



Framework: Supplier: Company Number:

Geographical Area: Contract Name: Project Number:

Contract Type: Option: Collaborative Delivery Framework BAM Nuttall Ltd 00305189

North East Allerton Bywater Riverside Embankment

Engineering Construction Contract Option C

Contract Number:

Stage:

C25315

Construction

Revision	Sta	itus	Origi	nator	Revi	ewer	Date	

ENGINEERING AND CONSTRUCTION CONTRACT under the Collaborative Delivery Framework CONTRACT DATA

Project Name	Allerton Bywater Riverside Embankment
Project Number	
	This contract is made on 29 July 2024 between the <i>Client</i> and the <i>Contractor</i>
	 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 <i>Client</i> and the <i>Contractor</i> 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

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 for resolving and avoiding disputes W2
	Secondary Options
	X2: Changes in the law
	X7: Delay damages
	X9: Transfer of rights
	X10: Information modelling
	X11: Termination by the <i>Client</i>
	X15: Contractor's 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

Delivery of the Allerton Bywater construction project

The Client is

Environment Agency

Address for communications

Lateral 8 City Walk

	Leeds LS11 9AT
Address for electronic communications	
The Project Manager is	
Address for communications	
Address for electronic communications	
The Supervisor is	
Address for communications	
Address for electronic communications	
The Scope is in	
The Site Information is in	
Pre-Construction Document -	
The boundaries of the site are	
Location Plan -	
The language of the contract is English	
The law of the contract is	
the law of England and Wales, subject to the juriso	liction of the courts of England and Wales
the law of England and Wales, subject to the juriso The period for reply is 2 weeks	liction of the courts of England and Wales
the law of England and Wales, subject to the jurisd The period for reply is 2 weeks The following matters will be included in the Early V	liction of the courts of England and Wales Narning Register
the law of England and Wales, subject to the juriso The period for reply is 2 weeks The following matters will be included in the Early M	liction of the courts of England and Wales Narning Register
the law of England and Wales, subject to the jurisd The period for reply is 2 weeks The following matters will be included in the Early V	liction of the courts of England and Wales Warning Register
the law of England and Wales, subject to the jurisd The period for reply is 2 weeks The following matters will be included in the Early N	liction of the courts of England and Wales Narning Register

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

2 weeks

3 Time

The starting date is	01 August 2024
The access dates are part of the Site	date
Asite	01 August 2024
FastDraft	01 August 2024
Access to whole site	01 August 2024

	The Contractor submits revised programmes at intervals no longer than	4 weeks
	The Completion Date for the whole of the works is	10 February 2025
	The <i>Client</i> is not willing to take over the <i>works</i> before the Completion Date	
	The period after the Contract Date within which the <i>Contractor</i> is to submit a first programme for acceptance is	4 weeks
4 Quality management	t	
	The period after the Contract Date within which the <i>Contractor</i> is to submit a quality plan is	4 weeks
	The period between Completion of the whole of the <i>works</i> and the <i>defects date</i> is	52 weeks
5 Payment	The defect correction period is2 weeksexcept that• The defect correction period foris• The defect correction period foris	
	The <i>currency of the contract</i> is the £ sterling	
	The assessment interval is Monthly The Client set total of the Prices is	
	The <i>interest rate</i> is per annum (not less than 2) above the Base rate of the Bank of England	
	The Contractor's share percentages and the share ranges are	

6 Compensation events

The place where weather is to be recorded is

The nearest calibrated Met Office Weather Station to the site

- 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 bound
- the number of days with snow lying at

hours GMT 09:00

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
 Ryhill

 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

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

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	



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.

Z 6 Payment for Work

Delete existing clause 11.2 (31) and replace with:

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

Z7 Contractor's share

After cl54.2 and before cl54.3, insert the following additional clause:

54.2A If, prior to Completion of the whole of the works, the Price for Work Done to Date exceeds 111% of the total of the Prices, the amount in excess of 111% of the total of the Prices is retained from the Contractor.

Z10 Payments to subcontractors, sub consultants and suppliers

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 <i>Contractor</i> 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 <i>performance</i> <i>table</i> unless later changed in accordance with the contract.
15.1	In Clause 15.1 add as a new bullet between the second and third bullet:
Early Warnings	"• result in a target in the Performance Table not being met,"
Performance Measurements	
57	Add as Clause 57:
57.1	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 <i>Contractor</i> pays the amount stated in the Performance Table,
	• if the relevant performance exceeds or meets the target stated in the Performance Table, the <i>Contractor</i> 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

 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

per day

OPTION X7: Delay damages

X7 only

Delay damages for Completion of the whole of the works are

OPTION X10: Information modelling



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

OPTION X15: The Contractor's design

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

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

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

Rev 1.9.2a

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 terms under this contract No beneficiary under this contract

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 <i>Contractor</i> is Name		BAM Nuttall Ltd		
	Address for communica	ations	St James House Knoll Road Camberley Surrey GU15 3XW		
	Address for electronic	communications			
	The fee percentage is		Option C		
	The working areas are		The Site, the Contracto	rs premises, the Consultat	nt premises
	The <i>key persons</i> are				
		Name (1) Job Responsibilities Qualifications Experience			
	The <i>key persons</i> are				
		Name (2) Job Responsibilities Qualifications Experience			
	The key persons are				
		Name (3) Job Responsibilities Qualifications Experience			
	The <i>key persons</i> are				
		Name (4) Job Responsibilities Qualifications Experience			
	The following matters	will be included in th	e Early Warning Registe	er	

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

The activity schedule is

Allerton Bywater Riverside Embankment - Clause 31 Program

5 Payment

Resolving and avoiding disputes

The Senior Representatives of the Contractor are



X10: Information Modelling

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

Contract Execution

Client execution

Signed Underhand by [PRINT NAME]

for and on behalf of the Environment Agency



Contractor execution



Environment Agency

NEC4 ECC engineering and construction contract

SCOPE

Template Change Log

Revision date	Summary of changes	Version number
14 March 2023	Changes made during CDF extension	7
27 Oct 23	 Cover page instructions for EA PM updated Change log for template changes added S 215 updated to include defined carbon terms & reflect the agreed carbon methodology V3.1 S 216 for reporting updated to take account of FOF and MMF alternative procurement going through CDF and ACCD Pilot and carbon terminology S 1502 rewording for consistent terminology and clarity around ACCD Pilot S2000 renumbering to align with NEC standards (was previously \$1700) 	8
09 Nov 23	EIR references updated	8.1

Project / contract information

Project name	Allerton Bywater Riverside Embankment
Project SOP reference	
Contract reference	C25315
Date	04/07/2024
Version number	V5.0
Author	

Revision history

Revision date	Summary of changes	Version number
11/02/2024	First issue	1.0
03/05/2024	Updated following collaborative meeting with	2.0
05/06/2024	Finalised following comments from and review with	3.0
27/06/2024	Updated following comments from	4.0
04/07/2024	Updated following comments from	5.0

Documents included in Scope by reference

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

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

In the event of conflict, this Scope shall prevail.

The works is to be compliant with the following: DOCUMENT	Document Title	Version No	Issue date
LIT 13258	Minimum Technical Requirements – Standard	V 13	June 2024
LIT 65150	Minimum Technical Requirements – Environment and Sustainability	V 3.0	7 th April 2023
LIT 17641	Exchange Information Requirements	V 3.0	05 th January 2023
LIT 16559	SHEW CoP	V 6	September 2023
LIT 12507	(SHE) handbook for managing capital projects	V 7	29th March 2023
	Project Information Delivery Plan	Appendix 1	This document
LIT 14284	Carbon Operating Instruction	V 6.0	15 th August 2023
FHU 309	Carbon methodology	V 3.1	02/10/2023

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S 100 Description of the *works*

S 101 General Description of the *works*

1. The drawings describing the *works* are included in **Appendix 3**.



2. The project seeks to mitigate for a failing riverbank wall. A number of defects have been noted in the existing flood defence and sections of the wall are considered to be in poor condition. Various options have been considered; and a review concluded that inserting platypus anchors into the existing structure to stabilise it would be the best option

S 102 Purpose of the works / Outcome required

S 102 (1) Purpose

1. The project seeks to extend the asset life and sustain the current standard of protection whilst the strategic approach to Flood Risk Management in the medium to long term is developed.

S 102 (2) Outcome Required

1. Installation of Platipus Anchors in order to retain the current Standard of Projection of the flood embankment.

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

S 201 General Constraints

S 201 (1) Working Hours

1. Working hours are restricted to 07:30 to 18:00 Monday to Friday. Work outside of these hours to be agreed in advance with the EA Project Manager.

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. Work sites will be secured at all times during the working shifts, either with existing provisions, or with Heras-type fencing (or similar). Outside working hours CCTV cameras will be in place and monitored by remote monitoring station.

S 204 Security and identification of people

1. Visitors will be guided to the site office, where a suitable induction will be provided to make the persons aware of the restrictions, requirements and ongoing works.

S 205 Protection of existing structures and services

- 1. Any trees that may be required to be trimmed to allow access for site plant and materials, will be assessed by the site team and pruned by a trained arborator after a survey by trained ecologist, if required.
- **2.** Any structure or service affected by the works needs to be considered for protection. Specific assets are identified within the site information.

S 206 Protection of the *works*

- 1. All buildings and gates will be closed and locked when access is not required. Existing site infrastructure, not required for the works, will be segregated from the operations.
- 2. The *Contractor* shall take measures to protect the Site and take responsibility for repairing and restoring any areas of the existing structures, apparatus, roads, access ways, footpaths, fences gates etc that are damaged during the works to a condition equal to the condition at commencement of the works.

S 207 Cleanliness of the roads

1. Deliveries will be scheduled to avoid periods of wet weather, where appropriate. Vehicles will not leave bound surfacing where possible. If materials are deposited on public highways, these will be removed by the *Contractor*.

S 208 Traffic management

1. There is no requirement for traffic management on the public highway. Due to the nature of the sites, deliveries will be scheduled to avoid vehicles blocking public highways. Signage will be placed, and a traffic management plan issued to aid deliveries.

S 209 Condition survey

1. Pre-commencement and post completion surveys will be taken and passed to the *Client* by the *Contractor* upon completion of the works.

S 210 Consideration of others

1. Working hours are to be restricted to 07:30 to 18:00 Monday to Friday.

S 211 Control of site personnel

1. All operatives to report to the site office prior to commencing works on Site. Upon first visit to site, operatives will be inducted and have their competencies checked.

S 212 Site cleanliness

1. Waste facilities will be provided within the site boundaries, which will be emptied regularly and disposed of at a recycling facility where possible.

S 213 Waste materials

1. All waste is to be recycled where possible. Separate facilities will be made available to allow for the segregation of waste.

S 214 Deleterious and hazardous materials

1. Any hazardous materials will be stored, used and disposed of in accordance with COSHH and environmental waste regulations, and current SHEWCOP.

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 <u>deliverable of the service</u> 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 <u>business case project stages</u> 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 <u>construction</u> 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 Calculatorpart of ERIC application seen abbreviated to CCCarbon Modelling toolpart of ERIC application seen abbreviated to CMTEA carbon specialistthe 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 CarbonGHG (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	foreca	ast foi	rm in Fast	Draft to
be	completed	monthly	as	per	contract	Scope
requ	uirement - rep	porting is f	or Pro	oject (I	not contrac	ct).
ecas	tmenu optior	n in FastD	raft ca	an't be	e changed	but add
Fas	tDraft to nam	e in comm	nunica	tions	to distingui	sh from
cap	ital carbon fo	recast				
	Denc	otes any F	astD	raft re	eported da	ta from
carb	oon assessm	ents that a	ire 'wo	ork in	progress' v	ersions
mai	ntained by th	ne Contra	ctor a	nd wil	ll not there	fore be
requ	uired to be ve	erified by t	he EA	۱.		
This	s is the collo	oquial nan	ne giv	/en to	o a "works	heet of
actu	ial carbon an	d cost dat	a" as	more	detailed e	vidence
of e	missions and	l expendit	ure in	a repo	orting peric	od. Use
	requestion of e	be completed requirement - rep ecast menu option FastDraft to nam capital carbon fo Denc carbon assessm maintained by th required to be ve This is the collo actual carbon an of emissions and	be completed monthly requirement - reporting is f ecast menu option in FastD FastDraft to name in comm capital carbon forecast Denotes any F carbon assessments that a maintained by the <i>Contrat</i> required to be verified by th This is the colloquial nam actual carbon and cost dat of emissions and expenditor	be completed monthly as requirement - reporting is for Pro- ecast menu option in FastDraft ca FastDraft to name in communica capital carbon forecast Denotes any FastD carbon assessments that are 'wo maintained by the <i>Contractor</i> a required to be verified by the EA This is the colloquial name giv actual carbon and cost data" as of emissions and expenditure in	precast Form Carbon forecast for be completed monthly as per requirement - reporting is for Project (ecast menu option in FastDraft can't be FastDraft to name in communications capital carbon forecast Denotes any FastDraft re carbon assessments that are 'work in maintained by the <i>Contractor</i> and wil required to be verified by the EA. This is the colloquial name given to actual carbon and cost data" as more of emissions and expenditure in a report	be completed monthly as per contractbe completed monthly as per contractrequirement - reporting is for Project (not contract cast menu option in FastDraft can't be changedFastDraft to name in communications to distinguicapital carbon forecastDenotes any FastDraft reported dacarbon assessments that are 'work in progress' vmaintained by the Contractor and will not thererequired to be verified by the EA.This is the colloquial name given to a "worksactual carbon and cost data" as more detailed erof emissions and expenditure in a reporting peric

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*

- **1.** Has a corporate and publicly declared target to reach net zero by 2030.
- 2. Will ensure FastDraft Carbon Forecast (*Contractor* Carbon Forecast Form) is submitted monthly and Verified at the appropriate times.
- 3. Will Establish the ECC Carbon Target and share with the *Contractor*.
- 4. It is at the *Client's* discretion to decide if Scope change is significant and merits a re-assessment of the ECC Carbon Target.
- 5. Will consider *Contractor* request(s) to re-assess the ECC Carbon Target in reference to S 215 (3) 3.
- 6. On accepting a request to re-assess the ECC Carbon Target the *Client* will require the *Contractor* to provide 'updated' versions of the Carbon Appendix and ERIC and on provision of that, will work with the EA Carbon Specialist to obtain verification and provide a new ECC Carbon Target.
- 7. *Project Manager* 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 <u>LIT 13283</u> - <u>Monthly work progress summary - construction stage.docx</u>
 - 1. [add any additional monthly reporting]

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

1. This Project requires that the <u>LIT 61272</u> '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. Not applicable

S 302 Design submission procedure

1. Not applicable

S 303 Design approval from Others

1. Not applicable

S 304 *Client*'s requirements

1. Not applicable

S 305 Design co-ordination

1. Not applicable

S 306 Requirements of Others

1. Obtain and work in accordance with flood risk activity permit

S 307 Copyright / licence

1. Not applicable

S 308 Access to information following completion

1. The *Contractor* shall provide information required for the Health and Safety File to the Principal Designer.

S 309 Site investigation

1. Not applicable

S 400 Completion

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 Provide all information to the Principal Designer, if the Principal Designer is compiling the Health and Safety File
 - (2) As Built Drawings Mark ups shall be provided by the *Contractor* the *Client's* Designer is to update Construction Issue drawings to as built status. Verification of the Carbon Assessment supported by the *Client's* latest version of the Carbon Appendix and Cost and Carbon Tool, or its successor.
 - (3) As Built Carbon Appendix Delivery of the Final Carbon Appendix, this is to be saved into ASite.
 - (4) Carbon Assessment Delivery of the Carbon Assessment, this is to be saved into ASite
 - (5) Verification of Carbon Assessment and Carbon Appendix by Carbon Specialist
 - (6) BIM Data Transferred to the *Client* databases of BIM data
 - (7) Clause 11.2(2) Work to be done by the Completion Date as identified by Contact Data Part 1.

S 402 Sectional Completion definition

1. Not applicable

S 403 Training

1. Not applicable

S 404 Final clean

1. A final clean, removal of temporary structures, materials, protection and tools will take place where necessary upon completion of the works.

S 405 Security

1. Not applicable

S 406 Correcting Defects

1. Access to the Site to correct Defects with be granted to the *Contractor* by the *Client*. All Defects are to be corrected before the Defects Date.

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 three weeks in advance of the planned take over or Completion.

S 408 Take over

1. Not applicable

S 500 Programme

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. The programme will be programme to be submitted in Microsoft Project and PDF formats every 4 weeks, it shall clearly identify activities forming the critical path. Updated programmes must comply with clause 32 of the ECC.

S 503 Methodology statement

1. Programmes will be submitted via Fastdraft, including detail of methodology and planned resources

S 504 Work of the *Client* and Others

1. Not applicable

S 505 Information required

1. Not applicable

S 506 Revised programme

1. Not applicable

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:

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

1. Not applicable

S 602 Quality statement

1. Not applicable

S 603 Quality management system

- 1. Maintain a Quality Management System in line with ISO 9001.
- 2. Quality control will be in line with the BAM Project Execution Plan and Quality Inspection and Test Plans. Requirements of which will be derived from the *Designers* design drawings.

S 604 BIM requirements

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

S 700 Test and inspections

S 701 Tests and inspections

- 1. The tests and inspections required to be undertaken by the *Contractor* in line with the contract. The additional tests are to be undertaken by the *Contractor* for the Scope of this project: (Clause 40.1, 40.2, 41.1 and 60.1 (16)):
- Embankment formation inspection prior to topsoil placement. Visual inspection to confirm the embankment material is clay, shall be undertaken jointly with the ECC site supervisor. A record of the inspection is required, along with any locations where unacceptable material is encountered and the details of the repair work. The risk of unsuitable materials will be treated as a CE.
- Imported material onto site, including topsoil and/or Class 2A or 2C material. Imported topsoil and Class 2A or 2C material shall be tested in accordance with the Specification for Highways Works, Series 600. Representative supplier laboratory test reports for the imported material shall be provided to the ECC Site supervisor and Designer for acceptance prior to import to site.
- Certificates for geotextile products used at the site shall be recorded and shared with the ECC Site Supervisor for acceptance and inclusion in the Health and Safety file. Record drawings for all geotextile products shall be maintained by the *Contractor*, including locations of material production faults, locations of mechanical damage and details of the repair work.
- Platypus anchors suitability testing. Prior to the installation of the anchors, 6 no. vertical load tests are required at ~20 to 25m spacing along the embankment crest to validate the anchor design capacity. The anchor tests shall be undertaken from the embankment crest, with the anchor installed to working depth of the anchor and tested for the design working load. The test shall be undertaken using the same anchor (S6), but with a larger wire (8mm instead of 6mm) to ensure the capacity of the system is tested rather than to test the anchor to failure. Results of the anchor testing shall be reviewed by the Supplier of the Platypus Anchor and the Designer. Following the test, rods and wire to be removed to a minimum of 1m below embankment ground level.

S 702 Management of tests and inspections

1. The Management of the tests and inspections will be by the BAM Site Agent who will develop the plan and program with the relevant Subcontractors. Dates and activities for the tests will be notified to the ECC Site Supervisor.

S 703 Covering up completed work

1. No operation shall be carried out or covered up without full and complete notice being given to the Supervisor by the *Contractor* in reasonable time

to enable the Supervisor to make such arrangements as he deems necessary for inspection and checking.

S 704 Supervisor's procedures for inspections and watching tests

1. The ECC Supervisor will be given reasonable notice of any planned tests to be carried out by the *Contractor* as identified with in the ITP and commissioning program.

S 800 Management of the works

S 801 Project Teams – others

1. Further to the *Client*, Project Manager, Supervisor, Principal Designer and *Contractor* roles identified previously within the contract.



Reference in the Scope to the engineer or contract administrator should be read as references to the Supervisor or the Project Manager, as appropriate.

If the *Contractor* is in any doubt as to whether a matter should be raised with the Project Manager or the Supervisor, he shall ask the Project Manager to decide the issue.

S 802 Communications

- For all contractual notifications, FastDraft will be used.
- Meetings will be held on Teams on a weekly basis on a day to be agreed. Invites will be sent to the *Client* and *Contractor* teams as necessary.
- The meetings will follow the *Contractor's* standard template and include, Safety, Programme, Design, Financial, Risk, Liaison and any other matters arising from the works.
- Monthly progress report (Construction Monthly report)
- Information requirements,
- Electronic systems and communications,
- BAM and EA standard forms will be adopted for communication
- Where abbreviations are used for the first time, the full wording should be used. A glossary of terms will be included in the handover documentation for clarity.

The *Contractor* shall prepare monthly progress reports shall be prepared in pdf version by the *Contractor* and provided to the *Project Manager* for distribution to the project team a minimum of three working days in advance of each monthly progress meeting which they shall attend. The progress report shall include those details listed in the Minimum Technical Requirements Cl 1.30 and also:

Progress

o Activities started, progressed and completed during the month;

- o Activities planned for the forthcoming month;
- o Summary of ground conditions encountered;
- o Summary of weather conditions experienced; and
- o Instructed changes to the Scope.

Programme

o A marked up copy of the current Accepted Programme showing progress and percentage completion of each activity; and

o Any potential risks which may affect the latest Accepted Programme.

Issues

o Problems encountered or anticipated.

Information/services required from the Client.

Information required by the Contractor.

Public Relations

- o Contacts with the public or other third parties; and
- o Complaints or claims.

Health & safety incidents

Environmental

- o Pollution incidents, etc.; and
- o Recycling and waste reports.

Efficiency register

Team Performance Measures (or equivalent)

Representative progress photographs.

Any other issue/subject requested by the Project Manager

S 900 Working with the *Client* and Others

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

1. The *Contractor* will take over CDM control of the works area for the duration of the works. The *Client* will be afforded access however they will need to adhere to the *Contractor's* site rules.

S 902 Co-Operation

1. The *Contractor* to work in a collaborative manner with the *Client* and Others throughout the durations of this contract.

S 903 Co-Ordination

1. A designated *Contractor's* supervisor or deputy will be on site at all times during working hours. A call out number will also be provided to the *Client*. All EA staff and contractors should report to site office prior to entering the working area.

S 904 Authorities and utility providers

- 1. The *Contractor* shall consult with utility providers to confirm measures required to ensure safe construction of the works, and to duly allow for such provision as is required.
- 2. Information concerning the believed location of apparatus of the Statutory Undertakers, Highway Authority or others is included, where available, in the Site Information and Pre-Construction Information.
- **3.** The *Contractor* liaises with all relevant statutory undertakers, the Highway Authority and other owners of apparatus before designing (where relevant) or commencing any excavations and satisfies himself as to the exact position of existing apparatus which may affect or be affected by the construction of the works.
- 4. Where any portion of the *works* is close to, across or under any existing apparatus of statutory undertakers, the Highways Authority or other parties, the *Contractor* temporarily supports and works around, under or adjacent to all apparatus in a manner designed to avoid damage, leakage or danger and to ensure uninterrupted operation.
- 5. Should any leakages or damage to existing services, highways or apparatus be discovered, the *Contractor* at once notifies the *Project Manager* and the Statutory Undertaker, Highways Authority or owner concerned, as appropriate and the *Contractor* affords every facility for the repair or replacement of the apparatus affected.
- 6. Before mechanically excavating close to services, the *Contractor* undertakes full preliminary investigations by means of electromagnetic and other locating devices and hand-dug trial holes to locate the existing services. The *Contractor* notifies the *Project Manager* of the results of these investigations without delay.

- 7. The *Contractor* notifies the *Project Manager* in advance of any additional diversion or removal of apparatus, which the *Contractor* requires for his own convenience or because of his proposed methods of working. The *Contractor* arranges (including obtaining any necessary permissions, notices, licences or consents) and undertakes any such additional diversion or removal of apparatus but complies with any requirements of the *Project Manager*.
- 8. The *Contractor* provides a record drawing of services and apparatus encountered and highlights the differences with the information provided by the Statutory Undertaker and Highway Authority and issues this to the *Project Manager.*
- **9.** The *Contractor* complies with HSE Guidance Notes, statutory undertakers and private company requirements when working in the vicinity of their apparatus.
- **10.** Identify suitable haul routes, consulting the Local Authority/Highway Authority for any particular traffic management measures that might be required (Construction Traffic Management Plan).

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

1. The *Contractor* shall engage with Others to create a diverse and inclusive environment throughout the duration of the works.

The *Contractor* shall inform the *Client* of any opportunities to support diverse workforces and engagement throughout the duration of the works.

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*

- 1. Meeting rooms: one will be available on Site for up to six persons.
- 2. Desks: two hot desks to be made available for the use by the *Client*.
- 3. Storage facilities limited and by agreement
- **4.** Catering welfare facilities will be provided where food and drinks can be stored or warmed as required.
- **5.** Medical facilities and first aid will be provided by the *Contractor*.
- 6. Sanitation on site facilities for washing and toilet will be provided by the *Contractor*. These will be cleaned on a weekly basis.
- 7. Security will be monitored CCTV camera(s) provided by the *Contractor*.
- 8. Copying, will not be available on Site
- **9.** Broadband will be via phones or 4G cards to be provided by the individual employers
- **10.** Computer equipment and services will be provided by the employer of the individual.
- **11.** Sign boards and other signage will be provided by the *Contractor*, other than scheme boards which will be provided by the *Client* (if required).
- **12.** Safety equipment and services, required for the construction will be provided by the *Contractor*. Where the equipment is essential for the operation of the facility, these will be maintained and access provided through the duration of the construction by the *Contractor*.
- **13.** Fences, screens and hoardings, will be maintained where in place with localised fencing provided by the *Contractor* to ensure the safety of the public and the workforce.

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

- **1.** Access to the Site.
- **2.** Space for the accommodation.
- **3.** Payment of any licence fees, rent or compensation payments to landowners for any part of the site.

S 1100 Health and safety

S 1101 Health and safety requirements

1. Occupational health, safety and welfare are of paramount importance to the *Client*. The *works* should be undertaken in a manner that achieves high standards of health, safety and welfare.

The Principal Designer is provided by the *Client*.

- 2. The *Contractor* shall be cognisant of the CDM Pre-construction Information, the *Client's* Health and Safety Policies and the 'SHEW Handbook' and must ensure full compliance with the *Client's* 'Safety is Paramount' code of practice. The *Contractor* shall ensure that all parties under sub-contract are cognisant of the requirements of these documents.
- **3.** The *Contractor* shall prepare the Construction Phase Plan before work commences on site. The *Contractor* shall issue the Construction Phase Plan to the Project Manager for acceptance. The Construction Phase Plan must be accepted by the Project Manager before work can commence on site.

Emergency Planning

- 4. The *Contractor* shall prepare an Emergency Action Plan for dealing with on-site or third-party emergencies that affect the works. This should include actions to be taken by the *Contractor* when managing flood risk.
- 5. The *Contractor* shall produce and provide to the *Project Manager* an emergency contact list which includes at least two names of responsible representatives of the *Contractor* and telephone numbers at which they can be contacted at all times outside normal working hours. One of these telephone numbers should be that of the *Contractor's* construction manager.
- 6. The *Contractor* shall submit digital copies of the plan to the Project Manager for information only and distribution to the *Client*, within 7 days of the *Contractor* gaining access to any part of the Site. The Emergency Action Plan shall include, as a minimum, the following:
 - Emergency contact list all contact names, organisation, telephone numbers etc;
 - Items of Equipment, Plant and Materials that will be made available for use out of hours;
 - Out of hours contact numbers to be provided by the Contractor.
 - Method statements for dealing with Others or Environment Agency Emergencies and the Emergency Services;
 - Method statements for rescuing and recovery of personnel, Plant and Materials, Equipment etc in the event of an emergency; and
 - Method statements for dealing with pollution as a result of the works.

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

Emergency arrangements

- 8. The *Contractor* acquaints himself and his employees with any relevant emergency arrangements including those of the *Client*. The *Contractor* provides emergency vehicle access to properties at all times and gives access to members of the emergency services who may inspect the Site.
- **9.** The *Contractor* provides access to all parts of the Site for the *Client* to undertake emergency inspections to drainage infrastructure or repairs to flood defences.

Floods

- **10.** Hydrometric and flood warning information is available from the Environment Agency.
- **11.** The *Contractor* provides emergency 24 hour contact details to the *Client* for registering with the Environment Agency's Flood Warning Schedule 8.
- **12.** The *Contractor* provides emergency 24 hour contact details to the *Client* for registering with the Environment Agency's Incident Communications Service (ICS).
- **13.** The *Contractor* may obtain regular weather forecasts from the *Client*. The *Client* is not liable for any consequences if it is unable to provide either flood warnings or weather forecasts, or if they prove inaccurate.
- **14.** The *Contractor* monitors river levels and weather forecasts on a daily basis and promptly provides copies of the information to the Supervisor.
- **15.** The *Contractor* provides an Emergency Flood Evacuation Plan for submission to the Local Planning Authority via the *Client* prior to any construction works taking place.

Services

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

First Aid Provisions

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

Site inductions & toolbox talks

18. The *Contractor* shall ensure that all personnel before entering the Site are fully inducted on site procedures and rules. Personnel shall be made

aware of any relevant arrangements, including those of the *Client*, which are in existence for dealing with emergencies.

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

Smoking restrictions

- **20.** Smoking on the Site is permitted in areas designated by the *Contractor* but is subject to the following exclusions:
- Smoking will not be permitted whilst operating mobile Equipment;
- No smoking in any enclosed or semi-enclosed areas.

Reporting

- **21.** The *Contractor* shall report any health and safety incidents on site using the procedure outlined in the *Client's* "Safe Construction Code of Practice". The *Contractor* shall provide a written report within twenty-one days of the incident, unless otherwise agreed with the Project Manager.
- **22.** The *Contractor* is to liaise with the Supervisor in the joint monthly submission of an agreed Health & Safety report to the *Client* and the Project Manager.
- 23. The *Contractor* familiarises themselves with the format of the *Client's* standard template for the Health & Safety File and provides all information necessary for the Principal Designer to produce the Health & Safety File in said format. The Principal Designer shall also provide an up to date copy of the Health and Safety File to the *Contractor*, who retains the File on the Site.
- **24.** The Contractor shall:
- Undertake the role of Principal *Contractor* under CDM Regulations and liaise with other duty holders as necessary.
- Organise and chair health and safety meetings as required;
- Undertake coordination and cooperation with the Project Manager, Supervisor and Principal Designer including provision of information along with As Built drawings for the Health and Safety File;
- Update the Health and Safety File noting any incidents or near misses during the construction works;
- Record incidents and/or near misses in the accident book and advise the *Client* of items to be recorded on SHERMS and AIRSWEB.
- Produce Risk Assessments and Method Statements (RAMS) for works which they will undertake.

S 1102 Method statements

The overall Scheme Project Execution Plan (PEP) will be provided by the *Contractor* for acceptance by the *Client's* CDM Advisor along with any RAMS for operations deemed to be high risk by the *Client's* CDM Advisor.

S 1103 Legal requirements

The Construction (Design and Management) Regulations 2015 (the CDM Regulations) apply to the works.

The Principal Designer is:



The *Contractor* copies to the Project Manager all correspondence with the Principal Designer.

S 1104 Inspections

- 1. The Project Manager may inspect the *Contractor's* compliance with the *Client's* and / or the *Contractor's* safety, health and environment requirements and procedures. The inspection may be unannounced.
- 2. The Principal Designer will undertake regular checks on the *Contractor's* Health and Safety procedures including record of site inductions, tool box talks, confined space procedures and certifications and PPE. The *Contractor* shall make available within two working days all relevant Health and Safety information pertaining to this contract e.g. records of site induction, tool box talks, procedures etc. for inspection by the Principal Designer.

S 1200 Subcontracting

The Contractor may subcontract work using an NEC contract.

S 1201 Restrictions or requirements for sub contracting

- 1. All Subcontractors that the *Contractor* intends to engage in the works will be notified to the *Client*.
- 2. All work undertaken by the subcontractors will be the responsibility of the *Contractor*.

S 1202 Acceptance procedure

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

S 1203 Procurement of subcontractors

- 2. Sub-contractors need to be selected using best value processes.
- 3. 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.
- 4. 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

1. Not applicable

S 1302 Materials form excavation and demolition

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

The *Client* retains sole copyright on all documents, designs, photographs and publicity material developed for the work.

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

Not used.

S 101 Additional Records

- 1. Timesheets and site allocation sheets,
- **2.** Equipment records,
- 3. 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)
- **4.** Specific procurement and cost reports

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

Contract administration

The *Project Manager* and the *Supervisor* use the standard contract administration system Fastdraft.

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

Statement of Account

The *Contractor* shall prepare his final account complete with full supporting information cross referenced as appropriate. A full set of works record sheets, invoices, site instructions and compensation events shall be submitted with the final account.

Monthly Progress Reports

The *Contractor* submits monthly progress reports to the *Project Manager*, on a regular date to be stated by the *Project Manager*. The monthly progress reports contents are discussed in S802.

Photographs

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

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

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

S 102 Application for Payment / Invoice

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

S 102 (1) Appropriate Sheets

- 4. 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.
- 5. FastDraft Carbon Forecast (Monthly Reporting) provided via *Contractor* Carbon Forecast Form in FastDraft
- 6. 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
- 7. 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 200 Parent Company guarantee (Option X4)

1. Not Applicable

S 300 Performance Bond (only applicable to with X13)

Not applicable

S 400 Advanced Payment Bond (only applicable with X14)

Not applicable

S 500 Low Performance Damages (only applicable with X17)

Not applicable

S 600 *Client*'s work specifications and drawings

S 601 *Client's* work specification

1. Not applicable

S 602 Drawings

Ref	Rev	Drawing Name	Date
	P03	Wall Repair Sections and Details	07/11/23
	P02	Site Location Plan	07/11/23
	P03	General Arrangement and Hazards and Constraints Plan	07/11/23

S 603 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
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
N/A	Carbon Appendix	Carbon
300_10	300_10 SHE handbook for managing capital projects	H&S
300_10_SD27	300_10_SD27 SHE Code of Practice	H&S

S 604 Appendix with additional standards the *Contractor* will comply with

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

- Appendix 1 Information Delivery plan
- Appendix 2 Visualisation Scope
- Appendix 3 Drawings
- Appendix 4 BIM Protocol Production and Delivery Table
- Appendix 5 BIM Protocol Employers Information requirements

Appendix 1 – Information Delivery Plan (IDP)

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

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

The *Contractor* shall register for an Asite Account and request access to the project 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 <u>https://adoddleak.asite.com/lnk/5A95rLxSkL7gEpunXgb</u>. 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 – Drawings

Ref	Rev	Drawing Name	Date
	P03	Wall Repair Sections and Details	07/11/23
	P02	Site Location Plan	07/11/23
	P03	General Arrangement and Hazards and Constraints Plan	07/11/23

Appendix 4 – BIM Protocol – Production and Delivery Table

Appendix 5 – BIM Protocol – Employers Information requirements