Manager* prior to undertaking such activity.

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

S 206 Protection of the *works*

1. **AD:** No vehicles are permitted to park on grassed areas.

S 207 Cleanliness of the roads

1. **AD:** The *Contractor* promptly removes mud and debris from the access routes.

~~S 208 Traffic management~~

~~S 209 Condition survey~~

S 210 Consideration of others

1. **AD:** The *Contractor* shall notify the *Project Manager* FOURTEEN days in advance of his intention to first enter or occupy the Working Area within the Site. The *Client* in turn will notify the relevant EA departments and landowner, including the EA Site Liaison Officer and Field Operations Team who are responsible for and maintain the site.
2. **AD:** The *Contractor* shall provide the following information to the *Client* to inform the relevant EA departments including Field Operations of:
   i. Marked up plan of the Working Area required.
   ii. Duration of the works.
   iii. Details of the works to be undertaken.
   iv. Access arrangements.
   v. Site safety requirements.
3. **AD:** The *Contractor* shall work directly with the following members of the project team:
   a) PCM *Project Manager* and Assistant Project Manager.
   b) Biodiversity officers.
   c) EA Site Liaison Officer, EA Field Operations.
   d) Senior User.
   e) CDF Lot 1 Consultant – ARUP.
   f) All other members of the project team should be contacted through the *Client's Project Manager* or Assistant Project Manager.
   g) Direct engagement with other third parties shall only be with permission of the *Client's Project Manager* or Assistant Project Manager.

S 211 Control of site personnel

1. **AD:** The EA requires that the *Contractor* gives at least seven days written notice of the start of work on site. This is to be issued to the RO (Responsible Officer, Catherine Marshall) and the SLO (Site Liaison Officer, Terry Carr) via the CDM Client.
2. **AD:** The *Contractor* must use their own Permit to Work system and outline these arrangements in their Construction Phase Plan.
3. **AD:** The *Contractor* shall obtain all environmental permits for the *works*, including those which affect watercourses and or flood defences.

4. **AD:** The *Contractor* obtains Flood Risk Activities Environmental Permits for temporary works from the Environment Agency.

~~S 212 Site cleanliness~~

~~S 213 Waste materials~~

~~S 214 Deleterious and hazardous materials~~

~~S 215 Carbon~~

~~S 215 (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 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 Contractors 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).

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 "worksheet 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 worksheet 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.
10. 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.

S 215 (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 sub contractors, 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.

S 215 (3) Carbon Responsibilities of the *Client*

18. 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.

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

4. It is at the *Client'* 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.

S 215 (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

S 215 (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

S 216 Reporting Requirements

S 216 (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

2. For the duration of the contract, progress is to be reported monthly via LIT 13283 Monthly work progress summary - construction stage.docx

2. [add any additional monthly reporting]

S 216 (2) Aligned Cost and Carbon Data Pilot Reporting

1. This Project requires that the LIT 61272 'Worksheet 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.

S 216 (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) 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.

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

S 300 Contractor's design

~~S 301 Design responsibility~~

~~**1.** Clause 21.1~~

~~**2.** Design Liability of the *Contractor* is fit for purpose.~~

~~S 302 Design submission procedure~~

~~**1.** Clause 21.2 as above~~

~~S 303 Design approval from Others~~

~~**3.** Clause 27.1 State any requirements for design check and approval by Others.~~

S 304 *Client*'s requirements

1. **AD:** The culvert joints shall be replaced using Sikaflex –423 PowerCure elastic polyurethane sealant. Sikaflex –115 Primer will be used to prepare the joint before the sealant is applied.

2. **AD:** Fosroc Patchroc 250 or similar shall be used for the patch repair in culvert 2.

3. **AD:** Fosroc Nitofill LV or similar shall be used for the crack repair in culvert 4.

~~S 305 Design co-ordination~~

~~S 306 Requirements of Others~~

~~S 307 Copyright / licence~~

~~S 308 Access to information following completion~~

~~S 309 Site investigation~~

~~**(1)** The *Contractor* obtains soils information as necessary for the design of the *works*. The *Contractor* specifies, procures, manages and undertakes site investigations to inform the detailed design of the *works* and to manage their risk of unforeseen ground conditions during construction. The *Contractor* undertakes laboratory testing of samples, and longer term monitoring of site conditions as required. This supplements the information provided in the Site Information.~~

~~**(2)** 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)

(3) The *Contractor* provides the *Project Manager* with the final Factual Report of the investigation in digital format.

(4) The *Contractor* reviews and analyses the data within the Factual Report and prepares an Interpretative Report to support their detailed design. The *Contractor* provides the Project Manager with the final Interpretative Report in digital format.

(5) 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.

S 400Completion

S 401 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 ~~one hard copy and~~ one electronic version. Provide all information to the Principal Designer, if the Principal Designer is compiling the Health and Safety File.

(2) Operating and Maintenance Manuals ~~one hard copy and~~ one electronic version.

(3) As Built Drawings ~~one hard copy and~~ one electronic version.

(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 [**add detail].**~~

~~S 402 Sectional Completion definition~~

~~S 402 (1) Work to be done for [each Sectional Completion]~~

~~S 402 (2) Sectional Completion Requirements~~

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

~~**(1)** BIM data~~ ~~Transfer to the *Client* databases of BIM data~~

~~**(2)** Carbon~~ ~~Delivery of the carbon differentials between alternative design solution options at appraisal stage (if appraisal, design and build)~~

~~**(3)** Carbon~~ ~~Delivery of carbon considerations in appraisal, design and build~~

~~**(4)** Carbon~~ ~~Completion and Delivery of Carbon optimisation report at Gateway 3 (if design and build)~~

~~S 403 Training~~

S 404 Final clean

1. On Completion of the works, the *Contractor* returns the Site, any access roads and any other affected existing works to a condition not inferior to that at the commencement of the *works*. All debris, unused materials, Equipment, and temporary works are to be cleared and dismantled from the site.

~~S 405 Security~~

~~S 406 Correcting Defects~~

S 407 Pre-Completion arrangements

~~1.~~ 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 ONE weeks in advance of the planned take over or Completion.

~~S 408 Take over~~

S 500Programme

S 501 Programme requirements

1. 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)~~.

S 502 Programme arrangement

1. **AD:** The *Contractor* shall provide a high-level construction programme based on the detailed design supplied by JBA and input into activities, durations and sequence that can allow planning around specially the ecological constraints associated with working in the river course: August to October inclusive.

2. **AD:** The programme shall cover all the activities to be undertaken by the *Contractor* and other members of the project team.

~~S 503 Methodology statement~~

~~S 504 Work of the *Client* and Others~~

~~S 505 Information required~~

S 506 Revised programme

1. **AD:** Upon submission of each revised programme all changes will be highlighted and explanation / justifications for these changes shall be provided to the *Project Manager*.

S 507 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~~

(6) ~~Framework Heads Up 244 Commercial Clarification 54~~

(7) ~~Framework Heads Up 256 Commercial Clarification 57~~

(8) Attend project board meetings as required.

(9) ~~Ensure quarterly input into framework performance assessment / environmental Performance Measures.~~

(10) ~~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~~.

(11) Capture lessons learnt relevant to scheme delivery for the *Client*.

~~S 600~~Quality assurance

~~S 601 Samples~~

S 602 Quality statement

1. The *Contractor* shall submit a Quality Statement clearly setting out quality commitments for the Contracting organisation.

S 603 Quality management system

1. The *Contractor* shall operate a Quality Management System complying with BS EN ISO 9001. The *Contractor* shall describe the Quality Management System that it intends to operate for the implementation for this scheme in a site specific Quality Plan.

S 604 BIM requirements

1. The BIM Information Manager is the Client *Project Manager*.

S 700Test and inspections

S 701 Tests and inspections

2. The *Contractor* will produce a schedule of inspections and tests. The schedule of tests and inspections must take reasonable steps to ensure the constructed works meet the requirements of the design, specification and the Client's MTR.

~~S 702 Management of tests and inspections~~

~~S 703 Covering up completed work~~

~~S 704 Supervisor's procedures for inspections and watching tests~~

S 800Management of the *works*

S 801 Project Teams – others

1. **AD:** The ECC *Project Manager*: Raja.Hassan@mottmac.com.
2. **AD:** The ECC *Supervisor: TBC*.
3. **AD:** The Client's Principal Design: ian.hodgson@callsafe-services.co.uk.

S 802 Communications

1. **AD:** The *Contractor*, *Project Manager* and *Supervisor* shall use the *Clients* web-based Contract Administration platform – FastDraft.
2. **AD:** When using the "Third Party Data Supply to Agency Contractors" form the *Contractor* should be aware that any information supplied by the *Client* is not warranted by the *Client*. The *Client* will not accept any liability for the supply of inaccurate information.
3. Meetings: **AD:** The *Contractor*, *Project Manager* and *Supervisor* shall attend the weekly progress meeting held on Teams.
4. ~~Reporting **[add here]**~~
5. ~~Latest Contract Management system and [add here]~~
6. ~~Use of standards forms on our Contract Management system and templates [add here]~~
7. ~~Terminology and abbreviations **[add here]**~~

S 900Working with the *Client* and Others

S 901 Sharing the working areas with the *Client* and Others

1. **AD:** The *Contractor* will be required to liaise with the EA Site Liaison Officer and Field Operations Team who are responsible for security and maintain the site.
2. **AD:** The Field Operations Team may be on site carrying out maintenance activities adjacent to the Working Area and using access roads at the same time as the *Contractor.*

~~S 902 Co-Operation~~

~~S 903 Co-Ordination~~

~~1. The list of affected parties requiring co-ordination are :[add here]~~

~~2. Should the *Contractor*'s working method alter the list of parties requiring co-ordinating, it is the Contractor's responsibility to undertake this activity without the need for additional instruction.~~

~~S 904 Authorities and utility providers~~

~~S 905 Diversity and working with the *Client*, Others and the public~~

S 1000 Services and other things to be provided

~~**S 1001 Services and other things for the use of the *Client*, Project Manager or Others to be provided by the *Contractor***~~

S 1002 Services and other things to be provided by the *Client*

1. **AD:** The *Client* will arrange the following in liaison with the Site Liaison Officer (SLO) and Field Operations Team including:

i. Access to the Site / Daily security protocols.

ii. Space for the accommodation/compound.

iii. Use of facilities on site to be confirmed with SLO.

S 1100 Health and safety

S 1101 Health and safety requirements

1. **AD:** Health and safety is the number one priority of the *Client*. The *Contractor* will promote and adopt safe working methods and shall strive to deliver solutions that provide optimum safety to all whilst complying with the following documents/guidelines.

i. 300_10 SHE handbook for managing capital projects (LIT 12507) version 2, 23/03/2023.

ii. 300_10_SD27 SHE Code of Practice (LIT 16559) version 6, September 2023.

S 1102 Method statements

1. **AD:** Risk assessments and method statements (RAMS) provided to support a programme for acceptance are to include full particulars of the methods, timing and sequence of construction including the use and design of temporary works, Materials, People, Plant and Equipment proposed by the *Contractor*. RAMS are to contain sufficient information to enable the *Supervisor* to assess any likely detriment to either the proposed or the existing works or to the *Client's* overall objectives.

2. **AD**: The *Contractor* shall issue RAMS to the *Supervisor* and *Project Manager* for information in advance of carrying out items of work. The *Contractor* allows the period for reply for comment and then undertakes the *works* in accordance with the risk assessments and method statement.

S 1103 Legal requirements

1. The *Client* duties under the CDM Regulations shall be undertaken by the *Client*.
2. The Principal Contractor duties under the CDM Regulations shall be undertaken by the *Contractor*.
3. The Principal Designer for the Pre-Construction Phase extending into the Construction Phase shall be undertaken by Callsafe Services Limited.

S 1104 Inspections

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

S 1200 Subcontracting

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

~~**S 1201 Restrictions or requirements for sub contracting**~~

~~**S 1202 Acceptance procedure**~~

S 1203 Procurement of subcontractors

1. Sub-contractors need to be selected using best value processes.
2. This requires the *Contractor*/ Consultant to demonstrate that they have made reasonable attempts to obtain three competitive tenders for all work in excess of £25,000.
3. 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.

~~S 1300 Title~~

~~S 1301 Marking~~

~~S 1302 Materials form excavation and demolition~~

S 1400 ~~Acceptance or procurement procedure (Options C, D, E and F)~~

S 1500 Accounts and Records (Options C,D, E and F)

S 1501 Additional Records

1. **AD:** Additional records to be kept by the *Contractor* include but not be limited the following:

i. Timesheets and site allocation sheets,

ii. Equipment records,

iii. Specific procurement and cost reports

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

S 1502 Application for Payment / Invoice

1. The *Contractor* is required to be able to provide evidence of costs in the following format:
   LIT 61272 Worksheet Actual Carbon and Cost data CDF Lot 2
2. This is paused but may restart during the life of the contract.

S 1502 (1) Appropriate Sheets

~~1. 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.~~

~~2. FastDraft Carbon Forecast (Monthly Reporting) provided via *Contractor* Carbon Forecast Form in FastDraft~~

~~3. 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~~

~~4. 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.~~

S 1600 ~~Parent Company guarantee (Option X4)~~

~~S 1700 Performance Bond (only applicable to with X13)~~

~~S 1800 Advanced Payment Bond (only applicable with X14)~~

S 1900 ~~Low Performance Damages (only applicable with~~ X17)

S 2000 *Client*'s work specifications and drawings

S 2001 Client's work specification

1. **AD:** JBA, Structural Inspection Report, Culverts 1-6, Mitford Dam, Morpeth, dated 26 June 2024 (ref: LTO-JBAU-XX-MT-RP-C-0001).
2. **AD:** OnSite, Method Statement – Mitford Dam Culvert – Joint Repair Works, dated 04/07/2024 (ref: QUENSH-MS 53).
3. **AD:** BAM Nuttall Ltd, Mitford Dam Minor Repairs, revision P01 (no date), (ref: LTO-JBAU-XX-MT-DR-C-0001).
4. **AD:** Specifications which should be read in conjunction with the Client's Minimum Technical Requirements document.

S 2002 Drawings

Drawing Reference	Drawing Title
GMORDD/2600_Z0	Morpeth Flood Alleviation Scheme, Phase 2 - Flood Storage Area, Dam Culverts, General Arrangement
GMORDD/2601_Z0	Morpeth Flood Alleviation Scheme, Phase 2 - Flood Storage Area, Dam Culverts, Cross Sections
GMORDD/2602_Z0	Morpeth Flood Alleviation Scheme, Phase 2 - Flood Storage Area, Dam Culverts, Misc Details
GMORDD/2603_Z0	Morpeth Flood Alleviation Scheme, Phase 2 - Flood Storage Area, Dam Culverts, Misc Details Sheet 2 of 2
GMORDD/2500_Z0	Morpeth Flood Alleviation Scheme, Phase 2 - Flood Storage Area, General Arrangement of Inlet Structure
GMORDD/2501_Z0	Morpeth Flood Alleviation Scheme, Phase - 2 Flood Storage Area, Inlet Structure Cross Sections, Sheet 1 of 3
GMORDD/2502_Z0	Morpeth Flood Alleviation Scheme, Phase - 2 Flood Storage Area, Inlet Structure Cross Sections, Sheet 2 of 3
GMORDD/2503_Z0	Morpeth Flood Alleviation Scheme, Phase - 2 Flood Storage Area, Inlet Structure Cross Sections, Sheet 3 of 3

S 2003 Standards the *Contractor* will comply with

~~1. 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~~
~~[add ref #]~~	~~Sustainability Measures Form~~	
~~[add all that apply to your contract in this table]~~	~~Timber Policy Documents~~	

~~LIT 61272~~	~~CDF Lot 2 Worksheet actual cost and carbon data CDF Lot 2~~	~~Cost and Carbon when taking part in ACCD Pilot and or roll out~~

S 2004 ~~**Appendix with additional standards the *Contractor* will comply with**~~

Appendix 1 ~~Information Delivery plan~~

Appendix 2 ~~Visualisation Scope~~

Appendix 3 Site Boundary

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 workspace 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 - Site Boundary