



Framework: Collaborative Delivery Framework
Supplier: BAM Nuttall Ltd
Company Number: 00305189

Geographical Area: North East
Project Name: Wheatley Park Embankment OBC appraisal
Project Number: [REDACTED]

Contract Type: Engineering Construction Contract
Option: Option C

Contract Number: project_37052

Stage: Other

Revision	Status		Originator		Reviewer		Date
V1	Superseded		[REDACTED]		[REDACTED]		11/08/2022
V2	Final		[REDACTED]		[REDACTED]		15/08/2022

ENGINEERING AND CONSTRUCTION CONTRACT under the Collaborative Delivery Framework CONTRACT DATA

Project Name Wheatley Park Embankment OBC appraisal

Project Number [REDACTED]

This contract is made on 04/10/2022
between the *Client* and the *Contractor*

- This contract is made pursuant to the Framework Agreement (the "Agreement") dated 10th day of April 2019 between the *Client* and the *Contractor* in relation to the Collaborative Delivery Framework. The entire agreement and the following Schedules are incorporated into this Contract by reference
- Schedules 1 to 21 inclusive of the Framework schedules are relied upon within this contract.
- The following documents are incorporated into this contract by reference
[REDACTED] -EA-00-00-SO-K-G0300_2-A2-C02-G0300-EA2-LOD2-Wheatley Park Embankment OBC ESE Scope.pdf

Part One - Data provided by the *Client*

Statements given in all Contracts

1 General

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

Main
Option

Option C

Option for resolving and
avoiding disputes

W2

Secondary Options

X2: Changes in the law

X7: Delay damages

X9: Transfer of rights

X10: Information modelling

X11: Termination by the *Client*

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

To provide ESE support to the development of Wheatley Park Embankment OBC appraisal project.

The *Client* is

Environment Agency

Address for communications

Lateral
8 City Walk
Leeds
LS11 9AT

Address for electronic communications

[REDACTED]

The *Project Manager* is

[REDACTED]

Address for communications

Lateral
8 City Walk
Leeds
LS11 9AT

Address for electronic communications

[REDACTED]

The *Supervisor* is

to be advised by the *Client*

Address for communications

Address for electronic communications [tbc](#)

The Scope is in

EA-00-00-SO-K-G0300_2-A2-C02-G0300-EA2-LOD2-Wheatley Park Embankment OBC ESE Scope.pdf

The Site Information is in
nil

The boundaries of the site are

ARU-00-00-PL-K-A0100_1-A2-C01-A0100-EA2-LOD2-Site Boundary plan.pdf

The language of the contract is English

The law of the contract is

the law of England and Wales, subject to the jurisdiction of the courts of England and Wales

The period for reply is 2 weeks

The following matters will be included in the Early Warning Register

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

2 The Contractor's main responsibilities

The key dates and conditions to be met are
condition to be met

key date

'none set'

'none set'

'none set'

'none set'

'none set'

'none set'

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

4 weeks

3 Time

The starting date is

19 September 2022

The access dates are
part of the Site

date

the whole of the Site

19 September 2022

The Contractor submits revised programmes at
intervals no longer than

4 weeks

The Completion Date for the whole of the works is

30 October 2023

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

The defect correction period is	2 weeks	except that
• The defect correction period for		is
• 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	£25,841.00		
The interest rate is	2.00%	per annum (not less than 2) above the	
Base	rate of the	Bank of England	
The Contractor's share percentages and the share ranges are			
	share range		Contractor's share percentage
less than		80 %	0 %
from	80 %	to	as set out in Schedule 17
greater than		120 %	as set out in Schedule 17

6 Compensation events

The place where weather is to be recorded is	UK MET Office Weather station at Ryhill, South east of Wakefield (GR SE 40153 14824)
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- The weather measurements to be recorder for each calendar month are
- the cumulative rainfall (mm)
 - the number of days with rainfall more than 5mm
 - the number of days with minimum air temperature less than 0 degrees Celsius
 - the number of days with snow lying at Snow lying at 09:00 hours GMT

and these measurements:

1. the cumulative rainfall (mm)
2. the number of days with rainfall more than
3. the number of days with minimum air temp
4. the number of days with snow lying at 09:00
- 5.

The weather measurements are supplied by the UK Met Office
The weather data are the records of past weather measurement for each calendar month
which were recorded at Ryhill MET Office weather station
and which are available from The UK 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. 'not used'
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

£15,000,000

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

not less than the amount required by law

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

nil

Resolving and avoiding disputes

The *tribunal* is litigation in the courts

The *Senior Representatives* of the *Client* are

[REDACTED]

Address for communications

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Address for electronic communications

[REDACTED]

Name

[REDACTED]

Address for communications

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Address for electronic communications

[REDACTED]

The *Adjudicator* is

'to be confirmed'

Address for communications

'to be confirmed'

Address for electronic communications

['to be confirmed'](#)

The *Adjudicator nominating body* is

The Institution of Civil Engineers

Z Clauses

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

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

Z3 Prevention: No change to prices

Delete first sentence of clause 62.2 and replace with:

"Quotations for compensation events except for the compensation event described in 60.1(19) comprise proposed changes to the Prices and any delay to the Completion Date and Key Dates assessed by the *Contractor* . Quotations for the compensation event described in 60.1(19) comprise any delay to the Completion Date and Key Dates assessed by the *Contractor* .

Delete 'The' At start of clause 63.1 and replace with:

"For the compensation event described in 60.1(19) the Prices are not changed. For other compensation events the..."

Z 4 The Schedule of Cost Components

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

Z 6 Payment for Work

Delete existing clause 11.2 (31) and replace with:

"11.2 (31) The Price for Work Done to Date is the total Defined Cost which the *Project Manager* forecasts will have been paid by the *Contractor* before the next assessment date plus the Fee, not exceeding the forecast provided under clause 20.4 and accepted by the *Client* ."

Z7 Contractor's share

After c54.2 and before d54.3, 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 110% of the total of the Prices, the amount in excess of 110% of the total of the Prices is retained from the Contractor.

Z10 Payments to subcontractors, sub consultants and

Subcontractors

The *Contractor* will use the NEC4 contract on all subcontracts for works. Payment to subcontractors will be 28 days from the assessment date.

If the *Contractor* does not achieve payments within these time scales then the *Client* reserves the right to delay payments to the *Contractor* in respect of subcontracted work, services and supplies.

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) Act

The design consultant employed by the *Contractor* is required to fulfil the obligations of the warrantor under the primary contract for design works that they complete. This includes:

Transfer of rights clause Z11

Professional indemnity insurance cover to same cover as that specified for the *Contractor*

Z11.1 The *Client* ('the third party') may in its own right enforce the provisions of this clause, subject to and in accordance with the provisions of the Contracts (Right of Third Parties) Act 1999 and the following provisions:

Z11.1.1 the parties may not rescind or vary any provision(s) of this agreement, including this clause, at any time without the consent of the third party; and

Z11.1.2 each third party's rights against party A under this agreement shall be subject to the same conditions, limitations and exclusions as apply to party B's rights against party A under this agreement.

Z11.2 Except as provided in clause Z11.1, this 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 this clause does not affect any right or remedy of a 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.

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:

$$\text{Assessment} \times \text{MF} \times \text{L} = \text{PVP}$$

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.

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 £50.52 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 £5,000,000

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 6 years after the Completion of the whole of the *works*

██████████

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

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

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

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

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

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

term	<i>beneficiary</i>
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

Name

BAM Nuttall Ltd

Address for communications

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 and contractors offices whether temporary

The key persons are

Name (1)

Job

Responsibilities

Qualifications

Experience

The key persons are

Name (2)

Job

Responsibilities

Qualifications

Experience

The key persons are

Name (3)

Job

Responsibilities

Qualifications

Experience

The key persons are

Name (4)

Job

Responsibilities

Qualifications

Experience

The following matters will be included in the Early Warning Register

2 The Contractor's main responsibilities

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

3 Time

The programme identified in the Contract Data is

5 Payment

The *activity schedule* is

Resolving and avoiding disputes

The *Senior Representatives* of the *Contractor* are

Name (1) [redacted]
Address for communications
[redacted]
[redacted]
[redacted]y
[redacted]
[redacted]

Address for electronic communications
[redacted]

Name (2) [redacted]
Address for communications
[redacted]
[redacted]
[redacted]
[redacted]
[redacted]

Address for electronic communications
[redacted]

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

[REDACTED]

[REDACTED]

4/10/2022

Signature

Date

Role

[REDACTED]

Contractor execution

Signed Underhand by [PRINT NAME]

for and on behalf of

BAM Nuttall Ltd

[REDACTED]

[REDACTED]

[REDACTED]

Date

Role

[REDACTED]

Environment Agency NEC4 engineering and construction contract (ECC) Scope

Project / contract information

Project name	Wheatley Park Embankment
Project 1B1S reference	██████████
Contract reference	Project_37052
Date	August 2022
BIM reference	██████████-EA-00-00-SO-K-G0300_2-A2-C02-G0300-EA2-LOD2-Wheatley Park Embankment OBC ESE Scope
Version number	V2
Author	██████████

Revision history

Revision date	Summary of changes	Version number
July 2022	First issue	V1
11/08/2022	DgC Review	V1.1
17/08/2022	CSM Review	V1.2
19/08/2022	Final for issue	V2

customer service line
03708 506 506
www.environment-agency.gov.uk

incident hotline
0800 80 70 60

floodline
0845 988 1188

This Scope should be read in conjunction with the version of the Minimum Technical Requirements current at the Contract Date. In the event of conflict between this Scope shall prevail. The *works* are to be compliant with the Scope

Contents List

S 100	Description of the <i>works</i>
S 200	General constraints on how the <i>Contractor</i> provides the <i>works</i>
S 300	<i>Contractor's</i> design
S 400	Completion
S 500	Programme
S 600	Quality management
S 700	Tests and inspections
S 800	Management of the <i>works</i>
S 900	Working with the <i>Client</i> and Others
S 1000	Services and other things to be provided
S 1100	Health and safety
S 1200	Subcontracting
S 1300	Title
S 1400	Acceptance or procurement procedure (Options C and E)
S 1500	Accounts and records (Options C and E)
S 1600	Not used
S 1700	<i>Client's</i> work specifications and drawings

Appendix 1: BIM Protocol – Production and Delivery Table

Appendix 2: Current known stakeholders

Appendix 3: Glossary of terms

1. Description of the works

S 101 Description of the works

The asset consists of an embankment from Long Sandall to Mile Thorn Sidings on a narrow strip of land between the River Don and the River Don Navigation canal. Collectively known as the Wheatley Park Embankment the structure prevents flows from the River Don entering the canal and protects the north-eastern suburbs of Doncaster near the river. The structure is owned by the Environment Agency.

The current system of embankments has a condition grade of 3-5 (fair-very poor) and are predominantly below their required condition. For the arrangement and asset identification numbers please see figure 1 below. Substantial repair or replacement is required to maintain the current Standard of Protection (SoP) which is in excess of 200 years (0.5% AEP). An appraisal of options is to be undertaken to develop an Outline Business Case (OBC)

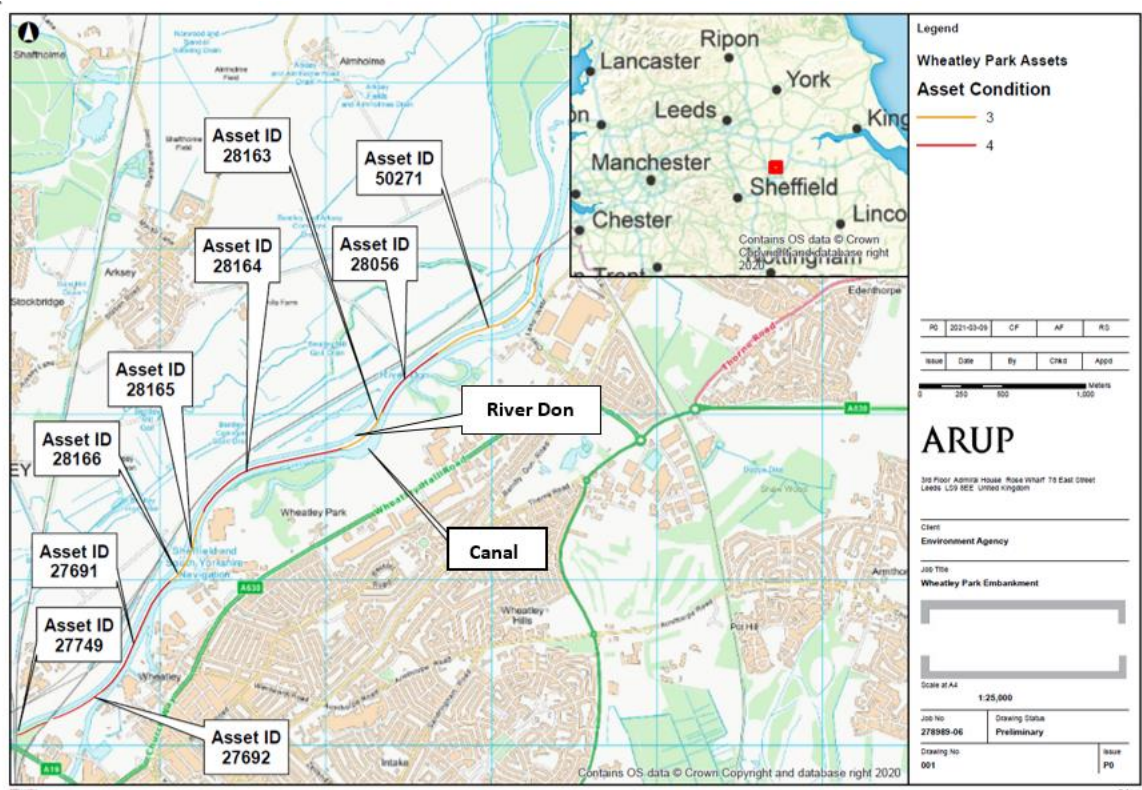


Figure 1: General Arrangement and Asset Identification numbers

S 102 Purpose of the works

The purpose of this contract is to build upon the information developed in the SOC stage and provide early supplier engagement to the appraisal study of the Wheatley Park Embankment in the production of an OBC for assurance review.

S 103 The works

The *Contractor* shall deliver an Early Supplier Engagement (ESE) *works* such that it meets the outcomes listed in this section.

1. The *Contractor* shall demonstrate sustainability leadership through fully considering and contributing to achieving the *Client's* environment and sustainability ambitions and targets. These are set out in the EA2025 Action Plan, e:Mission 2030 Strategy, the Defra 25 Year Environment Plan and are in line with the principles of sustainability as described by the United Nation's Sustainable Development Goals.
2. The required outcome of this commission is for the *Contractor* to provide advice and support to the *Client*, Lot 1 designer and *Others* to develop and contribute to an outline design from that produced at the previous stage such that it meets the project objectives and enables the scheme to be priced and constructed under an NEC4 Engineering and Construction Contract.
3. The *Contractor* shall provide advice and guidance on the cost, risks, Safety Health Environmental and Wellbeing (SHEW), programme, working areas required and buildability of any options and designs such that the *Client* can establish a budget based upon the estimated cost and programme durations used in the OBC.
4. The *Contractor* shall provide advice and guidance on the carbon cost, environmental impact, impact of potential permissions and consent applications, necessary mitigation and opportunities for environmental improvements for any options and designs such that the *Client* can rely on the appraisal of these in the OBC.

The *Contractor* shall provide advice and guidance that the following documents are comprehensive and provide the best information available at this stage, inputting as required, to include suitable assurance for each of the following documents:

- Site Investigation and Ground Investigation scope
- Hazard Plan
- desktop services searches
- Pre-Construction Information Pack
- Design Statement
- Environmental Action Plan
- Construction Method in the EIA
- Information Delivery Plan

- ERIC carbon reporting tool

The *Contractor* shall identify and communicate any efficiencies achievable in the optioneering and design process such that they can contribute to the *Client's* efficiency targets using the Combined Efficiency Reporting Tool (CERT).

In managing the *works*, the *Contractor* shall follow all the requirements as set out in the Collaborative Delivery Framework (CDF) schedules and the relevant content of the Minimum Technical Requirements (MTRs).

In managing the *works* the *Contractor* shall:

- Contribute monthly to the updates to the project risk register.
- Provide input to project efficiency CERT Form.
- Attend monthly progress and weekly update meetings.
- Produce monthly financial updates and forecasts and expenditure profile, for the contract, 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.
- Deliver a monthly progress report in the *Client's* standard template ([Link](#)) giving progress against programme, deliverables received and expected and financial and carbon summary against programme.
- Attend project board meetings as required.
- Ensure quarterly input into framework performance assessment / environmental Performance Measures.
- Capture lessons learnt relevant to scheme delivery for the EA Project Manager to include in the scheme lessons learnt log to be appended to the OBC.

The *Contractor* will attend a meeting with the project team including the Environment Agency (EA) Area representative to communicate current understanding of the causes and consequences of flood risk and also:

- Any local issues,
- External relations to contributors,
- Knowledge of stakeholders,
- Politics and influence local political issues,

- Reputational risks,
- Historic relationships,
- Identify any socio-environmental constraints and potential opportunities for environmental improvements.

The *Contractor* shall make a site visit with a Senior User representative and other key members of the project team to gain an understanding of site specific risks and constraints, environmental or communication risks and issues. The timings of visits will be agreed by the *Client* and *Contractor*. The *Client* will arrange visits when notified. The *Contractor* shall identify as a minimum:

- *working areas*
- Access requirements
- Physical constraints
- Easement requirements
- Required compound areas
- Other potential opportunities and constraints

The contract will be administered using FastDraft

S 104 Outputs and Deliverables

The *Contractor* will provide a statement on the buildability report provided by the Lot 1 Delivery Partner, construction methods, sustainability and carbon saving opportunities, temporary works, logistics, procurement, supply chain engagement, costs and SHEW compliance of the shortlist options and outline design.

The *Contractor* will produce an indicative (for OBC) construction programme showing optimum timing of the *works* in relation to any environmental dependencies, licensing and consenting requirements, programme efficiencies and procurement requirements (e.g. long lead time items).

The *Contractor* shall prepare and maintain a Queries Log of issues they have raised, the relevant project partner's responses and how the issues have been incorporated into the project going forward.

S 105 Option Development – Appraisal / Preferred Option Development – Detailed Design

As part of the *works* the *Contractor* is to:

- Work in collaboration with the *Client*, Lot 1 Delivery Partner, *Others* and the wider project team to assist in developing the most sustainable and best value outline design which meets the objectives of the project.

The *Contractor* shall submit marked up Lot 1 Delivery Partner's drawings with a commentary of the above.

The *Contractor* shall assist the CDF Lot 1 Delivery Partner in identifying:

- Relevant previous lessons,
- Health, safety and welfare issues,
- Project risks and opportunities including estimating risk realisation and mitigation measures,
- Opportunities to create enhancements, improve the local environment / amenity value and contribute to urban regeneration,
- Value engineering options,
- Carbon reduction opportunities,
- Efficiency opportunities for delivery of scheme, and
- Lessons learnt/experiences during the current project stage.

The *Contractor* shall support and advise the CDF Lot 1 Delivery Partner on the preparation of a hazard plan for the short list options and preferred option/ detailed design.

The *Contractor* shall collaborate with the CDF Lot 1 Delivery Partner (who will lead the process) to undertake the development and definition of the short list of options and preferred option/ detailed design.

The *Contractor* shall collaborate with the Senior User to ensure that the preferred option design accounts for ongoing management of assets and asset performance, during construction and that the construction methodology is understood.

The *Contractor* shall consider where applicable innovation and technology can be embedded throughout the project, in the design and construction methodology; evaluating on a risk and opportunity basis.

The *Contractor* shall advise on how accurate and up to date information on the whole-life cost and carbon is driving optimum solutions at all stages of design development.

S 106 Carbon

Carbon emissions shall be identified and assessed on a strategic whole life basis (cost and benefit) in the economic appraisal of options and also as a specific operational target (carbon budget) of the *Client*.

The baseline carbon budget for the project has been set to 2,282t (Capital), 4,406t (Whole life). The *Contractor* is required to support the *Client* and the Lot 1 Delivery Partner to reduce the project carbon footprint by 45%.

The *Contractor* shall provide assurance of and input into the use of the ERIC carbon calculator.

The *Contractor* shall provide advice and guidance on the whole life project carbon costs.

The *Contractor* shall provide support for an estimate of the carbon cost for the short list options and preferred option design.

S 107 Economic Appraisal

The *Contractor* shall provide advice and guidance on the extent of information available and required to be able to provide a cost of the options and outline design.

The *Contractor* shall provide market relevant advice to support on project whole life costs (and carbon), compensation exposure for third parties, input into the pricing strategy and setting adequate budgets.

The *Contractor* shall support in ensuring the preferred option costing is within set tolerances, at the earliest opportunity, including input into funding options where feasible.

The *Contractor* shall provide an estimate of cost and carbon for potential solution(s). This will be prepared based upon the information collated to date, the *works* provided and operational experience. The focus is on the scale and timing of possible costs to be used by the *Client* in the OBC. This should include solution socio environmental mitigation and enhancement costs and an allowance for risk. This estimate should identify the extent of validity of PCT and potential risks of variance to PCT.

Contribution to specialist areas of the high-level cost estimate against a defined scope as requested by the project team. Suitable risk pot established considering stage of project.

S 108 Business Case Submission

The *Contractor* shall review and provide comment on the business case prior to submission to ensure their inputs represent a complete understanding of the scope and risks within.

The *Contractor* shall review the draft business case to advise if the preferred option/ detailed design is accurately represented, in terms of definition, description, drawings, associated risks and opportunities.

2. General constraints on how the *Contractor* provides the *works*

S 201 General constraints

A section of the embankment on the right-hand bank located opposite to, and a short distance downstream of, the Bentley Ings Pumping Station outfall has slipped. This section of the embankment has been red carded by the *Client's* operations team. Red carding prevents field teams and contractors from accessing or crossing the embankment in this location. Should any investigation works be required this will create a constraint upon access to the site which will be managed from either end of the Site but not allow passage for its full length.

Access to the western end of the Site is controlled by Network Rail. This may create a constraint in terms of access – third party land, permissions, timing, requirements – if this route is used in relation to any investigation works.

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 *works* only with the *Client's* written permission.

S 203 Security and protection on the site

There are no security requirements in place on the embankment. The embankment is publicly accessible.

S 204 Security and identification of people

There are no security requirements in place on the embankment.

S 205 Protection of existing structures and services

Not used.

S 206 Protection of the *works*

Not used.

3. **Contractor's design**

Not used.

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*:

- Population of the *Client's* latest version of the Project Cost Tool, or its successor
- Transfer to the *Client* databases of BIM data

S 402 Correcting Defects

Not used

S 403 Pre-Completion arrangements

Not used

S 404 Take over

Not used

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).

The *Contractor* shall provide a detailed programme in Microsoft Project format version 2016 meeting all requirements of clause 31 of the *conditions of contract*.

The *Contractor* shall provide a baseline programme for the project start up meeting and shall update the programme monthly for progress meetings with actual and forecast progress against the baseline. The programme shall also include alignment and submission of the BIM Execution Plan (BEP) and Master Information Delivery Plan (MIDP).

The programme shall cover all the activities and deliverables in the project from the *Contractor* and Others and include all major project milestones from commencement to the end of the *works*.

The *Contractor* shall identify key programme constraints that could prevent a scheme from starting or completing as planned.

S 502 Programme arrangement

The programme shall be in pdf as well as in electronic copy in its native format. A clear critical path shall be shown. Activities to be undertaken by the *Client* shall be clearly identified on the programme. The programme is to be submitted to Fastdraft.

S 503 Methodology statement

In line with the *conditions of contract*

S 504 Work of the *Client* and Others

In line with the *conditions of contract*

S 505 Information required

In line with the *conditions of contract*

S 506 Revised programme

In addition to the requirements of the conditions of contract, the *Contractor* shall provide a brief explanation of changes to each programme activity, sufficient to enable the *Project Manager* and *Client* to understand the cause and impact of the change.

6. Quality management

S 601 Samples

Not used

S 602 Quality Statement

Not used

S 603 Quality management system

Not used

S 604 BIM requirements

The BIM Information Manager is the *Client* Project Manager

7. Tests and inspections

In line with the *conditions of contract*

8. Management of the works

S 801 Project team – Others

Not used

S 802 Communications

The *Client's* organisation has a regulatory function. Communications from the Environment Agency in its capacity as a regulator are not to be confused with communications as the *Client* or the *Project Manager*.

S 803 Stakeholder Engagement

The *Contractor* shall act in accordance with their responsibilities as identified in the project Stakeholder Engagement Plan.

A list of known stakeholders is provided in Appendix 2.

9. Working with the *Client* and Others

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

Not used

S 902 Co-operation

Not used

S 903 Co-ordination

Not used

S 904 Authorities and utilities providers

Not used

10. Services and other things to be provided

S 1001 Ground Investigation

- The *Contractor* is required work with the Lot 1 Delivery Partner and review findings from previous studies and appraisal to identify any gaps in existing data.
- The *Contractor* is required to work with the Lot 1 Delivery Partner to use the gaps identified above to inform scope of supplementary investigations needed to allow proper progression of appraisal and reduce risk of unforeseen ground conditions during construction.
- The Lot 1 Delivery Partner will communicate any ground investigation requirements to the *Project Manager* for acceptance.
- Any ground investigation works required to support the appraisal will be instructed by the *Project Manager* and a compensation event will be raised.

11. Health and safety

- Health, Safety and Wellbeing (HSW) is the number one priority of the *Client*. The *Contractor* shall promote and adopt safe working methods and shall strive to deliver solutions that provide optimum HSW to all.
- The *Contractor* shall follow and comply with the requirements outlined in the Safety, Health Environment and Wellbeing (SHEW) Code of Practice (LIT 16559).
- The *Contractor* shall cooperate with the Principal Designer and all other CDM duty holders on the project.
- The *Contractor* shall fulfil the Principal Contractor (PC) role and discharge the duties in accordance with the requirements of the Construction (Design and Management) Regulations 2015 and in particular regulations 12, 13, 14, 15 and part 4,
- The *Contractor* shall be expected to undertake the role of Principal Contractor for the duration of the project.

12. Subcontracting

Not used

13. Title

Not used

14. Acceptance or procurement procedure (Options C and E)

Not used

15. Accounts and records (Options C and E)

S 1501 Additional Records

Clause 52.2 (Options C and E) 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*.

16. Not used

17. Client's work specifications and drawings

S 1701 *Client's work specification*

The works are to be delivered in accordance with the *Client's* minimum technical requirements and appraisal guidance for the delivery of an OBC.

S 1702 Drawings

Not used

S 1703 Standards the *Contractor* will comply with

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

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.

Appendix 1 BIM Protocol – Information Production and Delivery Table

The *Contractor* shall adhere to the Environment Agency's Employers 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.

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

The project is named and displayed on Asite in the format shown below:

/Wheatley Park Embankment BIM2\1. E-CDE

The *Contractor* shall register for an Asite Account and request access to the project workspace to view the IDP.

Appendix 2: Current known stakeholders

- Residents and businesses in Wheatley Park and Kirk Sandall
- Doncaster Metropolitan Borough Council
- Sheffield City Regional Mayoral Combined Authority
- The Canals and Rivers Trust
- Network Rail
- Doncaster & District Angling Association

Appendix 3: Glossary of Terms

AEP	Annual Exceedance Probability
ASCII	American Standards Code for Information Interchange
BEP	BIM Execution Plan
BIM	Building Information Model
CEEQUAL	Civil Engineering Environmental Quality and Assessment Scheme
CERT	Combined Efficiency Reporting Tool
CDF	Collaborative Delivery Framework
CDM	Construction Design Management
CE	Compensation Event
CFMP	Catchment Flood Management Plan
CifA	Chartered Institute of Archaeologists
DAP	Drainage Area Plan
EA	Environment Agency
EAP	Environmental Action Plan
EIA	Environmental Impact Assessment
EIR	Employers Information Requirements
ESE	Early Supplier Engagement
ESRI	Environmental Systems Research Institute
EW	Early Warning
FAS	Flood Alleviation Scheme
FBC	Full Business Case
FCERM-AG	Flood and Coastal Erosion Risk Management – Appraisal Guidance
FRM	Flood Risk Management
FsoD	Financial Scheme of Delegation
G3	Gateway 3
G4	Gateway 4
GI	Ground Investigation
GIS	Geographical Information System
GPR	Ground Penetrating Radar
GVA	Gross Value Added
HRA	Habitat Regulations Assessment
HSE	Health & Safety Executive

IAR	Information Asset Register
ISIS	Integrated Systems and Information Services
IDP	Information Delivery Plan
IHBC	Institute of Historical Building Conservation
ILP	Indicative Landscape Plan
LED	Landscape and Environmental Design
LEDG	Landscape and Environmental Design Guidance
LiDAR	Light Detection and Ranging
LPRG	Large Project Review Group
LVIA	Landscape and Visual Impact Assessment
MEICA	Mechanical and Electrical, Instrumentation, Control and Automation
MIDP	Master Information Delivery Plan
MTR	Minimum Technical Requirements
NaFRA	National Flood Risk Assessment
NEAS	National Environmental Assessment and Sustainability
NFCDD	National Flood and Coastal Defence Database
NGR	National Grid Reference
NPAS	National Project Assurance Service
NYCC	North Yorkshire County Council
OBC	Outline Business Case
OMs	Outcome Measures
PAB	Project Assurance Board
PAR	Project Appraisal Report
PCCT	Project Cost and Carbon Tool
PCT	Project Cost Tool
PEIR	Preliminary Environmental Information Report
PESTLE	Political, Economic, Social, Technological, Legal and Environmental
PM	Project Manager
PSRA	Public Safety Risk Assessment
PSC	Professional Services Contract
PSO	Partnership & Strategic Overview
SHE	Safety, Health and Environment
SHEW	Safety, Health, Environmental and Wellbeing
SMP	Shoreline Management Plan

SOC	Strategic Outline Case
SoP	Standard of Protection
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
UXO	Unexploded Ordnance
WFD	Water Framework Directive
YW	Yorkshire Water