



Framework: Collaborative Delivery Framework

Supplier: BAM Nuttall Ltd

Company Number: 00305189

Geographical Area: North East

Contract Name: Butteryhaugh FAS

Project Number:

Contract Type: Engineering Construction Contract

Option: Option C

Contract Number: P-32465

Stage: Other

Revision	Sta	itus	Origi	nator	Revi	ewer	Date
0 For final approval						17-Aug-23	
Α	Final						30-Aug-23

${\tt ENGINEERING\ AND\ CONSTRUCTION\ CONTRACT\ under\ the\ Collaborative\ Delivery\ Framework\ CONTRACT\ DATA}$

Project Name	Butteryhaugh FAS					
Project Number						
	This contract is made on between the Client and the Contractor					
	Agreement Extension dated and signed 1st April	k Agreement (the 'Agreement') dated 10th day of April 2019 and Framework 2023 between the <i>Client</i> and the <i>Contractor</i> in relation to the Collaborative the following Schedules are incorporated into this Contract by reference				
	Schedules 1 to 23 inclusive of the Framework so	chedules are relied upon within this contract.				
	The following documents are incorporated into t NEC4 Scope Butteryhaugh Lot 2 BAM OBC RevB	this contract by reference				
Part One - Data p Statements given in all Contracts	rovided by the <i>Client</i> n					
1 General	The conditions of contract are the core clauses an secondary Options of the NEC4 Engineering and Co	d the clauses for the following main Option, the Option for resolving and avoiding disputes and the instruction Contract June 2017.				
	Main Option C Option C Option C Option W2 Option W2 Option W2					
	Secondary Options					
	X2: Changes in the law					
	X7: Delay damages					
	X9: Transfer of rights					
	X10: Information modelling					
	X11: Termination by the <i>Client</i> X15: <i>Contractor's</i> design 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	The works are				
	Early Supplier Engagement to assist in Appraisal and development of an Outline Business Case					
	The Client is	Environment Agency				
	Address for communications	Tyneside House Newcastle Business Park Skinnerburn Road Newcastle Upon Tyne NE4 7AR				
	Address for electronic communications					
	The Project Manager is					

Environment Agency

Address for communications

Tyneside House Newcastle Business Park Skinnerburn Road Newcastle Upon Tyne

Addrose	for	alactronic	commi	unications

The Supervisor is TBC

Address for communications

Address for electronic communications

The Scope is in NEC4 Scope Butteryhaugh Lot 2 BAM OBC

The Site Information is in Butteryhaugh Site Information RevA

The boundaries of the site are Butteryhaugh Red Line Boundary RevA Dated 17.08.2023

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 The ${\it Contractor's}$ 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 08 September 2023

The access dates are

part of the Site date

08 September 2023

The Contractor submits revised programmes at

intervals no longer than 4 weeks

The Completion Date for the whole of the works is 10 September 2024

The Client is 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

The period between Completion of the whole of the works and the

52 weeks

The defect correction period is except that . The defect correction period for

 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

The interest rate is 2.00% per annum (not less than 2) above the

rate of the Bank of England

The Contractor's share percentages and the share ranges are

share range Contractor's share percentage 80 % less than 0 % from 80 % 120 % as set out in Schedule 17 to greater than 120 % as set out in Schedule 17

6 Compensation events

The nearest calibrated Met Office Weather Station to the site The place where weather is to be recorded is

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
- hours GMT • the number of days with snow lying at

and these measurements:

- 2. 3.
- 4.

5.

The weather measurements are supplied by

The weather data are the records of past weather measurement for each calendar month

which were recorded at

and which are available from

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

Jul Feb Aug Mar Sep Apr Oct May Nov Jun Dec

These are additional compensation events

- Carbon Methodology Adherence to and compliance with the Carbon Methodology dated 08 June 2023
- 2. 'not used'
- 'not used'

- 'not used'
- 'not used'

8 Liabilities and insurance

These are additional Client's liabilities

- 1 'not used'
- 'not used'
- '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

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

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

Address for communications

Address for electronic communications

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

Z3 Prevention: No change to prices

Delete first sentence of clause 62.2 and replace with:

Togotations 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*. 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.

77 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

Z10 Payments to subcontractors, sub consultants and

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 31 March 2024 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

730.3 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 March 2024 period compensation event.

Assessment Date	Defined Cost?	Forecasted Cost?
31 July 2021	In period costs only	No
		No.
31 August 2021	In period costs only	***
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	No
31 July 2023	In period costs only	No
31 August 2023	In period costs only	No
30 September 2023	In period costs only	No
31 October 2023	In period costs only	No
30 November 2023	In period costs only	No
31 December 2023	In period costs only	No
31 January 2024	In period costs only	No
29 February 2024	In period costs only	No
31 March 2024	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
- 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.

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

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

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 years

OPTION X15: The Contractor's design

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

6 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

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 Years

OPTION X18: Limitation of liability

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

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

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

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

The *end of liability date is*Completion of the whole of the *works*

6 years

after the

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

not used None

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 BAM Nuttall Ltd Name Address for communications St James House Knoll Road Camberley Surrey **GU15 3XW** Address for electronic communications The fee percentage is Option C 9.90% The offices and premises of the Contractor and Butteryhaug The working areas are The key persons are Name (1) Job Responsibilities Qualifications Experience The key persons are Name (2) 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

not applicable

3 Time

The programme identified in the Contract Data is

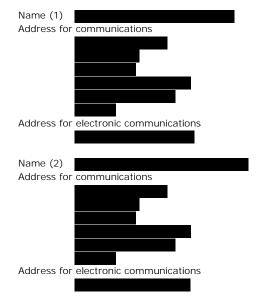
not applicable

5 Payment

The *activity schedule* is not applicable

Resolving and avoiding disputes

The Senior Representatives of the Contractor are



X10: Information Modelling

The *information execution plan* identified in the Contract Data is to be confirmed

Contract Execution

Client execution

Signed Underhand by [PRINT NAME]

for and on behalf of the Environment Agency



Contractor execution

Signed Underhand by [PRINT NAME]

for and on behalf of

BAM Nuttall Ltd



Environment Agency NEC4 engineering and construction contract (ECC) Scope

Project / contract information

Project name	Butteryhaugh Flood Alleviation Scheme (FAS)
Project SOP reference	
Contract reference	TBC
Date	19 th May 2023
Version number	RevB
Author	

Revision history

Revision date	Summary of changes	Version number
19.05.2023	First issue	0
17.08.2023	Changes made following comments by all parties	A
30.08.2023	Final changes made and comments removed	В

This Scope should be read in conjunction with the version of the Minimum Technical Requirements and Exchange Information Requirements current at the Contract Date. In the event of conflict, this Scope shall prevail. The *service* is to be compliant with the following version of the Minimum Technical Requirements and Exchange Information Requirements:

Document	Document Title	Version No	Issue date
LIT 13258	Minimum Technical Requirements	v12	December 2021
LIT 17641	Exchange Information Requirements	v2.4	February 2023



Part 2: Non-returnable Documents NEC4 - ECC

Section 8 Scope

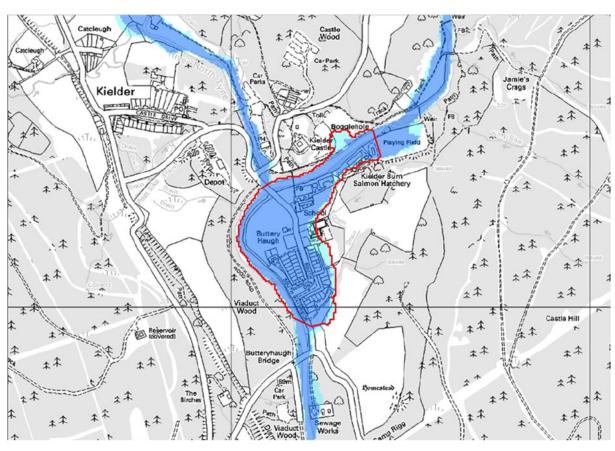
Contents List

S 100	Description of the works
S 200	General constraints on how the Contractor provides the works
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S 500	Programme
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S 1500	Accounts and records (Options C and E)
S 1600	Not used
S 1700	Client's work specifications and drawings

Appendix 1 BIM Protocol – Production and Delivery Table
Appendix 2 BIM Protocol – *Clients* Information requirements

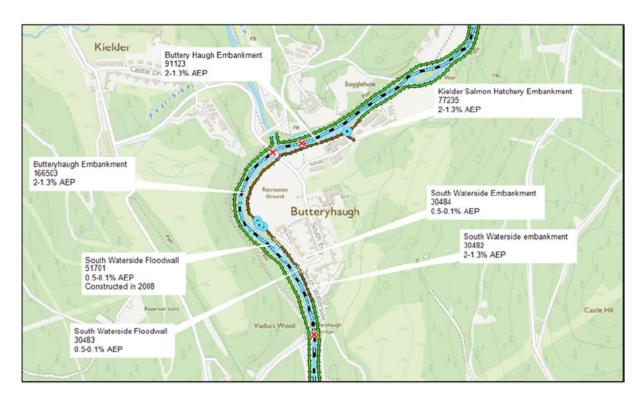
1. Description of the works

S 101 Description of the works



AD: Figure 1 Map of Butteryhaugh

AD: The Butteryhaugh community is protected by a set of flood defences comprising of five embankments and two flood walls that are all maintained by the Environment Agency (EA) – see figure 2. A new baseline model was produced in 2019 which showed that 48 residential properties are at risk of flooding in the 1% AEP (Annual Exceedance Probability) in the Do-nothing (DN) scenario. The 2019 defended modelling showed that the EA linear assets get by-passed at a relatively early return period from upstream flows moving out of bank, north of Kielder Hatchery. These flows make their way down and through the village, causing flooding to residential properties accumulating at South End and South Waterside, behind the EA maintained embankments and walls. The out of bank flows occur at the 5% AEP.



AD: Figure 2 Location and current Standard of Protections of assets at Butteryhaugh

The Butteryhaugh community lies within fluvial Flood Zone 2 &3 and although the village has nearly experienced surface water flooding in the past, the flood risk at Butteryhaugh is primarily fluvial. A modelling study that delivered in 2019 provided an understanding of fluvial flood risk in Butteryhaugh. This showed that properties on South End and South Waterside of Butteryhaugh are the primary flood receptors. Even in a present day defended scenario, Butteryhaugh is at risk from the Kielder Burn in the 2% AEP (50-year RP) event, as overland flow from upstream of the hatchery bypasses the road ramp to flow west, then south, through the village along the road network to reach properties on Castle View, South End and South Waterside.

To manage the flood risk at Butteryhaugh, through the SOC Do Something Option 8 (Re-profile 150m of embankment (30482, 30484 and 166503) to slacken the steepest slopes on the exposed face and address any low spots, along with raising the crest level of asset 91123 by 0.2m over a 40m length to provide up to a 1% AEP. Option 5 (Extend LB defences on Kielder Burn downstream past sports field (147m) to provide up to a 1% AEP) will also be included in order to manage risk from the Kielder Burn near the Hatchery) was selected as the preferred option. Option 5 better protects 44 residential properties. The preferred option will produce 1,671 tonnes of carbon across its life. The designs will be developed with the aim of reducing this baseline carbon estimate and it should be investigated at OBC stage whether some of the new wall in front of the rugby pavilion can be replaced with an embankment to reduce carbon.

Further investigations are required to refine this option and the purpose of this contract is to support the Others to achieve an Outline Business Case (OBC).

S 102 Purpose of the Works

AD: The purpose of the work is to assist in the development of the OBC for the Butteryhaugh OBC.

The Contractor's deliverables for progressing the Strategic Outline Case to the Outline Business Case are summarised in Table 1.

Table 1: CDF ESE Summary of Contractor Deliverables

No.	Deliverables		
1	Basic Staffing Schedule for ESE & Construction Phase		
2	Production of high level construction programme. Details to include:		
	High level construction durations		
	Identification of long lead items		
	 Ecological constraints, such as periods in the year we may not be to work 		
	Permitting durations / requirements		
3	Project specific Noise & Vibration Requirements		
4	Identification of 3rd Party Considerations. Such as:		
	 Landowners 		
	Notice of Entry		
	Any permitting required		
	Planning consents required		
	Highway consents		
	Interface with utilities		
	Structural surveys		
	Ecological surveys		
5	Draft Temporary Works Schedule		
6	Input into optioneering		
7	Production of a high level Methodology & Buildability Report for each of the 3 design options		
8	High level costs estimate based on 3 concept design options		
9	Review Scope for OBC to FBC		
10	Review draft Site Information		
11	Input into Project Carbon Tool		
12	Attendance of Risk Workshops		
13	Attendance of Monthly Meetings		
14	Attendance of site visits		
15	Production of monthly project updates		

2. General constraints on how the Contractor provides the works

S 201 General constraints

AD: Potential access constraints/restrictions to be managed by liaison/consultation with any necessary landowners and adjacent land users in cooperation with the *Client*.

Environment Agency permits may be required for certain site investigation activities, particularly where in channel works are specified. Close liaison with the *Client's* Area Partnership and Strategic Overview (P&SO) and Fisheries, Biodiversity and Geomorphology (FBG) Teams required. Input and ascertaining of the FRAP and SI to be instructed as Compensation Events if required.

A Marine Management Organisation (MMO) licence may be required and liaison with the MMO to develop and gain this licence is required as part of the SOC-OBC scope. Developing/engaging with the MMO to be instructed as a compensation event if required.

Potential buried services in the location of intrusive ground investigation. Services plans can be supplied to assist in the planning of these works, but the *Contractor* must satisfy themselves as to their validity. Any GPR or trial holes involved with this will be instructed as a compensation event if required.

Potential heritage or archaeological constraints. To be managed via liaison by the *Contractor*, and *Client* as required. Any archaeological surveys or discussions with other parties to ascertain heritage constraints will be instructed as a compensation event if required.

Potential constraints to working times may exist for certain site locations. To be managed by liaison/consultation with any necessary landowners and adjacent land users in co-operation with the *Client*.

Potential constraints regarding the methodology of the construction phase include working in the channel with machinery. *Contractor* to liaise with the *Clients* FBG team.

Flood events which occur during or in advance of inspections may temporarily prevent access. Appropriate flood warning systems to be utilised where possible. To be managed by liaison between *Contractor* and *Client* as required. This will be clearly defined as a compensation event.

Any access constraints posed by intrusive vegetation. To be managed via liaison between Contractor and Client as required. Any removal of invasive species and or vegetation is excluded from this scope and will be instructed as a compensation event if required

S 202 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 services only with the Client's written permission.

AD: All data supplied to the *Contractor* as part of this study remains the Intellectual Property (IP) of the *Client*.

S 203 Security and protection on the site

State any security requirements for the Site and protection of the public.

AD: Publicly open location. Existing fencing to be maintained by the Contractor

S 204 Security and identification of people

State any security, vetting and identification of people working on or visiting the Site.

AD: The Contractor is responsible for the security of the Site, when defined, and for vehicles and pedestrians entering and leaving the Site.

S 205 The *Contractor* will include for Security within quotations for Compensation Events and notify the requirements to the *Project Manager*.

S 206 Protection of existing structures and services

State any specific requirements for the protection of existing structures, services, mains, trees and other plants. Requirements for maintenance of existing services. Procedures for working on existing structures and services.

Refer to the Site Information for the location of existing things to be protected or procedures for identifying them.

AD: The *Client* will carry out service searches for services and provide the *Contractor* with the information.





The *Contractor* must review the service plans and based on the level of risk, carry out any additional checks prior to commencement of any intrusive works. Any GPR or trial holing required is excluded from this scope and will be instructed as a compensation event if required.

If buried services are known or suspected to be in the vicinity of the intrusive works, these must be physically exposed to identify their location using safe methods. These works must be managed by the *Contractor* safely and effectively.

Where deemed necessary the *Contractor* shall liaise with relevant utility companies to identify the location of their services, in this instance this may also include the *Client* due to the instrumentation needed on the structures being assessed.

If identified the *Contractor* must share all service information with their sub-contractor when required.

S 207 Protection of the works

State any specific requirements for the protection of the works against damage.

AD: The *Client* will provide the *Contractor* with information relating to invasive and protected species that have been recorded historically at each site. The *Contractor* must refer to this information and act accordingly. If required 'Check – Clean – Dry' bio-security measures must be implemented and adhered to prevent the spread of invasive species. If in doubt the *Contractor* must ask the *Client* for further information.

Prior to carrying out any intrusive works, the *Client* will consult their FBG team and identify any environmental concerns at the site. The *Client* will communicate any concerns, constraints and necessary actions to the *Contractor* prior to any intrusive investigation work being carried out.

If intrusive investigations are instructed the *Contractor* protects the works, Material, Plant & Equipment liable to theft or damage by vandalism, the weather, flood or by the method used for carrying out the works.

3. Contractor's design

AD: Not applicable

4. Completion

S 401 Completion definition

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

- 2 relevant documentation to this commission
- Population of the Client's latest version of the Project Cost and Carbon Tool, or its successor.
- · Transfer to the Client of BIM data.

Clause 11.2(2) Work to be done by the Completion Date.

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

- Clause 11.2(2) Work to be done by the Completion Date.
- All works identified in Table 1: CDF ESE Summary of Contractor Deliverables.

S 402 Correcting Defects

Procedures for access for the correction of any Defects and process for liaison with the *Project Manager* and *Client*.

AD: AD: Following Completion of the *works*, the *Contractor* will liaise with the *Project Manager*, and *Client* to agree access to the Site to correct any Defects.

S 403 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*.

S 404 Take over

Identify parts of the works that the Client requires to use prior to Completion without taking it over. Details to include

- · Location of parts of the works and
- Reasons for use.
- Details of Contractor's access provision during periods of use.

AD: For any ground investigation works required the *Contractor* will liaise with the *Client* a minimum of 3 weeks prior to works commencing to review any areas of the site in which the *Client* may require access during the *works*.



5. Programme

S 501 Programme requirements

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

AD: The *Client* will provide the *Contractor* with a copy of accepted Designer's programme on a 4 weekly basis.

The *Contractor's* programme shall include descriptions of any specific requirements such as but not limited to:

- · Start date
- Milestones: key dates to be agreed at start up meeting
- · Completion date
- · Order and timing of the work

S 502 Programme arrangement

Any specific arrangement of the programme, including any requirement for the programme to be produced in levels (summary levels to detail level).

AD: The programme shall be submitted in the form of a Resource Analysed Critical Path Network linked bar chart showing start and finish dates for each activity. It shall clearly identify those activities forming the critical path. The programme is to be produced in an electronic format in Microsoft Project 2016 (*.mpp) and *.pdf formats.

The programme shall be updated every four weeks, with actual and forecast progress against the baseline.

S 503 Methodology statement

Particular requirements for methodology statements, including any specific requirements for resource information.

AD: Occupational health, safety and welfare are of paramount importance to the *Client*. The *Contractor* must view health, safety and welfare as an integral part of carrying out the works and not as stand-alone considerations. The *works* shall be undertaken in a manner that achieves high standards of health, safety and welfare.

S 504 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.

S 505 Information required

A schedule of information to be provided, who it is to be provided by, and the date by which it is to be provided.



AD: Each programme submitted will include dates for the below outputs allowing for time for any information to be issued by the *Client*.

No.	Deliverables	Output by Contractor
1	Basic staffing schedule for ESE & construction phase	Schedule
2	Production ofhigh level construction programme. Details to include:	MS Project Programme
	High level construction durations	
	Identification of long lead items	
	Ecological constraints, such as periods in the year we may not be to work	
	Permitting durations / requirements	
3		Assessment
4	Project specific Noise & Vibration Requirements Identification of 3 rd Party considerations. Such as:	Schedule
4	Landowners	Scriedule
	Notice of Entry	
	Any Permitting required	
	Planning consents required	
	Highway consents	
	Interface with utilities	
	Structural surveys	
	Ecological surveys	
5	Draft Temporary Works Schedule	Schedule
6	Input into optioneering	Ongoing consultation
7	Production of a high level Methodology & Buildability Report for each of the 3 design options	Report
8	High level costs estimate based on 3 concept design options	Budget
9	Review Scope for OBC to FBC	Comments Sheet
10	Review draft Site Information	Comments Sheet
11	Input into Project Carbon Tool	Ongoing consultation
12	Attendance of Risk Workshops	Ongoing consultation
13	Attendance of Monthly Meetings	Ongoing consultation
14	Attendance of site visits	Ongoing consultation
15	Production of monthly project updates	Report/Programme/Cost Forecast

S 506 Revised programme

Any specific requirements for the submission of revised programmes, such as an explanation of changes.

6. Quality management

Detail the requirements for quality control and management.

S 601 Samples

State the materials and samples required including any procedures for submission and acceptance.

AD: Not Applicable

S 602 Quality Statement

State any requirement for a quality statement from the Contractor.

AD: As detailed in the CDF framework agreement, contract data and the Environments Agency's Minimum Technical Requirements.

S 603 Quality management system

State any requirements for a quality management system, including accreditations or legislative standards.

AD: The *Contractor* shall operate a Quality Management System complying with BS EN ISO 9001.

S 604 BIM requirements

The BIM Information Manager is the *Client* Project Manager State any requirements for a BIM data to be collected.

AD: The Contractor shall comply with the Client's BIM requirements.

7. Tests and inspections

AD: Refer to the Environment Agency's Minimum Technical Requirements (MTR) documents.

Upon instruction by the *Project Manager* the *Contractor* will scope any necessary investigative works, such as Topographical (Topo) Survey, Ground Investigations (GI) and Structural Surveys (SS), to allow for budget quotations and programming. These works will be instructed as a compensation event.

The *Contractor* will ensure the reinstatement work is carried out to a high standard. Following completion of works the *Client* will carry out a quality check and approve and sign off the work.

For intrusive surveys the *Contractor* shall gather photographic evidence of the survey site before works commences and on completion of the reinstatement.

Structures with a finish other than plain concrete or vegetation, e.g. brick or stone walls, must be assessed on a case by case basis and a method of intrusive work and subsequent reinstatement work must be agreed with the *Client* prior to carrying out the work. On completion of the reinstatement, if any Defects are noted they must be rectified within 2 weeks of notification and access being granted.

8. Management of the works

The Contract Data identifies the *Client, Project Manager, Supervisor* and *Contractor* and states what each is required to do. It is important, in using this section, not to contradict these obligations and duties. If any of their duties are delegated to Others, the extent of the delegation should be set out.

S 801 Project team – Others

As above

AD:

Name	CDM Role	NEC4 contract role
Environment Agency	Client	Client
TBC	None	Project Manager
TBC	None	Supervisor
Arup	Designer	Others
TBC	Principal Designer	None
BAM Nuttall Ltd	Principal Contractor	Contractor
Sub-contractor(s)	Contractor	Sub-contractor
TBC	CDM Advisor	None

Further to the *Client, Project Manager, Supervisor*, Principal Designer and *Contractor* roles identified previously, the following Environment Agency people are expected to form part of the team:

- EA PCM Project Manager
- EA PCM Project Executive
- P&SO Senior User and Senior User Representative

- Asset Performance Senior User and Senior User Representative
- Environmental Programme Team Senior User
- NEAS Representative
- FBG Representatives
- Cost Manager
- Information Manager
- Carbon and Cost Estimator

S 802 Communications

State any communication procedures which the Contractor is required to follow. Consider the following

- Meetings, attendees and meeting records,
- · Reporting requirements (eg progress reports),
- Information requirements,
- · Electronic systems and communications,
- Use of standard forms and templates,
- Terminology and abbreviations.

AD: Meetings shall be undertaken face to face using Microsoft Teams. The Client has a number of advisory departments that include but are not limited to Area Flood and Coastal Risk Management (FCRM) Teams, Fisheries Biodiversity and Geomorphology (FBG), Hydrometry and Telemetry. Instructions will only be deemed enacted from them when they are confirmed by an instruction from the *Project Manager*.

In managing the works the Contractor shall:

- Attend monthly progress meetings arranged by the Client Client to record and issue minutes. Attend Monthly Project Board meetings and provide input on the progress and programme, risks, issues and exceptions.
- Identify project efficiencies and provide information and evidence for efficiency briefing notes in line with the *Client's* CERT process.
- Produce monthly financial updates giving forecast and actual expenditure.
- Deliver weekly informal programme updates as required (via email/telephone).
- Co-operate with the *Client* in their role of the BIM Information Manager.
- Provide technical support to the *Client* in its public relations and liaisons with landowners, landowners' agents, parish councils, local authorities, members of parliament and stakeholders identified during the contract period.
- The Contractor to make full use of the Client's web-based project collaboration tool (Asite).
 Whenever practical project and contract communications and records are to be distributed and stored using this project collaboration tool.

The *Contractor* shall allow for attendance of key personnel from the *Contractor*'s staff and key Subcontractor's and supplier's staff at meetings and workshops to be chaired and minuted by the *Client* or their delegate, which shall include the following:

- Design review workshops
- Carbon, efficiencies and value engineering workshops
- Risk workshops
- Commercial meetings



Planning and programming workshops

The Contractor, Project Manager and Supervisor shall use the Client's standard contract administration forms which shall be produced and submitted using the Client's collaborative working tool, FastDraft.

S 803 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

S 804 Forecast Monthly

The Contractor is required to provide a monthly forecast on FastDraft for both carbon and cost in accordance with FHU

<u>Framework Heads Up 244 Commercial Clarification 54</u> <u>Framework Heads Up 256 Commercial Clarification 57</u>

S 805 Application for Payment / Invoice

The Contractor is required to provide the backup to their application for payment in the following format:

Worksheet actual Carbon and Cost CDF Lot 2

Submission of an application for payment without this format of backup sheet will not be recognised and treated as a compliant submission.

A monthly report must be provided via FastDraft (using the carbon form) providing:

- 1. actual emissions to date.
- 2. (latest) outturn forecast (based on actuals and remaining emissions to outturn) and
- 3. (Latest) outturn budget / target (set to the verified forecast)

The FastDraft carbon form may be supported by details of actual emissions to date against an agreed breakdown of asset/service/product lines taken from the verified carbon assessment.

This will inform the EA of progress in reducing carbon during construction in the form of a variance between a latest outturn forecast (reported on FastDraft) and verified forecast.

9. Working with the Client and Others

S 901 Sharing the Working Areas with the *Client* and Others

Clauses 25.1 and 60.1(5) Provide a list of activities to be undertaken, explaining the following.

- What is being done,
- · Who is doing it,
- · When it is being done, and for how long,
- Where is it being done,
- How the Contractor is to co-operate and share the Working Areas.

AD: Not Applicable

S 902 Co-operation

Identify known information requirements, for the *Contractor* to obtain from Others or to provide to Others, and timing

AD: The *Contractor* co-operates with affected residents and businesses as necessary to enable efficient execution of the works with minimal disturbance to the local community. *Client* to coordinate between residents, businesses and the *Contractor*.

S 903 Co-ordination

State how the Contractor is to liaise with the Client and Others for the co ordination of works and access.

S 904 Authorities and utilities providers

Identify *works* to be carried out by the authorities and utilities providers. State the responsibility for enquiry, management, procurement and provision of notices and payment.

AD: The *Contractor* shall be responsible for arranging and managing all of the appropriate Highway Authority consents and closures that may be required including footpaths and Public Rights of Way. These are to be instructed as a compensation event and when required and known.

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

Consider the following and document how they are addressed on this contract:

- **Public**: how to effectively engage with, and how they perceive us, the diverse public throughout projects?
- **Project team**: how to create an inclusive environment for our project team?
- **Framework:** identify opportunities to support diverse workforces on our projects across our organisations.

10. Services and other things to be provided

S 101 Ground Investigation

- The Contractor is required to review findings from previous studies and appraisal to identify any gaps in existing data.
- The Contractor is required to use gaps identified above to inform scope of supplementary investigations needed to allow proper progression of appraisal, design and construction methodology (as relevant to the Scope) and reduce risk of unforeseen ground conditions during construction.
- The Contractor is required to communicate with the Consultant and undertake further ground investigations as specified by the Consultant to allow proper progression of appraisal and design.
- The Contractor is required to clearly communicate the specifications for ground investigations as identified above to the site investigation sub-contractor (if they are not undertaking these investigations themselves).
- The Contractor is required to clearly communicate the relevant results of ground investigations back to the Consultant

AD: The *Contractor* shall provide advice on buildability, construction phasing/durations, temporary works, input into the optioneering, identify 3rd party considerations, and produce high level cost estimates for 3 options.

The deliverables are summarised in Table 1 (S 102).

S 102 Carbon minimisiation

Early supplier engagement will contribute and agree to how to minimise carbon throughout the construction stage working with their suppliers on lower carbon products and services that meet the project scope and deliverables. Early supplier engagement will contribute and agree to monthly reporting of emission actuals against forecast (see application for payment section).

Early supplier engagement will contribute and agree to delivery of outturn actual emissions that meet the verified forecast for emissions at project completion and provide the evidence for this set out in the 'as built' carbon appendix and supporting carbon assessment and carbon budget (i.e. ERIC) for verification by an EA appointed Carbon Specialist via Asite. The verification process requires project team engagement with the verifier and may result in actions to:

- 1. update the carbon appendix and supporting carbon assessment and budget (i.e. ERIC).
- set out the reasons for outturn actuals emissions being above/below the verified forecast

The verified outturn actuals and forecast from this process will be required for the performance measure set out in this contract as well as for an EA process of carbon budget authorisation managed by EA Project Sponsor.

11. Health and safety

AD: Health and safety are 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. CDM Regulations (2015) will be adhered to at all times.

It is anticipated that the works on site will not be subject to formal notification to the HSE, however, work carried out will be treated as if it was notifiable.

The Principal Designer under the Construction Design and Management Regulations (2015) will adhere to the Environment Agency SHEW code of practice January 2023.

The *Contractor* and Principal Designer will engage on all matters of Health and Safety and ensure all the necessary health and safety documentation is produced.

The *Contractor* shall contribute to the satisfactory completion of the Principal Designer's Safety, Health and Environmental (SHE) Stop Go Checklist.

The *Client* will provide the *Contractor* with Pre-Construction Information (PCI) where intrusive investigation works are required. The PCI will be approved by the Principal Designer.

The Contractor will produce a Project Execution Plan (PEP) for all intrusive works.

12. Subcontracting

S 1210 Procurement of subcontractors

Subcontractors need to be selected using best value processes.

This requires the *Contractor* to demonstrate that they have made reasonable attempts to obtain 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.

AD: If the *Contractor* subcontracts work, it is responsible for providing the works as if it had not been subcontracted. The contract applies as if a Subcontractor's employees and equipment were the *Contractor*'s.

13. Title

AD: Not Applicable

14. Accounts and records (Options C and E)

Detail any records to be kept by the Contractor, in addition to those listed in subclause 52.2.

S 1401 Additional Records

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

Timesheets and site allocation sheets,

Equipment records,

Forecasts of the total Defined Cost, (Forecasts are to include, but not be limited to costs to date, costs to completion including detailed breakdown of staff, sub-contract and major material items)

Specific procurement and cost reports

The format and presentation of records to be kept are to be accepted by the Client.

Client's work specifications and drawings

S 1701 Client's work specification

Actual specification

AD: The *Contractor* is to carry out the works in accordance with the Environment Agency's Minimum Technical Requirements – Operational instruction LIT 13528

S 1702 Drawings

Contents list or documents or both

AD: No outline designs for the preferred option are currently available which could be provided by the *Client*. However, the Contractor will liaise as directed with Others as detailed design drawings are progressed.

S 1703 Standards the Contractor will comply with

The Contractor should carry out their work using the following guidance AD: and tools

- Project Cost Tool
- Carbon Planning Tools (including the Carbon Modelling Tool and Carbon Stop/Go form)
- 300_10 SHE handbook for managing capital projects
- 300 10 SD27 SHE Code of Practice
- SHEW COP January 2023 Version 5.0

Ref	Report Name	Where used
	Project Cost Tool	Costs
	Sustainability Measures Form	
	Timber Policy Documents	
	300_10 SHE handbook for managing capital projects	
	300_10_SD27 SHE Code of Practice	

Reference should be included to the Carbon Planning Tool.

Be especially careful not to include Site Information in this section of the document.

Appendix 1 Information Delivery Plan (IDP)

The *Consultant* 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 *Consultant* unless it is referenced elsewhere within the Scope.

The *Consultant* 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

Butteryhaugh Site Information $\ensuremath{\mathsf{RevA}}$

1. Service Utility Information Rev0

Location: https://adoddleak.asite.com/lnk/qAjeM98toe7kGyC5eLed

Contents:

Folder 1	Folder 2	Document Type	Document Title	Date
7.1.2.1 Service Utilities		Email	Engie Response - No apparatus	17-Jan-22
7.1.2.1 Service Utilities		Email	GTC Response - No apparatus	17-Jan-22
7.1.2.1 Service Utilities	BT	Drawing	20220113 BT 1	13-Jan-22
7.1.2.1 Service Utilities	BT	Drawing	20220113 BT 2	14-Jan-22
7.1.2.1 Service Utilities	Linesearch	Email	LSBUD-220113-24389756	13-Jan-22
7.1.2.1 Service Utilities	Linesearch	Document	LSBUD-220113-24389756	13-Jan-22
7.1.2.1 Service Utilities	NGN	Email	NGN Response - No apparatus	17-Jan-23
7.1.2.1 Service Utilities	NPG	Document	ny630930.001_A3L	19-Dec-16
7.1.2.1 Service Utilities	NPG	Document	ny630932.001_A3L	07-Jan-04
7.1.2.1 Service Utilities	NPG	Document	ny630934.001_A3L	06-May-13
7.1.2.1 Service Utilities	NPG	Document	ny632930.001_A3L	11-Sep-21
7.1.2.1 Service Utilities	NPG	Document	ny632932.001_A3L	20-Jan-15
7.1.2.1 Service Utilities	NPG	Document	ny632934.001_A3L	21-Jan-00
7.1.2.1 Service Utilities	NPG	Document	NPG Plan	13-Jan-22
7.1.2.1 Service Utilities	NWL	Document	RE Butteryhaugh Kielder - water mains plans	17-Jan-22
			Your request has been successfully received by Northumbrian Waters Asset	
7.1.2.1 Service Utilities	NWL	Email	Records Department Inbox	13-Jan-22
7.1.2.1 Service Utilities	NWL	Document	386161802_Sewer	13-Jan-22
7.1.2.1 Service Utilities	NWL	Email	Butteryhaugh Kielder - water mains plans	13-Jan-22
7.1.2.1 Service Utilities	Virgin	Document	Virgin Media - Plan1	13-Jan-22
7.1.2.1 Service Utilities	Virgin	Document	Virgin Media - Plan2	13-Jan-22

Butteryhaugh Red Line Boundary Rev A, Dated 17/08/2023