[redacted]

nec 4

Environment Agency

Framework: [redacted]
Supplier: [redacted]
Company Number: [redacted]

Geographical Area: [redacted]
Contract Name: [redacted]
Project Number: [redacted]

Contract Type: [redacted]
Option: [redacted]

Contract Number: [redacted]

Stage: [redacted]

[redacted]											
[redacted]			[redacted]			[redacted]			[redacted]		
[redacted]			[redacted]			[redacted]			[redacted]		
[redacted]			[redacted]			[redacted]			[redacted]		
[redacted]			[redacted]			[redacted]			[redacted]		

ENGINEERING AND CONSTRUCTION CONTRACT under the Collaborative Delivery Framework
CONTRACT DATA

Project Name Hull River Defences Construction (Phase 3)

Project Number [redacted]

This contract is made on 09 October 2023
between the *Client* and the *Contractor*

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

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

- The following documents are incorporated into this contract by reference
EA HRD (Ph3) - Contract Scope (2.7)

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

X5: Sectional Completion

X7: Delay damages

X9: Transfer of rights

X10: Information modelling

X11: Termination by the *Client*

X15: *Contractor's* design

X18 Limitation of Liability

X20: Key Performance Indicators

Y(UK)1: Project Bank Account

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

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

Z: *Additional conditions of contract*

The *works* are

To design and construct or repair flood defence assets on the River Hull up to a 0.5 standard of protection against fluvial flooding.

The *Client* is Environment Agency

Address for communications [redacted]

Address for electronic communications [redacted]

The *Project Manager* is [redacted]

Address for communications [redacted]

Address for electronic communications [redacted]

The *Supervisor* is *TBC*

Address for communications TBC

Address for electronic communications *TBC*

The Scope is in
EA HRD (Ph3) - Contract Scope Final 180823 - For Isssue

The Site Information is in
02 Site Information
[see 'Site Information List of Appendicies' for index of all appendicies]

The *boundaries of the site* are
Contained in the Site Information, Appendix 3

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 09 October 2023

The *access dates* are part of the Site	date
Asite	09 October 2023
Fastdraft	23 October 2023
201L32 - Sansfield Concrete mixing plant	09 October 2023
201L39/40 - Catfoss and Mytum & Selby	09 October 2023

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

The *Completion Date* for the whole of the *works* is 24 November 2024

The *Client* is willing to take over the *works* before the Completion Date

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

4 Quality management

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

The period between Completion of the whole of the *works* and the *defects date* is 104 weeks

The *defect correction period* is 2 weeks except that
- The *defect correction period* for safety issue for the public is 24 Hours
- 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 [redacted]

The *interest rate* is [redacted] 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	[redacted]		**0** %
from	[redacted]	to [redacted]	as set out in Schedule 17
greater than	[redacted]		as set out in Schedule 17

6 Compensation events

The place where weather is to be recorded is Leconfield Weather Station

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

and these measurements:

1. the number of days wind speed maximum gust > = 30 mph
2. average maximum gust
3.
4.
5.

The *weather measurements* are supplied by Weather Net, paid and supplied by the Contractor
The *weather data* are the records of past weather measurement for each calendar month
which were recorded at Leconfield Weather Station
and which are available from Weather Net

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

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

These are additional compensation events

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

2. The Contractor is required to rework an accepted design as a result of newly identified objection(s) by Others, who had previously been consulted.

3. The Contractor is required to change the proposed installation method as a result of newly identified objection(s) by Others to the proposed flood defence solution, who were previously consulted.

4. Others (Hull City Council) impact activities shown on the Accepted Programme due to their work on Sculcoates Bridge before the Completion Date.

5. The failure of any of the local moveable bridges (from the mouth of the River Hull to Ferrystone Bridge) before the Completion Date which impact activities shown on the Accepted Programme due to
•maintenance
•failure or damage.
The Contractor is expected to seek suitable mitigation measures which are available and appropriate.

6. The works planned by Others (National Highways) on Myton Bridge before the Completion Date which impact activities shown on the Accepted Programme as a result of increased navigation restrictions. The Contractor is expected to seek suitable mitigation measures which are available and appropriate.

7. An event which occurs before the Completion Date which impacts activities shown on the Accepted Programme due to other river traffic. The Contractor is expected to seek suitable mitigation measures which are available and appropriate.

8. The works planned by Others (National Highways) on Myton Bridge before the Completion Date which impact activities shown on the Accepted Programme as a result of additional restrictions on abnormal loads crossing. The Contractor is expected to seek suitable mitigation measures which are available and appropriate.

8 Liabilities and insurance

These are additional *Client's* liabilities

1 'not used'

2 'not used'

3 'not used'

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

[redacted]

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

not less than the amount required by law

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

Resolving and avoiding disputes

The *tribunal* is litigation in the courts

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

Address for communications [redacted]

Address for electronic communications [redacted]

Name [redacted]

Address for communications [redacted]

Address for electronic communications [redacted]

The *Adjudicator* is 'to be confirmed'

Address for communications 'to be confirmed'

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

Z Clauses

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

Z 2B: Water levels: *Contractor's* risk
Clause 60.1 (12) second bullet point is amended to: "are not weather conditions or floods and"

Z3 Prevention: No change to prices
Delete first sentence of clause 62.2 and replace with:
"Quotations for compensation events except for the compensation event described in 60.1(19) comprise proposed changes to the Prices and any delay to the Completion Date and Key Dates assessed by the *Contractor*. Quotations for the compensation event described in 60.1(19) comprise any delay to the Completion Date and Key Dates assessed by the *Contractor*.
Delete 'The' At start of clause 63.1 and replace with:
"For the compensation event described in 60.1(19) the Prices are not changed. For other compensation events the..."

Z 4 The Schedule of Cost Components

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

Z 6 Payment for Work
Delete existing clause 11.2 (31) and replace with:
"11.2 (31) The Price for Work Done to Date is the total Defined Cost which the *Project Manager* forecasts will have been paid by the *Contractor* before the next assessment date plus the Fee. In all instances and circumstances the Price for Work Done to Date shall not exceed the forecast for the same as provided under clause 20.4."

Z7 *Contractor's* share
After cl54.2 and before cl54.3, insert the following additional clause:
54.2A If, prior to Completion of the whole of the works, the Price for Work Done to Date exceeds 111% of the total of the Prices, the amount in excess of 111% of the total of the Prices is retained from the Contractor.

Z10 Payments to subcontractors, sub consultants and
Subcontractors
The *Contractor* will use the NEC4 contract on all subcontracts for works unless another alternative and appropriate form is proposed and agreed in accordance with clause 26.3.
Payment to subcontractors will be 28 days from the assessment date.
If the *Contractor* does not achieve payments within these timescales then the Client reserves the right to delay payments to the Contractor in respect of subcontracted work, services or goods.
Failure to pay subcontractors and suppliers within contracted times scales will also adversely affect the *Contractor's* opportunities to work on framework contracts.

Z11Y(UK) 3 The Contracts (Rights of Third Parties) Act
Z11.1 The *Contractor* warrants all design complies with the contract whether undertaken by the *Contractor* or by sub-contractors.
Z11.2 All contracts for design employed by the *Contractor* must include:
- Y(UK)3 The Contracts Rights of Third Parties) Act 1999
- A requirement for the *Contractor's* sub-contractor to hold Professional indemnity insurance to the same level as the cover specified for the *Contractor* in this Call-off contract
- A clause to give the *Client* (the Environment Agency) the right to enforce the provisions of the Contracts (Right of Third Parties) Act 1999,
- A clause to ensure that neither the *Contractor* nor their sub-contractor can alter the provisions of their sub-contract without the consent of the *Client*
- A clause to ensure that the *Client's* rights against the sub-contractor under this agreement shall be subject to the same conditions, limitations and exclusions as apply to the *Contractor's* rights against the design consultant under this agreement
- A clause to state that except as provided in clause Z11.1, the agreement does not create any right enforceable by any person who is not a party to it (Other Party) under the Contracts (Rights of Third Parties) Act 1999, but the clause does not affect any right or remedy of any other party which exists or is available apart from that Act.

Z16 Disallowed Costs
Add the following bullets to clause 11.2 (26) Disallowed costs
- was incurred due to a breach of safety requirements, or due to additional work to comply with safety requirements.
- was incurred as a result of the client issuing a Yellow or Red Card to prepare a Performance Improvement Plan.
- was incurred as a result of rectifying a non-compliance with the Framework Agreement and/or any call off contracts following an audit.

Z19 Linked contracts
Delays and additional cost on this contract resulting from the *Contractor's* fault or error on a previous contract on this project or programme will be a Disallowable cost under this contract and not be a Compensation event under this contract.

Z20 Defect Dates for Sections
Where a section of the *works* is defined and is located in a separate area of the Site, the time to the *defects date* for that section is the defined period after the Completion of that *section*, and is defined in the Contract Data.

Z21 Requirement for Invoice
Add the following sentence to the end of clause 51.1:
The Party to which payment is due submits an invoice to the other Party for the amount to be paid within one week of the *Project Manager's* certificate.
Delete existing clause 51.2:
51.2 Each certified payment is made by the later of
- one week after the paying Party receives an invoice from the other Party and
- three weeks after the assessment date, or, if a different period is stated in the Contract Data, within the period stated.

If a certified payment is late, or if a payment is late because the *Project Manager* has not issued a certificate which should be issued, interest is paid on the late payment. Interest is assessed from the date by which the late payment should have been made until the date when the late payment is made, and is included in the first assessment after the late payment is made

Z22 Resolving Disputes
Delete W2.1

Z23 Risks and insurance
Replace clause 84.1 with the following
Insurance certificates are to be submitted to the Client on an annual basis.

Z30 Material Price Volatility
The *Client* recognises the ongoing pricing uncertainty in relation to materials for the period from 1 July 2021 to 30 June 2023 the *Client* will mitigate this additional cost through this clause. Payment is made per assessment based upon a general average material proportion within assessments, calculated at 40%.

Z30.1 Defined terms

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

Z30.2 Price Volatility Provision

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

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

Z30.3 Price Increase

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

Z30.4 Compensation Events

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

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

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

Z31 ECC – Price Adjustment for Inflation
The *Client* recognises the ongoing pricing uncertainty with regards to inflation. The *Client* will mitigate this uncertainty through this clause.

Z31.1 Defined terms:

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

Z31.2 Application rules.

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

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

Z31.3 Price Adjustment Factor.

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

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

Z31.5 Price adjustment Options C and D.

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

Z31.6 Compensation events.
NOT USED

Z111 ECC - Fee adjustment for non compliance with Scope
Delete existing 11.2 (10) and replace with the following clause

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

Z120 ECC – Carbon reduction

Ref. (Clause No.)	Clause words
11.2 Definitions	Add as Clause 11 2(36) (36) The Performance Table states the targets the *Contractor* is to achieve in Providing the Works and sets out the adjustment to payment if a measured performance is higher, the same or lower than its target. The Performance Table is the *performance table* unless later changed in accordance with the contract.
15.1 Early Warnings	In Clause 15.1 add as a new bullet between the second and third bullet: "• result in a target in the Performance Table not being met,"
Performance Measurements	
57	Add as Clause 57:
57.1	'From the *starting date* until the Completion Date, the *Contractor* reports to the *Project Manager* its performance against the targets in the Performance Table. Reports are provided at the intervals stated in the Performance Table.
57.2	If the *Contractor's* performance against a target in the Performance Table is not achieving or is forecast not to achieve the performance target stated, it submits to the *Project Manager* for acceptance its proposals for improving performance. A reason for not accepting the proposals is that they will not provide the improvement in performance needed to achieve the target in the Performance Table.
57.3	At the dates stated in the Performance Table, • if the relevant performance does not meet the target stated in the Performance Table, the *Contractor* pays the amount stated in the Performance Table, • if the relevant performance exceeds or meets the target stated in the Performance Table, the *Contractor* is paid the amount stated in the Performance Table.
57.4	Information in the Performance Table is not Scope.
X18	X18.5 add as a new bullet after the fourth bullet: • low performance damages if the Performance Table applies

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

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

Secondary Options

OPTION X2: Changes in the law

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

OPTION X5: Sectional Completion

The *completion date* for each *section* of the *works* is

section	description	*completion date*
1	201L32 - Sansfield Concrete mixing plant	22 November 2024
2	201L39/40 - Catfoss and Mytum & Selby	22 November 2024

X7 plus X5

Delay damages for each *section* of the *works* are

section	description	amount per day
1	201L32 - Sansfield Concrete mixing plant	[redacted]

The delay damages for the remainder of the *works* are [redacted]

OPTION X10: Information modelling

The period after the Contract Date within wh ch the *Contractor* is to subm t a first Informat on Execution Plan for acceptance is 2 weeks

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

[redacted]

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

12 years

OPTION X15: The *Contractor's* design

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

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

[redacted]

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

12 years

OPTION X18: Limitation of liability

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

[redacted]

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

[redacted]

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

[redacted]

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

[redacted]

The *end of liability date is* 12 years after the Completion of the whole of the *works*

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

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

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

Y(UK)1:Project Bank Account

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

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

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

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

term	*beneficiary*
Any	None

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

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 communicat ons: [redacted]

Address for electronic communications: [redacted]

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

The *working areas* are: The S te, Contractors premises used in connection with the works and additional areas contained in the S te Information, Appendix 3
- HRD-BMM-2L-32-DR-C-2730 P02
- HRD-BMM-2L-40-DR-C-2710 P02

The *key persons* are

Name (1) [redacted]
Job
Responsibilities
Qualifications
Experience

The *key persons* are

Name (2) [redacted]
Job
Responsibilities
Qualifications
Experience

The *key persons* are

Name (3) [redacted]
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]
Address for electronic communications
[redacted]

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

X10: Information Modelling

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

Y(UK)1: Project Bank Account

The *project bank* is
HSBC

named suppliers are

Contract Execution

Client **execution**

Signed as a Deed by [**PRINT NAME**] for and on behalf of the Environment Agency

[redacted]

In the presence of:

[redacted]

[redacted]

Contractor **execution**

Signed as a Deed by [**PRINT NAME**] for and on behalf of BAM Nuttall Ltd

[redacted]

[redacted]

[redacted]

[redacted]

Environment Agency
NEC4 engineering and construction contract (ECC)
Scope

Project / contract information

Project name	Hull River Defences (Phase 3)
Project 1B1S reference	TBC
Contract reference	TBC
Date	31/08/23
Version number	For Issue 2.7
Author	[redacted]

Revision history

Revision date	Summary of changes	Version number
28/10/22	First draft for comment	1.0
15/12/22	Updated draft for comment	1.3
02/02/23	Revised draft incorporating responses to Bam's comments on V1.0 (06/01/23)	1.4
14/03/23	Incorporates Bam's comments from 08/03/22	1.5
18/04/23	Clauses renumbered/reordered to match EA Scope Template Incorporates comments from CSM review of V1.4 Incorporates comments from DgC review of V1.4 Incorporates Bam's comments from 08/03/22 (V1.5)	1.6
19/04/23	Minor Changes – Appendix Referencing and Italic on defined terms, update intervention list	1.7
20/04/2023	Fencing extension requirement added into Contractors Design	1.8
20/04/2023	Minor changes to wording	1.9
20/04/2023	Minor changes to wording	2.0
21/04/2023	Minor changes to wording	2.1
21/04/2023	Draft approved for Issue	2.2
05/05/2023	Minor changes to wording	2.3
19/05/2023	Minor changes to wording and inclusion of CDF refresh carbon requirements	2.4
20/07/23	Removal of AfP carbon back up sheet wording	2.5
30/08/23	Incorporates Bam's comments from 30/08/23	2.6
31/08/23	Amending wording following Martin Newman's review of wording	2.7

This Scope should be read in conjunction with the version of the *Client's* "Minimum Technical Requirements" current at the Contract Date. In the event of conflict, this Scope shall prevail. The *works* are to be compliant with the following version of the Minimum Technical Requirements:

Document	Document Title	Version No	Issue date
LIT 13528	Minimum Technical Requirements	v12	December 2021
LIT 17641	Exchange Information Requirements	v3	December 2022

Contents List

S100 Description of the *works*

S101 Description of the *works*

The River Hull runs through the middle of the city of Kingston-upon-Hull. The city is currently protected from flooding by the river by defences that currently provide a 1 in 200 year (0.5%) standard of protection. The defences through the city are comprised of both hard and soft defences. As the river approaches the city centre the defences become predominantly hard defences.

The soft defences are typically earth flood embankments maintained by the Environment Agency and are generally in good condition. The hard defences comprise of a variety of brick, concrete, timber and piled wharfs, buildings and other structures, and have been built up over a long period of time in an unplanned and uncoordinated way.

The hard defences are of variable quality, and subject to varying standards of maintenance. Nearly all of the hard defences through the lower catchment are owned by third parties and many have suffered from neglect over the years. In the event of defences failing, or being breached, approximately 45,000 properties in Hull are at risk of flooding.

The objective of the River Hull Defences project is to improve the condition of the river defences through the city of Hull so that they continue to provide a standard of protection of 0.5% against fluvial flooding. The first two phases of work addressed circa 60 No assets at various locations with the highest levels of risk. The project includes the phase 3 *works* and will involve work at 3 No assets along the river, many having restricted access and working areas.

A list of flood defences/assets where work is required is provided in section S102.

S102 Purpose of the *works* Outcome required

The contract comprises the detailed design and construction of the *works* to provide a standard of protection of 0.5% against fluvial flooding (including the impact of climate change). The *Client* has provided an outline design for the *works* and Flood Defence Levels which provide a minimum standard of protection (SoP) of 0.5% against fluvial flooding. The *Contractor* is to design and construct the *works* to the Flood Defence Levels stated in Appendix 3.

The *Contractor* is to design and construct the *works* taking into account the information and specifications listed in this document and the design drawings provided in the Site Information and in accordance with the *Client's* objective.

The drawings describing the *works* are included in Appendix 1 of the Site Information.

The asset locations and approximate coordinates of their end points are included in the drawings. The *Contractor* will establish the precise start and finish point for each asset and confirm the positions with the *Supervisor* before commencement of any construction works.

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

The following list is intended as a guide to the principal elements of the *works* under this contract. It is not exhaustive and reference should be made to relevant information provided.

The elements to be addressed by the *works* for each asset/location are identified on the relevant outline design drawings for each asset/location. The *Contractor* is to develop the design(s) in consultation with the *Client* and Others and construct the *works* by undertaking the following:

- Review, assess and verify information provided by the *Client*.
- Procure, undertake detailed design for construction (including all temporary works design), construct, install, complete and commission the *works* for each location in accordance with the contract.
- Provide all Environmental reporting and deliverables in line with the Minimum Technical Requirements (MTR) for environmental works Version 12 December 2021.
- Obtain all consents, approvals, and licenses, including marine license(s) as necessary to deliver the *works*.
- The *Contractor* will consult, liaise, and secure the approval of all statutory undertakers and issue of all notices and make payment of all charges necessary to comply with the statutory obligations.
- Include the *works* to deliver the Water Framework Directive (WFD) elements of the non-statutory Environmental Report.
- Provide accommodation, services and facilities including the payment of all utility invoices for the *Project Manager* and *Supervisor* and their respective staff for the duration of the Site works
- Provide the *Project Manager* with a copy of all third party agreements that have relevance to the *Contractor*'s obligations to provide the *works*.
- Allow access to the Site, all design offices, head offices, sites, workshops, manufacturing premises, etc. for the *Project Manager*, *Supervisor* and *Client* that are connected with the *works*.
- Provide Site Waste Management Plan, carbon calculator (updated at key project milestones) – the Whole Life (Construction) Carbon Planning Tool (LIT 14284) and Environmental KPI information.
- Prepare all necessary notices, drawings, and calculations in a timely manner.
- Liaise with landowners, tenants, occupiers and third parties during the design and construction of the *works* to discuss methodology, programme, and access to the Site.
- Develop, ensuring compliance, and update monthly, or more often as the *works* require, the Environmental Constraints Plan and Environmental Action Plan in conjunction with Others identified by the *Client*.
- Undertake the role of Principal Contractor under the CDM regulations.
- Co-ordinate and co-operate with the *Project Manager*, *Supervisor* and Principal Designer in respect of CDM requirements.
- The CDM Pre-construction information is in Site Information - which is provided by the *Client* for information only; it does not form part of the Scope. Any queries in respect of the CDM Pre-construction information should be directed to the Principal Designer, copied to the *Project Manager*.
- Include the *Project Manager* in the distribution for all correspondence with the Principal Designer.
- Attend progress meetings and health and safety meetings.
- Carry out and complete all necessary tests and test procedures if necessary.
- Attendance during the conduct of any necessary performance tests if necessary.
- Promptly provide test results if necessary.
- Arrange with the *Project Manager* for the development and issue of Notices of Entry to gain access onto private land.
- Co-ordinate and co-operate with the *Project Manager*, *Supervisor* and Principal Designer and provide information to complete the H&S File, As Built drawings and final cost and carbon data.
- Provide design data to the *Project Manager* for any necessary consultations and for acceptance.
- Where underground utility apparatus is likely to be affected, or where excavation may be required, procure survey(s) as required.
- Include all required topographic survey and/or ground investigation, including contaminated land. Any ground investigation or topographic survey is to be specified,

procured, and managed by the *Contractor*. Consult with the Local Authority/Highway Authority for any particular constraints on how the *works* are to be provided.

- Undertake all necessary investigation and protection of the surrounding buildings and structures during construction.
- Carry out all necessary reinstatements as a result of the *works* on a like for like basis and to the satisfaction of landowners and / or local authorities.

Upon completion of construction, update the Public Safety Risk Assessment through an appropriately qualified person.

The purpose of the *works* and outcomes required are:

- To provide the most cost-effective solution for improving the condition of the river defences through the city of Hull so that they continue provide a standard of protection of 0.5% (including climate change) against fluvial flooding.
- To reduce the risk of flooding from the River Hull to approximately 45,000 properties in Hull.
- To reduce the flood risk to the City of Hull to an acceptable level in a socially, environmentally, and economically sustainable manner.
- To comply with the requirements of the Water Framework Directive (WFD), and where possible seek to make improvements and to fulfil WFD objectives for the River Hull, which is a heavily modified waterbody.

Phase 3 includes 3 No assets identified as being at the greatest risk of failure within the next 5 years.

- 201L32
- 201L39-40 (2No assets)

The *Contractor* shall take all reasonable steps to ensure that the options considered, and the solution proposed are compliant with good practice, design standards and relevant legislation, and seek to minimise long-term asset/land management and maintenance costs.

The *Contractor* shall take all reasonable steps to ensure the design is compliant with all aspects of the Scope and capable of acceptance by means of the *Client*'s Gateway 3 approval process, gaining planning approval and any other approvals necessary and be acceptable to statutory stakeholders.

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

S201 General constraints

In providing the *works* the *Contractor* shall take account of the following constraints:

- The *Contractor* shall carry out the *works* in accordance with the *Client*'s (Environment Agency) Minimum Technical Requirements for NEC contracts, Version 12, dated December 2021 and this Scope.
- The *Contractor* shall carry out the landscape and environmental design works in accordance with the *Client*'s requirements, as stated in the Minimum Technical Requirements for Landscape and Environmental Design (Version 2, dated February 2021).
- The *Contractor* shall comply with the requirements of all necessary statutory consents, (including, but not limited to; Land Drainage Consent, Site Waste Management Plan, Planning Permission and Footpath Closures, Crown Estates Consent, Traffic Management, Marine license).
- The *Contractor* shall not undertake any temporary works or use of Equipment in the river which adversely effects the flow of the river and increases flood risk to the surrounding area.
- The *Contractor*'s attention is drawn to the Pre-Construction (Health and Safety) Information which is provided by the *Client* for information only; it does not form part of the contract.
- Where the Minimum Technical Requirements refers to the "Contract Administrator" or "Engineer", this is interpreted as meaning the "*Project Manager*" and/or the "*Supervisor*" as the context demands. If the *Contractor* is in any doubt as to whether a matter should be raised with *Project Manager* or *Supervisor*, he shall ask the *Project Manager* to decide the issue.
- References in the Minimum Technical Requirements to "submission for approval" or to "approval" shall be read as "submission for acceptance" or "acceptance" respectively.
- References in the Minimum Technical Requirements to equipment should be read as references to Plant or Equipment, as the context requires.
- If the *Contractor* is in any doubt as to an interpretation, the matter should be raised with the *Project Manager* who shall decide the issue.
- Any references in the Minimum Technical Requirements to the Particular Specification shall be read as references to the Scope.
- Any references in the Minimum Technical Requirements to the Client or Purchaser shall be read as references to the *Client*.
- Any references in the Minimum Technical Requirements to the Site shall be read as references to the Working Areas.
- British Standards and other documents referred to in the Minimum Technical Requirements are deemed to be those current 28 days prior to the Contract Date.
- The *Contractor* is to allow for dealing with any requirements of Hull City Council.
- The *Contractor* is to allow for liaison, cooperation with, and dealing with any requirements of the Harbour Master for the River Hull
- The *Contractor* is to allow for liaison and cooperation with Others in connection with providing the *works.*
- Existing moorings, protection and loading points are to be retained following Completion of the *works*. The *Contractor* will consult with the landowners/ occupiers during the detailed design and construction phases to ascertain the commercial activities taking place on the Site.
- The *Contractor* is to make all arrangements and pay costs associated with bridge and barrier openings to suit their method of working.

The Site and Working Areas

Site boundaries are shown in Appendix 3 of Site Information. The Working Area includes the Site and also includes:

- The *Contractor's* compound and offices at 26 Lime Street, Hull
- The *Contractor's* satellite compound and boat launching area at Rix, Bankside, Hull
- The *Client's* storage area at Alexandra Docks
- The Designer's offices

Parts of the Site and Working Areas are private land. The *Client* is required to issue statutory Notices of Entry for all private land within the Site at least 7 days before the access dates. The Contractor is to provide all necessary information to the *Client* and request the *Client* to submit statutory Notices of Entry not less than 7 days prior to the required date of issue of the Notices (ie not less than 14 days before the access date).

Additional Working Areas required by the *Contractor* outside of the Site are provided by the *Contractor*.

The *Contractor* notifies the *Project Manager* of any additional Working Areas that they have negotiated outside of the boundaries of the Site.

The *Contractor* confines their construction operations to the Working Areas.

The *Contractor* shares the Site as locally agreed between the Parties.

Site boundaries and Working Areas are shown in Appendix 3 of Site Information

The Contractor will be liable for loss or damage to tubular and steel sheet piles currently stored at the Global Shipping site, Hull howsoever caused during the movement and transportation to the Working Area.

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

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

Access to the Site
Site access is to be agreed with the *Project Manager* prior to the commencement of the *works*.

No other access is used without the *Project Manager*'s written agreement.

The *Contractor* takes care to avoid disturbance and damage to existing features and assets, including roads, footpaths, promenades, habitats, private property, street furniture, services, signage, embankments, flood defences and outfalls.

The *Contractor* should note that various third parties have the right to pursue commercial and leisure activities on the River Hull adjacent to the *works*.

The *Contractor* is responsible for clearly warning river users that they may be entering areas of risk when approaching the Working Area.

Entry to the Site
The *Contractor* notifies the *Project Manager* at least three weeks in advance of their intention to first enter or occupy each area of ownership or occupation.

The *Client* issues statutory Notices of Entry for all private land within the Site at least 7 days before the possession dates notified by the *Contractor*.

The *Project Manager* and the *Contractor* together alert each occupier of the *Contractor*'s expected first entry onto or use of their land, the expected duration of occupation and planned method of working and the *Project Manager* then authorises the *Contractor* to enter or use that area.

The *Contractor* keeps records of the dates of their first entry onto and departure from all property and lands of each owner and occupier (including public highways, footpaths, and thoroughfares) together with the dates of the erection and removal of all temporary fencing.

The *Contractor* does not enter any part of the Site until the date for possession of that part of the Site shown on the Accepted Programme. The *Contractor* may enter any part of the Site earlier than the date for possession shown on the Accepted Programme if given authority to do so by the *Project Manager*, provided that formal Notice of Entry has been served.

Consents and approvals – Third Parties
The *Contractor* obtains third party (which includes the Environment Agency) consents unless otherwise stated in the Scope.

Where sheet piles are installed in front of the existing river defences and narrowing of the river channel is likely to occur, consent from the Crown Estates, as owners of the riverbed, will be required. Crown Estates consents will be obtained by the *Client*.

Consents and approvals - Temporary works
Planning consent for site signboards, offices, cabins, other temporary accommodation, or temporary works required by the *Contractor*, or required for the *Project Manager* and *Supervisor* is, if necessary, obtained by the *Contractor*.

The *Contractor* obtains consents for temporary works from the Environment Agency. Enquiries & applications are to be addressed to:

Development & Flood Risk,
Environment Agency,
8 City Walk,
Lateral,
Leeds, LS11 9AT

or as otherwise advised by the *Project Manager*

Noise control and working hours
As a minimum, the Contractor will comply with the requirements of section 1.26 of the Client's Minimum Technical Requirements. In addition, the *Contractor* shall liaise with the relevant Local Authority for each location and comply with their requirements for noise control and any particular restrictions on working hours.

The *Contractor* is responsible for establishing contact with the relevant officers within each Local Authority.

The *Contractor* takes all reasonable measures to minimise the generation of noise and vibration resulting from their activities, including:

- employing 'best practicable means' as defined in the Control of Pollution Act 1994 to minimise the noise and vibration resulting from his operations.

- complies with the recommendations and requirements of BS 5228 Code of Practice for Noise Control on Construction and Demolition Sites and any conditions placed upon the application for consent under Section 61 of Part III of the Control of Pollution Act 1974.
- all Equipment is fitted with effective exhaust silencers, maintained in good repair and in accordance with the manufacturer's instructions and operated as to minimise noise emissions.
- only 'sound reduced' compressors or other alternatives approved by the *Supervisor* are used and any parts fitted by the manufacturer for the purpose of noise reduction is maintained and operated so as to minimise noise.
- any pneumatic operated percussive tools are fitted with approved mufflers or silencers which are kept in good repair.
- any machinery which is intermittent in use is shut down in intervening periods of non-use or where this is impractical is throttled back to a minimum.
- stationary equipment (e.g. pumps, compressors, generators, etc.) are situated as far as possible from residential property and acoustic screens are erected if required by the *Supervisor*. Other equipment is screened if necessary.
- Equipment known to emit noise strongly in one direction is, where practical, orientated so that noise is directed away from noise sensitive areas; and
- as far as possible, construction operations are not so noisy as to be a danger to those on or about the *works* or to be a nuisance to the neighbourhood

Signboards
The size, layout and content of signboards are to be agreed with the *Project Manager* and will be in-line with the 'All other Sites' standard of the Environment Agency Programme and Contract Management Site Branding Guide 'Using our Corporate Identity – Signage'.

Signs are to be erected at Lime Street compound, satellite/storage compounds and all work sites whilst work is in progress.

The *Contractor* agrees the location of sign boards with the *Project Manager* and gains any necessary permissions, approvals, and consents for their establishment.

The *Contractor* does not erect any other signboards without the written consent of the *Project Manager*.

Environmental aspects – Best practice
The *Contractor* will Provide the Works in accordance with environmental best practice.

The *Contractor*'s attention is drawn to the following documents:

- BRE – Green Guide to Specification.
- BRE - Materials Information Exchange
- CIRIA, SP122 – Waste Minimisation and Recycling in Construction
- CIRIA, C513 – The Reclaimed and Recycled construction Materials Handbook.
- CIRIA, C533 – Environmental Management in Construction.
- Considerate Constructor Scheme.

The *Contractor*'s attention is also drawn to the following Environment Agency Guidance Documents. The *Contractor* obtains the latest version of each of these documents from the *Client* prior to commencing the *works*.

- PPG1: General Guide to the Prevention of Water Pollution,
- PPG2: Above Ground Oil Storage Tanks,

- PPG5: Works in, near or liable to affect Watercourses,
- PPG6: Working at Construction and Demolition Sites,
- PPG21: Pollution Incident Response Planning,
- PPG 23: Maintenance of Structures Over Water.

Miscellaneous environmental requirements
The Contractor complies with the following environmental requirements:

- The *Contractor* reports any environmental incidents immediately to the relevant representatives of the Environment Agency and to the *Project Manager* and *Supervisor*. Reports are also to be submitted via the Environment Agency's AIRSWeb portal
- The Environment Agency Incident Hotline is 0800 807060
- Any excavated material is to be stockpiled and inspected by the *Supervisor* for its suitability for re-use.
- Materials that are manufactured locally or regionally will be favoured.
- Where feasible, Materials used will be reusable or recyclable at end of life.
- Where feasible, source horticulture plant stock from local provenance.

The *Contractor* shall ensure that:

- All cutting back of bankside vegetation, over and above that shown on the drawings, is to be agreed in advance with the *Supervisor*.
- Equipment is maintained to ensure efficiency and to minimise emissions.
- Concrete shuttering is designed to avoid escape of cementitious material, especially where it would contaminate water.
- Timber used for temporary works is from a temperate sustainable resource where reasonably practicable.
- Working Areas that are within, or a part of the Site, are defined with a demarcation fence of a type and height approved by the *Client*, to avoid damage to adjacent land and vegetation.
- Trees and other vegetation are properly protected.
- Equipment is effectively silenced and complies with any stated requirements of the Local Authority.
- Timber preservative treatment is carried out away from watercourses and in a manner to avoid any spillage or loss.
- Protection measures are taken for working adjacent to or inside existing structures.
- When working in and adjacent to the river, damage to the banks and riverbed is minimised.

Tree and shrub pruning is undertaken between 1 October and 31 March.

The *Contractor* notifies the *Project Manager* of any shrubs or trees to be pruned outside this period to allow the *Project Manager* to arrange for a survey by an experienced ecologist.

If active birds' nests are present within the Site during the *works*, the nestlings must be allowed to leave the nest before the clearance can take place.

If active birds' nests are present within the Site during the *works* the nestlings must be allowed to leave the nest before *works* within the immediate area can proceed. If an active nest is discovered within the Site, the Supervisor must be notified immediately.

If bats are discovered at the Site during the *works* the Supervisor must be notified immediately and *works* in this area must cease until instructed to continue by the Project Manager.

Environmental Reporting
A non-statutory Environmental Report (refer to Appendix 5) has been prepared on the *Client's* behalf which details proposals to protect and enhance the environment. The report identifies a Biodiversity Net Gain (BNG) target of 20% increase over the baseline included in the report. The *Contractor* is to identify and propose a range of environmental measures that could be incorporated into/at the proposed worksites to deliver the target BNG. If the *Contractor* demonstrates that the target BNG cannot be delivered by local, site based, measures alone, they should establish the level of BNG that can be delivered by local, site based, measures and also the balance remaining to be delivered by alternative means such as off-site mitigation. The *Client* will select from the *Contractor's* report which environmental enhancements are to be adopted. Provision of the selected environmental enhancements is not part of this Scope but may subsequently be incorporated by means of instruction by the *Project Manager* and compensation event.

The Environmental Report references the following documents which are also included in Appendix 5:

- Environmental Technical Note (HRD-BMM-00-XX-RP-E-0010)
- Environmental Action Plan (IMNE000209 rev H)
- Ecology Technical Note (HRD-BMM-00-RP-C-0017)
- WFD Assessment Addendum (Phase 3) (HRD-BMM-00-RP-C-0016)
- Habitat Regulations Assessment (HRD-BMM-00-RP-C-0018)
- Environmental Enhancement Opportunities (HRD-BMM-00-XX-DR-C-7001)

CEEQUAL/BREEAM
The Environment Agency (NEAS) has prepared a CEEQUAL/BREEAM Scoping Note (based on V6 of the CEEQUAL/BREEAM Technical Manual Requirements) which is included in Appendix 5.8. The Contractor shall appoint or nominate a CEEQUAL/BREEAM lead and undertake a CEEQUAL/BREEAM assessment to address the services listed in the Scoping Note.

The *Contractor* shall provide a qualified CEEQUAL/BREEAM assessor who will be the CEEQUAL/BREEAM Lead and who will scope the individual criteria for the assessment issues identified in the *Client's* CEEQUAL/BREEAM Scoping Note and submit the individual criteria scope to the *Project Manager* for acceptance.

The *Contractor* shall set up and undertake the assessment and evidence-gathering throughout the Services, using the CEEQUAL/BREEAM online tool via BREEAM Projects. The *Contractor* shall ensure that all of the evidence is uploaded within one month of completion of the Services.

The *Contractor* shall support the *Client* with scope submission to BRE as well as provide supporting information to the *Client* when handling verifier consultation.

The sustainability lead (CEEQUAL/BREEAM lead) is an integrated member of the project team who will be required to attend progress meetings, key project workshops (including but not limited to options/ design and risk) as required, provide reports and updates against CEEQUAL targets, and champion sustainability across the project team.

The *Contractor* shall provide all evidence to the *Client* upon request, to enable programme-level external verification.

Environmental staff
The *Contractor* appoints a member of his staff to have specific responsibility for environmental aspects. The *Contractor* reports on environmental aspects as part of the monthly reporting requirement as stated in the Scope.

The *Client* shall appoint a member of staff to act as Environment Clerk of Works (ECW) and have specific responsibility for monitoring and auditing of environmental aspects on their behalf. The ECW shall audit the Site no later than 3 days prior to any project progress meeting and no less frequently than on a monthly basis. The *Contractor* shall ensure provision is made to escort the ECW where appropriate and provide information as requested by the ECW. The ECW shall report back to the *Client* on compliance with the Environmental Action Plan (EAP), the targets stated in Schedule 4 of the Collaborative Delivery Framework and site best practice guidelines.

Control of pollution requirements

The *Contractor*'s attention is drawn to the control of pollution provisions in the Water Resources Act 1991. The *Contractor* takes all reasonable precautions to ensure that no polluting discharge either of solid or liquids is made to any watercourse or to the underground strata and that no work carried out in any watercourse is done in such a manner as to cause pollution. Any materials which accidentally fall into any watercourse are removed immediately.

The *Contractor* will produce method statements and Pollution Prevention Plans for each Site (as appropriate).

The *Contractor* will produce a Pollution Emergency Response Plan for each physically separate area within the Site. The *Contractor* must be aware of and comply with the recommendations of the Environment Agency Pollution Prevention Guidelines.

The *Contractor* obtains the consent of the Environment Agency before making any discharge to any watercourse or the underground strata.

The *Contractor* takes all necessary precautions to protect all watercourses, together with water in underground strata, against silting, erosion, and pollution.

The *Contractor* will produce a method statement for any over-pumping requirements. The *Contractor* shall take all reasonable steps to ensure that the pumps are of adequate capacity and that additional emergency pumps are available during appropriate high flow periods. The additional pumps are to be maintained in working order. Discharges from pumps shall be at a suitable location to prevent erosion and pollution and shall be agreed with the *Supervisor* in advance of any discharge being made. The *Contractor* obtains the consent of the *Client* prior to any over-pumping.

The *Contractor* takes all reasonable steps to ensure that:

- all stores are kept locked when not in use, and all containers are clearly labelled with their contents. Leaking or empty oil drums or chemical containers are removed from the Site immediately.
- Equipment which leaks any fuel, lubricant or hydraulic fluid is not used, and all static Equipment using fuel oil is located as far away as reasonably possible from any watercourse and surrounded with oil-absorbent material to contain spills or leaks.
- refuelling or servicing of Equipment is undertaken in designated locations away from watercourses or drains, and refuelling is supervised and carried out by pumping through a trigger type delivery nozzle.
- an adequate supply of oil absorbent material is readily available on Site at all times. Any spillage is immediately contained, removed from Site, and disposed of to a licensed tip and the *Supervisor* promptly informed.
- silted or discoloured water pumped from excavations is either irrigated over grassland or settled in a lagoon prior to any discharge to a watercourse.
- Equipment is not used in a watercourse or to ford a watercourse without the consent of the *Client*. Regular river crossings are by way of temporary bridges or culverts by agreement of the *Client*.
- haul roads and approaches to watercourses are regularly scraped and maintained free from deposits of slurry. Any slurry so removed is disposed of in a location agreed by the *Supervisor* avoiding pollution of the watercourse. Precautions are taken to ensure

surface water drains are not contaminated by solids from workings and associated transport.

- there is no discharge or seepage of cement slurry from any concreting work, mixing plant or ready-mix vehicle into any watercourse.
- equipment parking and servicing areas and wheel washing facilities are located in agreement the *Client*.
- any imported fill or construction material is free from polluting or toxic substances where drainage from the material can directly enter surface or underground waters.
- suitable sheeting is provided under any structure over a watercourse which is to be cleaned by mechanical or chemical means and/or painted in order to prevent material entering the watercourse.
- all machinery working within 5m of a watercourse is checked daily for fuel and oil leaks
- no uncured concrete or concrete residue is to enter any watercourse or standing water.
- Any soil accidentally contaminated during the *works* by potentially polluting substances such as fuels, oils, chemicals etc., is removed to a licensed tip. Absorbent materials used to contain spills are to be dealt with in the same manner.
- any stationery equipment, such as pumps, compressors, generators, etc., shall be sited on impermeable drip trays in such a way as to prevent spillage or overflowing. Drip trays shall be maintained daily.
- all engines are to be switched off when not in use and not left idling.
- a settlement facility for the removal of suspended soils from surface water run-off during construction works is provided in accordance with details previously submitted to the Local Planning Authority. The approved scheme shall be retained throughout the construction period.

Without the consent of the *Client*, the *Contractor* does not remove from a watercourse, deposits accumulated due to a dam, weir, or sluice, nor promotes the removal of deposits by causing them to be carried away in suspension in the waters

Land drainage matters
The *Contractor* complies with the Land Drainage Act 1991, the Water Resources Act 1991 & Byelaws.

The proposals for the *works* and/or temporary works, to be carried out in, over, under or adjacent to a watercourse may require the prior statutory consent of the Environment Agency. A consent application is submitted to the Environment Agency with full and detailed information of the proposed *works*.

Any consent issued by the Environment Agency does not relieve the *Contractor* of his responsibilities regarding temporary works and the *Client* will not be held liable for any damage resulting from the construction thereof.

Whilst working in a river channel, drainage course or flood plain, the *Contractor* takes all necessary measures for the adequate discharge of flood waters and for the continued operation of all land drainage systems in the area.

Any proposal for temporary diversion, obstruction or piping of a watercourse during construction is subject to the consent of the Environment Agency as is the temporary obstruction of the floodplain by spoil heaps or by any other means.

Any access or haul roads in floodplain areas are constructed to a finished level no higher than existing ground level. Prior to Completion of the *works* the access road are removed and the route reinstated to the original condition and ground levels, or other agreed level to the satisfaction of the *Client*

No material is placed within the channel or floodplain during the construction of the temporary works without the *Client* consent and the *Contractor* removes any such material and surplus, however arising, as soon as its function has been fulfilled. Floodplain within the Working Areas is kept clear at all times of all Plant, Materials and Equipment that will float.

Water resource requirement
The *Contractor*'s attention is drawn to the Water Resources Act 1991. The *Contractor* takes all necessary precautions to protect water abstractions whether licensed or not. A list of licensed abstractions is available on a public register but the *Contractor*'s attention is also drawn to the possible existence of domestic abstractions exempt from licensing.

Materially altering the rate of flow passing down a watercourse, either permanently or temporarily will require a licence from the Environment Agency and the *Contractor* is urged to contact the Environment Agency as soon as possible to initiate the procedure.

The abstraction of water from surface sources or underground sources for use in the *works* may require an abstraction licence from the Environment Agency and the *Contractor* contacts the Environment Agency to initiate the procedures.

Conservation and fisheries requirements
The *Contractor*'s attention is drawn to the Salmon & Freshwater Fisheries Act 1975, the Water Resources Act 1991, the Wildlife & Countryside Act 1981, Ancient Monuments & Archaeological Areas Act 1979, the Badgers Act 1991 and the Water Framework Directive. The *Contractor* takes all reasonable precautions to ensure that no work in any watercourse corridor is done in such a manner as to cause damage to flora and fauna.

The *Contractor* takes all reasonable steps to ensure that:

- no bed or bankside material is removed for use in construction or for temporary bunds.
- any bed material necessarily removed in the course of the *works*, is stockpiled remote from the watercourse, kept clean and replaced on Completion of *works*, or as otherwise agreed with the *Project Manager*.
- no vegetation, other than fallen trees, is removed from or adjacent to any watercourse unless agreed with the *Project Manager*.
- his proposals for maintaining at all times the free passage of fish is submitted to the *Project Manager* for approval.
- aquatic weeds are not removed in the period from the beginning of May to the end of August, and
- aquatic weeds are not sprayed at any time.
- cut vegetation from approved clearance *works* does not enter any watercourse.

without the consent of the *Project Manager*.

All necessary precautions are taken to prevent the spread of Japanese Knotweed, Himalayan Balsam, and Giant Hogweed. In particular, any spoil contaminated with the seeds, rhizomes or roots of these species is not to be spread to areas where the plants are not currently growing. Soil known to contain seeds of Himalayan Balsam shall be excavated, stored separately from other materials, covered with plastic sheeting, and reinstated in the same areas from which it originated. A method statement shall be agreed with the *Supervisor* for the handling, storage and use of soil and materials contaminated with Himalayan Balsam.

Should consent be granted for any temporary working platforms within the river channel then these are to be kept to a minimum size and are to be cleared of material and debris daily. No materials shall be left within the river channel overnight.

Tree vegetation and topsoil protection

The *Contractor* protects all trees within the boundaries of the Site or whose canopies cross the boundaries of the Site, that are to be retained, in accordance with BS 5837: 2012 Trees in relation to design, demolition and construction – recommendations.

The *Contractor* does not remove or prune any trees, shrubs or hedges unless indicated on the supplied drawings or authorised by the *Project Manager*.

Where specified or accepted, pruning is undertaken by a qualified tree surgeon. Branches to be removed are cut back to a joint to BS 3998:2010 Tree work – Recommendations and Health and Safety Executive (HSE) "Forestry and arboriculture safety leaflets".

The *Contractor* ensures that topsoil heaps do not exceed 1.0m in height, are kept weed free and are not contaminated with other materials, compacted, or tracked over by Equipment.

New timber – Sustainable materials
The *Contractor* gains custody certification on all work involving the use of timber. Refer to NCF2 Schedule 11 – Environmental Requirements for further requirements.

All new timber is provided from temperate and sustainable sources – complete with FSC, PEFC or CSI certification.

Refer to Clause A33: 751 of the Agency Landscape Specification "Environment Agency Timber Requirements".

Soil conditioners – Sustainable materials
Peat is not imported to the Site for use as a soil conditioner for landscaping and planting. Peat naturally occurring on Site is used only where already present at the location of planting and is not moved around the Site.

Imported soil conditioners are free from Peat and Coir, are manufactured from composted matter, recycled and renewable materials fully pasteurised and free from weed seeds, disease, and fungal organisms.

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

Environmentally considerate hydraulic fluids – Sustainable materials
The *Contractor* utilises Equipment which uses environmentally considerate hydraulic fluid (either a synthetic ester or a vegetable oil-based derivative) in their hydraulic systems. Traditional mineral oils and glycols are unacceptable. The *Client* may extract samples of oil from excavators on Site for analysis at an independent laboratory. Failure to comply with this requirement results in the excavator not being permitted to work on Site.

Recycled materials – Sustainable materials
The *Contractor* endeavours to meet or exceed the *Client* objective of 60% or more of Materials being used in construction work being recycled, as defined below:

- New (primary) Materials – basalt, clay, crushed rock, granite, gravel, limestone, sand, sandstone, other stone, concrete (ready mix) and other naturally occurring materials.
- Secondary Materials – china clay, china/pottery, colliery spoil, combustion residue, foundry sand, quarry waste, refractories, shale, slate waste, furnace slag, pulverised fly ash (PFA) and furnace bottom ash.
- Recycled Materials – recycled brick, crushed concrete, glass, natural stone masonry, processed road surface, tarmac and selected excavated fill (NB. re-used general backfill material and re-used topsoil should not be included unless moved from one component to another).

Percentage Recycled Materials =

Secondary + Recycled Materials / Total Materials (New, Secondary and Recycled)

The *Contractor* prepares quarterly reports for the *Project Manager* detailing the breakdown of Materials used (delivered) on Site in the quarter and cumulatively to date. The data is presented in cubic metres (m3) with the calculated 'Percentage Recycled Materials' expressed as a percentage of the Total Materials to one decimal place. Data includes Materials provided or used by Sub*contractor*s.

Archaeological Requirements

Any historical or archaeological finds are protected from further excavation or damage until the *Project Manager* agrees a way forward with the *Client*'s Archaeologist and instructs the *Contractor* how to proceed. Further works may be delayed until appropriate investigation and removal of finds has been completed.

Heritage risks and issues relating to buried archaeology and the setting of historic structures and the conservation area are known in the study area. The supplier will investigate these issues and risks, consult with statutory stakeholders, and deliver mitigation as required to fulfil any consents.

- Using the heritage desk-based assessment and foreshore survey (Assessment of Archaeological Potential) for Kingston upon Hull as the baseline in consultation with Hull City Council and the Humber Archaeology Partnership, the supplier will deliver a heritage significance and impact assessment to facilitate the development of the non-statutory Environmental Report and prioritise archaeological assessment and any mitigation to ensure public and research benefits are achieved whilst guarding against unnecessary costs.
- Any heritage assessment will be led by a member of the Chartered Institute for Archaeology (CIFA) and any field assessment, recording and/or other mitigation will be undertaken by a supplier registered with the CIFA.
- All works will achieve the Chartered Institute for Archaeology standards and to the minimum product standards set out in the *Client'*s MTR for heritage products.
- The suppliers return should identify the heritage activities, programme and expected costs
- Heritage Project Designs will be written to manage the delivery of products identified in the MTR from assessment through to publishing the results of any mitigation agreed with the *Client* and Planning Authority. Project Designs will be submitted to the *Client* for acceptance.

Navigation Requirements

The River Hull is a navigable channel and the *Contractor* notifies and agrees with the relevant authorities the use of the river as a means of providing the *works*, including access for the transportation of Plant, Materials, Equipment and People or any other item associated with the execution of the *works*. The *Contractor* complies with any constraints required by the relevant authorities.

The river is used frequently by commercial barges to service businesses operating on the river front. In the event of disruption to river traffic occurring this will be discussed in advance with the Hull City Council Harbour Master and river users, and appropriate mitigation measures agreed and implemented.

Tide Information

River working may be restricted by tidal flow. Tide tables for Hull are provided in the Site Information.

Flood Information

The *Contractor* is to liaise with the *Client* to determine flood levels in each watercourse affecting the *works*.

Hydrometric and flood warning information is available from the *Client*.

The *Contractor* registers with the *Client*'s Flood Incident Management team before commencing work on site and gives them telephone and/or fax numbers where Flood Warnings can be sent.

Contact details for Floodline and the 24 hour National Incident Communication Service are to be provided via the Environment Agency Representative. The Environment Agency Floodline number is 0845 988 1188 and National Incident Communication Service 0800 80 70 60

The *Contractor* may arrange regular weather forecast information from the Environment Agency's National Incident Communication Service. The information will be provided free of charge.

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.

Maintenance of Existing Standards of Flood Defence
Where an existing flood defence has to be removed, lowered, or weakened as part of the *works*, the *Contractor* provides a temporary flood defence ensuring that the existing standard of flood defence is maintained at all times. The *Contractor* gains the *Project Manager*'s acceptance and the Environment Agency's statutory consent for the temporary flood defence.

Except where required as part of the *works*, the *Contractor* takes all reasonable steps to ensure that the structural integrity and performance of existing flood defences are not damaged by his activities during the *works*.

Consent for *works* affecting watercourses and/or flood defences
The *Contractor* obtains consents for all parts of the *works* which affect watercourses and/or flood defences in conjunction with the *Project Manager*.

The *Contractor* submits applications at the earliest opportunity & is aware that more than one consent may be necessary. Applications for temporary *works* consents should be assumed to take 8 weeks.

Where sheet piles are installed in front of the existing river defences and narrowing of the river channel is likely to occur, consent from the Crown Estates, as owners of the riverbed, will be required. Crown Estates consents will be obtained by the Client.

Value Engineering Requirement
The *Contractor*, *Project Manager* and *Client* will attend a pre-start value engineering workshop to build upon the value engineering activities included in the outline design stages undertaken under the Hull River Defences Phases 1 and 2 contract.

S202 Confidentiality
The *Contractor* does not disclose information in connection with the *works* except when necessary to carry out their duties under the contract or their obligations under the contract

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

S203 Security and protection of the Site
In areas where work is undertaken in private property, the *Contractor* maintains at least the level of security at the property that existed before the *works* commenced.

The *Contractor* takes all reasonable steps ensure that the *works* do not compromise the security of properties within or adjacent to the Site.

The *Contractor* is responsible for the security of the Site and of vehicles and pedestrians entering and leaving the Site.

The *Contractor* takes all reasonable steps to ensure that the Site gates are closed after the passage of vehicles or personnel on each and every occasion. Gates are not to be left open.

The *Contractor* takes all reasonable steps to ensure that the Site is left properly secured at the end of each working day.

The *Contractor* considers the security of neighbouring properties and does not leave unattended scaffolding, ladders, or any condition, which provide or assist access to neighbouring properties. Where permanent security fencing to neighbouring properties is removed as part of the *works*, it is replaced by suitable temporary fencing when the Site is unoccupied.

S204 Security and Identification of People

The *Contractor*'s staff, workpeople and Subcontractor's workpeople shall wear clearly identifiable identification badges including the *Contractor*'s company name at all times whilst on the Site.

S205 Protection of Existing Structures and Services

The *Contractor* shall take all necessary steps to protect the existing structures, apparatus, services, roads, access ways, footpaths, trees, fences, gates, etc. except where modification or demolition of the existing structure or existing item is part of the *Contractor*'s design to deliver the *works*. In all cases the *Contractor* shall repair and restore any areas of the existing structures, apparatus, roads, access ways, footpaths, fences gates etc that are damaged during the *works*, howsoever caused.

If applicable to the methods used by the *Contractor*, prior to any construction activities commencing on Site, vibration trigger points and vibration limits, based on the condition of nearby structures or apparatus, shall be agreed with the *Client*. The vibration level shall be monitored and recorded by the *Contractor* in real time and work stopped if the vibration trigger level is reached and the working method amended to reduce vibrations. The Contractor shall submit a copy of the vibration records to the Supervisor.

The *Contractor* shall ensure that the ongoing functional operation of existing apparatus is not affected by the *works* other than as agreed by the *Client* in order to facilitate the delivery of the *works*.

The Contactor must verify that the services shown on the drawings are complete and correct. Any services found by the *Contractor* shall be identified and recorded in the Health and Safety File.

The *Contractor* shall hand dig in the vicinity of any services to confirm their exact location and must avoid damaging them.

The *Contractor* shall be responsible for maintaining the existing services within the Site and shall allow for the relocation of any services to allow satisfactory Completion of the *works*. All existing services, including water, electricity, telephone, drains, and other services are to be maintained without interruption during the *works*. They shall not be interfered with in any way except insofar as may be specified in the Contract or otherwise be agreed with the *Project Manager* as the *works* progress.

The *Contractor* shall comply fully with the requirements of the relevant statutory authority when working in the vicinity of their apparatus, both for the permanent and temporary works, including all access off the public highway. The *Contractor* complies with HSE Guidance Notes, Statutory Undertakers and private company requirements when working in the vicinity of their apparatus.

The *Contractor* ensures that access to existing emergency apparatus which falls within the boundaries of the Site, such as fire hydrants, is maintained at all times

S206 Protection of the *works*

The *Contractor* protects the *works*, Plant and Materials and Equipment liable to damage either by the weather or by the method used for carrying out the *works*.

The *Contractor* does not damage highways, roads, properties, land, trees, roots, street furniture or any other features, and the apparatus of Statutory undertakers, the Highways Authority, or Others.

S207 Cleanliness of the roads

The *Contractor* prevents vehicles entering and leaving the Site depositing mud or other debris on the surface of adjacent roads, pavements, or footpaths, and removes promptly any materials deposited.

S208 Traffic Management

The *Contractor* arranges all necessary temporary traffic control measures and maintains them in good working order and condition at all times, re-positioning, covering, or removing them as necessitated by the progress of the *works*.

The *Contractor* is responsible for traffic safety and management, including obtaining road closure, opening, or traffic signals consents and nominates one of his site staff to be responsible for all related activities.

Prior to commencement the *Contractor* produces a traffic management plan to minimise traffic disruption in agreement with the respective Council's Highway Department.

The *Contractor* ensures public and private access is maintained to affected areas of work.

Before any work in, or affecting the use of, any highway or road is commenced, the *Contractor*'s proposed method of working, including any special traffic requirements, is agreed with, and confirmed in writing to, the *Project Manager* and all relevant authorities.

Throughout the contract, the *Contractor* co-operates with the relevant authorities concerning *works* in, or access to, the highway. The *Contractor* informs the *Project Manager* of any requirements for, or arrangements made with the relevant authorities.

The *Contractor* provides the *Project Manager* with an up-to-date list of '*Supervisor*s' and 'Operatives' who have achieved accreditation in the relevant activities in the New Roads & Street Works Act 1991 or The Street Works (Northern Ireland) Order 1995.

The *Client* arranges all the necessary permissions, notices and licences for any permanent highway, road or footpath closures or diversions and any other permanent closures or diversions that become necessary.

The *Contractor* arranges all the necessary permissions, notices and licences for any temporary highway, road or footpath closures or diversions and any other temporary closures or diversions that become necessary.

S209 Condition survey of highways, property, and land

Shortly before first entry, the *Contractor* undertakes 'Pre-start condition surveys' of all highways, drains (inc any private drains) property, and land (including trees, boundaries, street furniture and any other features which may be affected by the *works*) within the boundaries of the Site and access to the Site and Working Areas.

The condition reports are to take the form of digital photographs and video (incorporating date identification) along with a commentary in written text in Microsoft Word format. One copy of the condition report including printed photographs and video shall be issued to the *Project Manager* and the landowner. The *Contractor* shall not start the *works* until the *Project Manager* has accepted the condition report. The survey record should be stored in the BIM archive.

The *Contractor* undertakes similar 'Post-completion condition surveys' when the *works* are complete, and on dates agreed with the *Supervisor*.

The *Contractor* undertakes the condition surveys in conjunction with the *Supervisor*, and accompanied by any Others invited by the *Contractor*, *Project Manager* or *Supervisor*. The *Contractor*, *Project Manager* and *Supervisor* notify each other in advance if any Others are invited.

The *Contractor* gives at least 3 working days' notice to the *Project Manager* and *Supervisor* prior to any condition survey.

S210 Consideration of Others

It is important to the *Client* that the *Contractor* establishes and maintains good public relations throughout the course of the contract and thereafter. Public relations include keeping the general public informed; publicising the project and the work of the *Client* in general; liaising with local residents, businesses, and landowners; dealing with complaints; and will assist the *Client* in dealing with the press and media.

All public relations activities shall be co-ordinated by the *Client* with the *Contractor*'s support.

The *Contractor* notifies the *Client* of all press or media enquiries and refers them to the *Client*'s Public Relations Co-ordinator.

S211 Control of Site personnel

The *Contractor* shall make arrangements for the control of people working and visiting the Site.

The *Contractor* shall ensure that all persons working on or visiting the Site hold a valid and current Construction Skills Certification Scheme (CSCS) card. Persons without this card shall be escorted at all times by a member of the site team.

A visitors' book shall be maintained by the *Contractor* in which the date, the time in, the time out, evidence of a specific Health and Safety induction, CSCS number, and the name and company of the person visiting shall be noted.

The *Contractor* is wholly responsible for the security of the Site, passage of vehicles, personnel / pedestrians, and security of neighbouring properties as far as their security is affected by the *works*, including personnel, Plant, Equipment and Materials used in the delivery of the *works*.

First Aiders shall additionally be clearly identifiable either through the use of coloured safety helmets, tabards or similar and identified across the Site noticeboards.

S212 Site cleanliness & Site Waste Management Plan

The *Contractor* keeps the Working Areas tidy and promptly removes rubbish, waste, and surplus materials. Plant and Materials and Equipment are positioned, stored and stacked in a safe and orderly manner. The *Contractor* applies best practice regarding materials handling, waste minimisation and waste recycling on-site. The *Contractor* prepares a Site Waste Management Plan (SWMP) in the *Client's* standard format prior to commencement of the *works*. The *Contractor* updates this until Completion and makes it available for the *Project Manager's* inspection on request. The *Contractor* completes the accompanying SWMP data sheets monthly and includes them in the *Contractor's* monthly reports. A copy of the plan and the data sheets are available from the *Project Manager.*

On award of contract the *Contractor* completes and signs the declaration in the 'project details' section of the SWMP template. The *Contractor* then uses the 'planning' section of the SWMP template to forecast waste generation on the contract and identify waste management options following the waste hierarchy approach (reduce > reuse > recycle > disposal). The *Contractor* also agrees waste management targets for the contract.

Waste Duty of Care information and permits are identified and obtained by the *Contractor.* In addition, the *Contractor* completes the 'carrier and tip details' section of the SWMP. The *Contractor* undertakes training and ensures that employees and Subcontractors are aware of the SWMP and co-operate with it. Details of wastes generated and reused on the *works* and wastes removed from the Site are kept by the *Contractor* and used to update the 'actuals' section of the SWMP.

On Completion the *Contractor* signs the declaration in the 'sign-off' section of the SWMP and submits the completed SWMP to the *Project Manager*.

S213 Controlled Waste

Where materials arising from or required for the *works* constitute 'Controlled Waste' under the Environmental Protection Act 1990, the *Contractor* provides the *Supervisor* with a copy of the carrier's licence to transport the materials and copies of all waste transfer notes.

S214 Deleterious and hazardous materials

The *Contractor* advises the *Project Manager* in writing of any substance that he proposes to bring onto Site that falls within the 'Control of Substances Hazardous to Health', Regulations 1988, or otherwise require special precautions to be taken. Such advice is to include copies of all relevant COSHH assessment sheets.

Explosives are not to be used on the Site.

Storage of fuel and chemicals

All fuel, hydraulic fluids, lubricating oils, or chemicals stored in bulk on Site are located as far away as reasonably possible, and in no case closer than 10 metres, from any watercourse/drain and that such stores are sited on impervious bases and surrounded with an effective and impervious bund capable of holding the full contents of the store plus 10%.

The drainage system of the bund is to be sealed with no discharge to any watercourse, drain, land or groundwater, and delivery and vent pipes are to terminate within the bund.

Associated pipe work should be located above ground and protected from accidental damage.

All filling points and tank overflow pipe outlets should be detailed to discharge downwards into the bund.

If there is multiple tankage, the compound should be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%.

S215 Carbon

A completed project must aim to minimise carbon emissions by:

1. Agreeing to a target (forecast) of emissions from construction that is set out in a verified carbon assessment with business case approval.
2. Exploiting the most likely opportunities for further reductions to the agreed forecast during construction.
3. Reporting the outturn of actual emissions against the agreed forecast and further reductions in a verified 'as built' update to the carbon assessment at project completion.

The project should be looking at how to minimise actual carbon emissions against the agreed forecast throughout the construction stage working with their suppliers on lower carbon products and services that meet the project scope and deliverables. A monthly report must be provided via FastDraft (using the carbon form – see application for payment section) providing:

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

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

This will inform the EA of progress in reducing carbon during construction in the form of a variance between a latest outturn forecast (reported on FastDraft) and verified forecast. The EA may require the project to set out actions to mitigate significant variances or where there is a significant change in scope to provide 'updated' versions of the carbon assessment, carbon budget and carbon appendix that will reset the construction stage outturn forecast and outturn budget.

Projects at completion must provide via Asite an 'as built' carbon appendix supported by an updated carbon assessment with outturn actual emissions reported against a previously verified forecast. The 'as built' carbon appendix and updated assessment must be verified by an EA appointed carbon specialist before completion of the project is approved. The verification process requires project team engagement with the verifier and may result in actions to:

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

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

S300 *Contractor's* design

S301 Design responsibility

For each section of the *works* the *Contractor* is provided with an outline design solution to return the asset condition for a particular location up to the required acceptable standard.

The outline design represents the *Client's* preferred alignment of the new defences. The *Contractor's* design solution should not deviate by more than 2 metres from the *Client's* preferred alignment of the new defences unless agreed with the *Client* and accepted by the *Project Manager*.

Design, methodology and approach are a *Contractor* risk, this includes, but is not limited to, design, construction methodology, length, size or diameter and type of piles.

The *Contractor's* design will not rely upon existing ground anchors. unless accepted by the *Project Manager*.

The *Contractor* is responsible for the review, assessment, and verification of the appropriateness of the outline design information and any development or modification necessary to provide the required asset standard.

The *Contractor* is responsible for the complete development of the outline design and subsequent production (including temporary works design) of an appropriate detailed design solution that is cost effective and that returns the assets to the required standard.

Pile deflections specified in section S304 are based on CIRIA guidance on embedded retaining wall design. A relaxation of pile deflection of up to 100mm may be accepted where a damage assessment for any buildings and services within the zone of influence of the structure demonstrates that no significant damage will occur. Acceptance of pile deflection of up to 100mm based on the above, will not unreasonably be withheld. *Contractor*s must comply with the relevant BS and Euro codes.

Where the edge of the new riverbank is located further into the channel as a result of the *works,* the existing fencing is to be extended (line and level) across new and existing (if any) capping beam. In addition to the above requirement at intervention 201L39-40 the Contractor is to allow for installation of 2.1m high palisade fencing alongside the new intervention extended at downstream end to intervention 201L38.

In addition to the above requirement at intervention 201L39-40 the Contractor is to allow for installation of 2.1m high palisade fencing alongside the new intervention extended at downstream end to intervention 201L38

S302 Design submission procedures

During the detailed design phase of the *works* the *Contractor* allows four weeks from initial provision of a complete set of draft drawings and documents for the *Project Manager* to accept (or reject), comprising two weeks initial review, a week for the *Contractor* to address comments and one week for the *Project Manager* to accept. The design submission and acceptance procedure is included in Appendix 4.

Information submitted by the *Contractor*, whenever requested by the *Supervisor* or *Project Manager*, shall include the following:

- Method statements, lifting plans, welfare facilities, risk assessments and the like.
- Design drawings and calculations related to permanent and temporary works.
- Design drawings required for compliance with statutory obligations.

The *Contractor* shall continually update the contract drawings throughout the construction stages to record all changes and developments.

To ensure accurate "As Built" information, any site modifications should be recorded by the *Contractor*, submitted to the *Project Manager* for acceptance, and incorporated into the "As Built" Drawings and O&M Manuals.

S303 Design approval from Others

Where necessary and in accordance with Clause 27.1 the *Contractor* obtains approvals for his design as follows.

- Once specialist design Subcontractors are appointed by the *Contractor*, the *Project Manager* and Principal Designer will be notified accordingly.
- Once the *Project Manager* and Principal Designer receive notification of an appointment of a specialist design Subcontractor, an agreed level of information sufficient to enable the Subcontractor to design, manufacture, supply, install and fully co-ordinate the package into the *works* must be established in conjunction with *Contractor* and *Project Manager*.
- The Specialist design Subcontractor must then be kept fully updated on any subsequent revisions to previously agreed information by the *Contractor*. The *Contractor* will be responsible for co-ordinating the interface of these specialist works at design co-ordination meetings.

S304 *Client's* requirements

The *works* are to be designed and constructed in accordance with the current version of the *Client's* Minimum Technical Requirements (MTRs). The version current at the time this Scope document was prepared is 'Version 12', dated 31/12/2021.

The *Client's* MTRs incorporate the 'Civil Engineering Specification for the Water Industry, 7th Edition', published by the Water Services Association in March 2011.

General

G1 Dimensions and levels of the existing riverbed shown on the drawings are indicative only and are based upon historic level surveys. The *Contractor* will be responsible for confirming the existing bed levels as part of the detailed design process.

G2 The *works* will require modifications to, and *works* in close proximity to, existing structures. The Contractor is responsible for undertaking the necessary surveys in order to determine the design, construction proposals and temporary works to maintain the stability and existing condition of those Structures.

G3 Composite services information has not been provided on the illustrative drawings and the *Contractor* is responsible for referencing the base data to determine possible interaction between existing services and the proposed design. An initial study has been undertaken during the development of illustrative design and where significant potential clashes with services have been identified this has been communicated within the appropriate SHE box.

G4 For information on ground conditions and structural core surveys reference should be made to 'River Hull Defences Stage 2 Ground Investigation – Report on Ground Investigation', GI31047U, FES, Jan 2014 and 'Hull River Defences GI, Ground Investigation Report – Factual Account' Project Reference 305P, 28 February 2017 contained in Appendix 6 of the Site Information.

Design Codes and Minimum Design Requirements

D1 The design life of all new structures or modifications to existing structures is to be 50 years.

D2 Unit weights of materials shall be as defined by BS EN 1991, Part 1-1. The unit weight of brackish water shall be taken as 10.3kN/m^3.

D3 An allowance should be made of a groundwater difference across retaining walls during river fluctuations.

D4 The designs should recognise the potential for future removal of up to 0.5m of silt below the existing riverbed as a result of actions such as dredging or scour.

D5 The design should be undertaken with the following codes of practice unless specified otherwise:

- BS EN 1990 : Eurocode 0 : Basis of Structural Design
- BS EN 1991 : Eurocode 1 : Actions on structures
- BS EN 1992 : Eurocode 2 : Design of concrete structures
- BS EN 1993 : Eurocode 3 : Design of steel structures
- BS EN 1996 : Eurocode 6 : Design of masonry structures
- BS EN 1997 : Eurocode 7 : Geotechnical Design
- BS EN 206-1 and BS 8500 Methods of specifying concrete including ready mixed concrete
- BS 6349-1-4 : Maritime works. General - code of practice for materials
- BS 6349-1-3 : Maritime works. Code of practice for geotechnical design
- BS 6349-1-2 : Maritime works. Code of practice for the Assessment of Actions
- BS 6349-Part 2 : Maritime works. Code of practice for the design of quay walls, jetties and dolphins
- BS 6031 : Code of Practice for Earthworks

D6 Consideration should be given to the relative deflection of all proposed structures. The maximum deflection for sheet pile retaining structures.

D7 Concrete specifications to be determined in line with BS 8500 and BS EN 206. The Exposure class should be as follows:

Submerged	XS3
Tidal Zone	XS2
Any Zone	XS1

D8 Concrete covers should be defined in line with BS EN 1992 and BS 8500 given the exposure class given above and the proposed concrete mixes.

D9 Minimum concrete strength to be C25/30 for mass concrete elements and C32/40 for reinforced concrete elements.

D10 Stainless reinforcement shall be stainless steel designation number 1.4436 (grade 316), strength grade 500 to BS 6744:2023, with ribs equivalent to deformed Type 2 of BS 4449.

D11 Concrete elements that function as water retaining structures shall comply with the requirements of BS EN 1992-3. Appropriate waterproofing by hydrophilic strips of waterstops shall be detailed at all construction joints and movement joints within concrete structures. Early Thermal Crack control shall be considered in line with CIRIA Report C766.

D12 The minimum concrete thickness should be 250mm for reinforced concrete elements and 150mm for sprayed concrete elements.

D13 Minimum steel grade for external steelwork to be S355 to BS EN 10025 : 1993 steel notch toughness subgrades should be to BS EN 1993 assuming a service temperature of -15°C for external exposure.

D14 General corrosion rates for steelwork should be determined in line with BS EN 1993-5. Water in River Hull to be classed as saline for this assessment. The Contractor's attention is drawn to the presence of Accelerated Low Water Corrosion on a number of structures on this stretch of the River Hull. The Contractor should take due consideration of this in the design through reference to CIRIA Publication C634.

D15 Painting of external structural steelworks should be specified in accordance with BS EN ISO 12944. The corrosivity category for the site should be taken as C4.

D16 Sheet pile and bored pile retaining *works* should be designed in accordance with BS EN 1997 with Ka, Kp and K_0 coefficients as defined by the code. The maximum pile ground friction should be $\delta = ⅔\Phi'$ on both the active and passive sides.

D17 Design of masonry walls to comply with BS EN 1996. Minimum strength of bricks designed as structural elements for retaining water to be 50N/mm^2 with a water absorption of ≤ 7.0% by mass. All masonry walls designed to retain water to be tanked and to have appropriate water stops in line with the general watertightness criteria.

D18 For areas of regrading works all new drainage to be designed in accordance with BS EN 752. Highway works to be carried out to the adoptable standard for the relevant local authority and with reference to the Manual for Streets, DfT, 2007.

D19 The Contractor should carry out ground investigations and structural investigations to complete the design of all flood defences if required.

D20 At the commencement of the contract the Contractor shall develop a Design Method Statement which shall cover all aspects of the proposed design. This should be submitted to the Project Manager for acceptance.

D21 *Works* to be design with all due reference to current Health and Safety Acts and Regulations including Construction Design Management Regulations (CDM) 2015.

Minimum Workmanship and Material Standards

Piling and Sheet Piling

P1 Bored piles shall be installed in accordance with BS EN 1536. Diaphragm walling should be installed in accordance with BS EN 1538.

P2 Sheet pile walls should be constructed in accordance with BS EN 12063.

P3 Piling tolerances should be 100mm in plan position and 1 in 75 vertically.

P4 As build piling records should be maintained in accordance with the relevant execution standard.

P5 Grouting works should be undertaken in accordance with BS EN 12715.

P6 Sheet piles should comply with BS EN 10248-1.

P7 Vibration and Noise criteria to be agreed with local authority and relevant stakeholders. Monitoring may be required if considered appropriate by local authority. The Contractor's attention is also drawn to the requirements of sections S201 and S205.

Concrete

C1 Concrete's should be designed mixes specified in accordance with BS 8500 and BS EN 206. Proposed concrete mixes should be submitted to the Project Manager for acceptance.

C2 Cement replacements are permitted.

C3 Testing of concrete should comply with BS EN 206 and BS EN 12350.

C4 Repairs to concrete structures should be undertaken in accordance with BS EN 1504.

Structural Steel

SS1 All structural steelwork, including structural fasteners and welding consumables should comply with the relevant section of BS EN 10025 and BS EN 1993.

SS2 Steel testing shall be in accordance with BS EN 1993 test certificates for the materials and welding shall be maintained.

SS3 Tolerance of erected steelwork shall comply with BS EN 1993 and meet the requirements of EN1090-1

SS4 Galvanisation shall be in accordance with BS EN ISO 1461.

SS5 Paint protection systems shall comply with BS EN ISO 12944.

Waterproofing

W1 All waterproofing should be specified and executed in accordance with BS 8102.

Masonry

M1 Basic masonry workmanship shall comply to BS 8000: Part 3.

M2 Precast masonry units and clay bricks to comply with BS EN 771 and 772.

S305 Design co-ordination

In developing the design, as a minimum the *Contractor* shall consult with the following parts of the *Client* organisation, all of whom will make themselves reasonably available to attend design review meetings that are part of the design process:

- Environment Agency FCRM teams (Operation Field Team, MEICA Team, Hydrometry and Telemetry, Asset Performance, Senior User, Catchment Engineer).
- Legal and Estates team.
- Fisheries, Biodiversity, Geomorphology.
- Principal Designer appointed by the *Client*.
- Project & Contract Management (PCM) and National Environmental Assessment Service (NEAS).
- Independent Technical Advisor if appointed by the *Client*.

S306 Requirements of Others
Not Used

S307 Copyright/licence
The *Contractor* grants a free, unequivocal, irrevocable licence to the *Client* to use all intellectual property, copyrights and licences that are used in the *Contractor*'s design.

S308 Access to information following Completion
The *Contractor* retains all documents relating to the design of the *works* for a period of no less than 12 years after Completion and upon the written request of the *Client* provides to the *Client* copies of such documents. Where the request is made by the *Client* more than 12 months after the date of issue of the Defect's Certificate, the *Client* pays the *Contractor* his costs for providing such documents.

It is not envisaged that there will be any requirements for access to information once the Defects Certificate is issued including the timescale for the retention of any information after Completion. The *Contractor* sends the *Client* any information not previously communicated on issue of the Defects Certificate. The *Client* communicates receipt of this information.

S309 Site investigations
The *Contractor* obtains additional soils information as necessary for the design of the *works.* The *Contractor* specifies, procures, manages, and undertakes site investigations to inform the detailed design of the *works* and to manage their risk of unforeseen ground conditions during construction. The *Contractor* undertakes laboratory testing of samples, and longer-term monitoring of site conditions as required. This supplements the information provided in the Site Information.

The *Contractor* liaises with all historic environment stakeholders as required to ensure that the heritage and archaeological risks are identified and appropriately managed. The *Contractor* obtains all necessary consents and approvals.

The *Contractor* provides the *Project Manager* with the final Factual Report of any additional investigation in digital format.

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

Access for site investigations is subject to the restrictions and procedures described in S201.

S400 *Completion*

S401 Completion definition

Prior to Completion of the *works*, the *Contractor* shall arrange through the *Project Manager*, giving at least 10 days' notice, a handover meeting with the *Client*. The Handover meeting shall be held in the last month of the *works* and shall include as a minimum the following:

- A familiarisation tour of the *works*.
- Familiarisation in the use of unusual / innovative elements of the scheme.
- Specific health and safety issues relating to the use, operation and maintenance of the *works*.

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

The *Contractor* shall:

- Provide 1 hard copy of Health and Safety File and one electronic version Adjust this to Provide all information to the Principal Designer, if the Principal Designer is compiling the Health and Safety File. The manuals shall contain, but not be limited to, the following information:
    - Index;
    - General description of the Plant and its operation;
    - A complete set of as-built drawings for the entire civil and any M&E installation;
    - Source code for all computer software used in the *works*;
    - All test certificates;
    - A list of all signed Site Acceptance Test (SAT) documentation for all items and systems on site;
    - Inspection and testing shall be allowed for to ensure compliance with this Specification, applicable standards, drawings and works test requirements.
- 1 hard copy of Operating and Maintenance Manuals and one electronic version.
- 1 hard copy of As Built drawings and one electronic version
- Population of the *Client's* latest version of the Project Cost and Carbon Tool (PCCT), or its successor
- Transfer to the *Client* databases of BIM data
- Delivery of the Final Carbon Appendix
- The *Contractor* shall have completed the CEEQUAL/BREEAM process including provision and uploading of all evidence to the CEEQUAL/BREEAM online tool.

The *works* required to be done by the Completion Date is:

- The whole of the *works*

This shall include, but not be limited to, the following:

- Fulfilled the requirements of Clause 11.2 (2) & 11.2 (15) of the conditions of contract;
- No Defects will exist that prevent safe access & operation by the Client;
- No Defects will exist that present a health & safety hazard to the public;
- Provided a full set of Sectional Completion Certificates (where applicable), which are in accordance with the C*ontractor's* Quality Plan and endorsed by the Project Manager;
- Provided a full set of "as constructed" drawings signed off and accepted by the Project Manager;
- Conducted a project handover meeting that includes the Client;
- Supplied all electronic documentation to the Client's Common Data Environment;

- A breakdown of the final total of the Prices, in the Project Cost Tool format

Prior to Completion, the *Contractor* provides the information as per the *Client*'s Health and Safety File requirements in electronic and paper format to the Principal Designer for inclusion in the Health and Safety File.

S402 Sectional Completion definition
Option X5, X5.1 Work to be done for each Sectional Completion.

The following are absolute requirements for Sectional Completion without these items the *Client* is unable to use the *works*:

- Transfer to the *Client* databases of BIM data
- Delivery of the carbon differentials between alternative design solution options at appraisal stage (if appraisal, design and build)
- Delivery of carbon considerations in PAR (if appraisal, design and build)
- Completion and Delivery of Carbon optimisation report at Gateway 3 (if design and build)

S403 Training
Where the accepted design solution requires manual or reactive intervention (e.g. operation of equipment, floodgates, placing of stoplogs etc), training of the Client's and Landowner's (where relevant) Operatives is to be provided.

S404 Final Clean
All debris, unused materials and temporary works are to be cleared and dismantled from site to allow the site to return to its natural state and to encourage flora and fauna to be re-established throughout the site.

S405 Security
There will be no security requirements once the scheme is handed over at Completion to the *Client*. Following final inspection of the *works*, the scheme will be handed over to the *Client* and pre-entry security arrangements re-instated.

S406 Correcting Defects
During the period between Completion and the defects date, the *Contractor* will be required to give the *Client* and *Project Manager* a minimum of one week's notice before any planned Defect correction work, unless the Defect is considered to pose an immediate threat to safety and the correction works are considered to constitute 'emergency works'. Where the *Contractor* requires access to private land or property for planned Defect correction work the notice and access arrangements contained in S201 will also apply.

S407 Pre-Completion arrangements
Prior to any *works* being offered for take over or Completion the *Contractor* shall arrange a joint inspection with the *Supervisor*, *Project Manager*, *Client* (scheme *Project Manager*) and Senior User. The initial inspection shall take place a minimum of three weeks in advance of the planned take over or Completion.

S408 Take over
Refer to Contract Data part 1 to ascertain whether the **Client** is/is not willing to take over the *works*, or parts of the *works,* before the Completion Date. See Appendix 3 in Site Information for extent.

S500 Programme

S501 Programme requirements

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

The programme shall be submitted in Primavera P6 (xer), Microsoft Project (mpp) and portable document (pdf) formats.

The programme shall include milestones and activities (as appropriate for):

- Preparation, submission and obtaining of all necessary permits, consents and statutory consultations and notices (e.g. Local Authority planning, MMO Licence, Environmental (Flood Risk) permits etc)
- Submission, review, and acceptance of the *Contractor*'s design proposals
- Notification of access requirements and the serving of Notices of Entry
- Consultation and liaison with the Harbour Master
- Consultation and liaison with relevant Stakeholders
- Notification periods for temporary road closures, footpath closures, footpath diversions and consents for river working

The programme shall consider the constraints listed in S201 and also consider the following potential constraints:

- Tide times,
- River navigation requirements,
- Landowner access arrangements,
- All environmental considerations
- Hull City Council Requirements

The *Contractor* shall take account of these constraints and clearly identify them on the programme.

S502 Programme arrangement

The programme shall be provided in a format(s) to be agreed with the *Project Manager* and in hard copy, pdf and digital formats. Activities to be undertaken by the *Client* are to be clearly identified on the programme.

S503 Methodology statement

Method Statements shall be submitted for information only to the *Supervisor* two weeks in advance of the associated activities taking place.

While activities are undertaken on Site, the *Contractor* shall provide daily and weekly work plans Which are to be provided to the *Supervisor* prior to the relevant work commencing.

S504 Work of the *Client* and Others

The *Contractor* will liaise with the *Client* to agree access for installation of the defences.

The order and timing of the work of the *Client* and Others to be included in the programme.

S505 Information required

The *Contractor* includes the following information as separate activities in the programme in addition to that stated in ECC clause 31.2:

- Critical Path shown in red;

- Date when Notice of Entry details to be submitted to the *Project Manager* for action;
- Date when the *Contractor* requires occupation of each area of ownership or occupation;
- Application dates for footpath closures;
- Requirements/restrictions of third parties;
- Landscaping works – clearly identified seeding, planting, etc;
- Resources and resource profile;
- Production rate outputs;
- Cash flow forecast profile;
- Acceptance periods and schedules of items as stated in the Scope;
- All time risks are to be clearly identified within a separate information column to the left of the Gantt bar chart section of the programme;
- Project handover documentation including health & safety file documentation;
- Lessons Learnt review
- Significant temporary works;
- Material / sample panel acceptances; - paving, cladding panels, railings, etc;
- Traffic management plan;
- Temporary works consent applications;
- *Contractor*'s shutdown periods e.g. Christmas, Easter, Statutory Holidays, etc;

S506 Revised programme

The *Contractor* shall arrange for programme review meetings with the *Project Manager* and *Supervisor* on a monthly basis, or by exception as requested by the *Project Manager* and three days prior to each monthly progress meeting and shall review the following:

- Comparison between updated clause 32 programme submitted for acceptance and the last Accepted Programme. This is required both graphically & tabular as agreed with the *Project Manager*.

Further to the requirements of Clause 32, the *Contractor* shall provide a narrative explaining the changes to each programme activity, sufficient to enable the *Project Manager* and *Client* to understand the cause and impact of such change. The *Contractor* shall also show any risks and their potential impact either on their revised programme or a separate programme.

S507 Monthly reports

In managing the service the *Contractor* shall submit monthly progress reports to the *Project Manager*, on dates to be specified by the *Project Manager*.

The monthly progress reports cover the following:

(i) Progress:

- Activities started, progressed & completed during the month
- Activities planned for the forthcoming month.
- Summary of ground conditions encountered.
- Summary of weather
- Significant changes to the Scope instructed.
- Price for Work Done to Date.
- Forecast total of the Prices.
- Monthly cost profile.
- Carbon report and forecast
- Summary of compensation events.

(ii) Labour/Materials/Equipment/Subcontract:

- Summary of principal Equipment & Materials brought to Site or taken off Site.

- Subcontractors on Site.
- Approximate numbers on Site.

(iii) Programme:

- A marked up copy of the Accepted Programme showing progress & percentage completion of each activity.
- A revised programme (if appropriate, or if required by the Contract Data, part one).

(iv) Issues:

- Problems encountered or anticipated

(v) Information/services required from the *Client*

(vi) Public Relations:

- Contacts with the public or other third parties
- Complaints or claims

(vii) Health & safety incidents:

(viii) Environmental:

- Pollution incidents
- Recycling & waste reports
- Site Waste Management Plan Data Sheets

(ix) Representative progress photographs:

Any other issue/subject requested by the *Project Manager*.

Other Reporting Requirements

- Contribute monthly to the updates to the Early Warning Register.
- Provide input to project efficiency Combined Efficiency Reporting Tool (CERT) Form.
- Produce monthly financial updates and forecasts meeting the Client's project reporting timetable together with progress reports.
- Project forecast outturn project carbon profile (to be updated Quarterly)
- Ensure quarterly input into framework performance assessment/environmental Performance Measures.
- Capture and report on lessons learnt relevant to scheme delivery

Progress Photographs and video footage

The Contractor shall provide all progress photographs and video footage in an agreed file format. Photos and footage are to be provided within one week of them being created by uploading copies of the files to a location to be agreed with the Project Manager.

S600 Quality management

S601 Samples

Samples shall be taken in accordance with the specifications in the appendices to this document.

Submissions and acceptance shall be via the *Project Manager*

S602 Quality Statement

The *Contractor* certifies that activities have been carried out in accordance with the Scope when the;

- *Contractor* has checked & certified that the work is in its correct position, level and alignment;
- *Contractor* has checked & certified that Materials, workmanship cleanliness and other matters not checked by the *Contractor* are correct;
- *Contractor* has certified Materials tests.

Copies of relevant supporting certificates relied on by the *Contractor* are attached to his certificate.

The *Project Manager* and/ or the *Supervisor* may at any time audit the quality control process and for this purpose is given assistance & access by the *Contractor* to:

- documents used in connection with the certification process, including but not limited to site diaries, calibration certificates, memos;
- interview persons involved in providing the *works*.

S603 Quality management system

The *Contractor* operates a Quality Management System complying with BS EN ISO9001

The *Contractor* describes the Quality Management System in a Quality Plan, which is provided to the *Project Manager* for acceptance within 14 days of the Contract Date.

The quality of the works is self-certified by the *Contractor* as set out in the Quality Plan accepted by the *Project Manager*.

It is a key driver of the *Client* to complete the project with “Zero Defects”; therefore the *Contractor* shall strive to work together with the *Supervisor* in highlighting and correcting Defects as they occur. A Defect is defined under clause 11.2(6) of the conditions of contract.

S604 BIM requirements

All *Client* issued information referenced within the Information Delivery Plan is Site Information unless it is referenced elsewhere within the Scope.

The Client’s BIM requirements are included in Appendix 2.

S700 Tests and inspections

S701 Tests and inspections

The *Contractor*, the *Supervisor* and Others undertake the tests and inspections as detailed in the *Client*'s Minimum Technical Requirements or as agreed with the *Project Manager*.

The following items of Plant and Materials are tested or inspected prior to delivery to the Working Areas:

- Imported topsoil; to be tested in accordance with the NEAS Landscape Specification
- Imported stone
- Pre-cast concrete
- Piles (both steel and concrete)
- Test results will be added to the BIM archive

S702 Management of tests and inspections

Within four weeks of the access date, the *Contractor* shall compile and submit to the Supervisor and the *Project Manager* for acceptance, a test and inspection schedule containing all relevant information. The schedule shall be updated monthly and the revision submitted to the Supervisor and the *Project Manager* for acceptance five working days before the scheduled Monthly Progress Meetings.

S703 Covering up completed work

No operation shall be carried out or covered up without full and complete notice being given to the *Supervisor* by the *Contractor*, sufficiently in advance of the time of the operation to enable the *Supervisor* to make such arrangements as he deems necessary for inspection and checking.

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

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

The *Contractor* shall notify the *Supervisor* when elements of the *works* are ready for inspection.

The *Contractor* shall not progress elements of the *works* which are subject to inspection until the *Supervisor* has undertaken their inspection. If the *Supervisor* is not able to inspect the *works*, the *Contractor* shall seek approval from the *Project Manager* to progress the *works*.

S800 Management of the *works*

S801 Project team – Others

The *Project Manager* is responsible for managing the contract on behalf of the *Client*, and deals with time, money, and changes to the contract.

The *Supervisor*'s duty is to ensure that the *Contractor* Provides the *works* in accordance with the Scope.

References in the Minimum Technical Requirements, and related Standard Specifications, 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*, they shall ask the *Project Manager* to decide the issue.

S802 Communications

Progress Meetings:

The *Contractor* shall attend monthly Progress Meetings that are chaired by the *Client* or Project Manager who produces the Agenda. The minutes are to be prepared and distributed by the chair of the meeting.

For the Progress Meeting the *Contractor* shall produce a progress report detailing *works* progress since the last meeting, health and safety checks and incidents, progress against programme, public relations/interaction, planned *works*, commercial situation, any other issues.

The *Contractor* may also be required to attend the Project Board meetings as arranged by the Project Executive, and other meetings as requested by the Client or Project Manager.

ASite

All files to be shared with other parties shall be uploaded to ASite, the Environment Agency's collaboration tool, complying with the BIM level 2 maturity scale.

Contract Administration:

The *Contractor*, *Project Manager* and *Supervisor* shall use the *Client*s web-based Contract Administration platform – FastDraft.

When using the "Third Party Data Supply to Agency *Contractor*s" form the *Contractor* should be aware that any information supplied by the *Client* is not warranted by the *Client*. The *Client* will not accept any liability for the supply of inaccurate information.

S900 Working with the *Client* and *Others*

S901 Sharing the Working Areas with the *Client* and *Others*

The River Hull is a navigable channel and the *Contractor* notifies and agrees with the relevant authorities the use of the river as a means of providing the *works*, including access for the transportation of Plant, Materials, Equipment and People or any other item associated with the execution of the *works*. The *Contractor* complies with any constraints required by the relevant authorities.

The river is used frequently by commercial barges to service businesses operating on the river front. The Contractor shall consult the Harbour Master and other river users in the event that the *works* may cause disruption to river traffic. The Contractor shall also obtain any necessary permits from the Harbour Master.

S902 Co-operation

The *Contractor* is required to co-operate with Others in obtaining and providing information which they need in connection with providing the *works*. Throughout the *works*, the *Contractor* in conjunction with the *Client* shall regularly keep all affected stakeholders up to date on progress with the *works*. This shall include, but not be limited to, the Public Rights of Way, Highways/ Roads/ Harbour Master/ Rivers Authority, Police, Landowners, and affected stakeholders.

S903 Co-ordination

Refer to S201 “Access to the Site and “Entry to the Site”

In addition to the Client, the Contractor will liaise and coordinate with:

- Hull City Council
- River Hull Harbour Master
- Landowners and Tenants

S904 Authorities and utilities providers

The *Contractor* shall identify, programme and coordinate *works* to be carried out by authorities and utility providers within the Working Area.
The *Contractor* shall undertake any required surveys to identify utility providers apparatus.

S905 Diversity and Working with the Client, Other and the Public

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

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

S1000 Services and other things to be provided

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

The *Contractor*'s attention is directed to Section 1 of the 'Minimum Technical Requirements' document in Appendix 6.

Where the following facilities and service differ from, or conflict with, the MTRs, the following shall take precedence.

The *Contractor* provides for the *Client*, *Project Manager* and *Supervisor* use of the following:

- 4 workstations with desk, office chair, large format monitor (24 inch) with HDMI input, cabinets, cleaning;
- Meeting room for 15 people;
- Storage facilities;
- Kitchenette/Catering facilities;
- Medical facilities and first aid;
- Sanitation;
- Security;
- Copying and printing;
- Telephone, fax, radio, high speed broadband;
- Safety equipment – where specific coloured PPE is required, this is to be provided by the *Contractor*. Where task specific PPE is required over and above standard 5 point protection (e.g. life jackets), this is to be provided by the *Contractor*.
- Where training or escort is required for the Supervisor, Project Manager or Client (or their representatives) to enable them to access parts of the site, this is to be provided by the *Contractor*;
- Parking for 4 vehicles within the site compound

The *Contractor* provides access/gates in temporary site fencing as necessary for the use of the occupiers of adjacent lands.

Site Accommodation

The *Contractor*'s, the *Project Manager*'s, and the *Client*'s staff share facilities as much as possible to maintain a team approach to project delivery. The *Contractor* shall provide shared, fully serviced, office accommodation for the duration of the project in a temporary site office. This accommodation should be suitable for the *Contractor*, *Project Manager*, *Supervisor* and *Client* and their staff to administer the contract. The *Contractor* shall allow for and undertake all necessary remedial *works* to bring any hired or rented premises back to their original condition at the Completion of the *works*.

The *Contractor*, as appropriate, provides, erects, maintains, and subsequently removes all temporary satellite compounds, welfare facilities, stores, parking areas and the like for the use of *Contractor*'s staff and work force that are necessary for the Completion of the *works* and the correction of defects.

Equipment for the Project Manager and the Supervisor

The *Contractor* provides and maintains for the sole use of the *Project Manager* and *Supervisor*, the instruments and equipment listed in the *Client*'s Minimum Technical Requirements. Items are new or reconditioned at the start of the *works* and are subject to the acceptance of the *Project Manager*. Measuring instruments are provided with current documents from a qualified calibration laboratory certifying their accuracy.

The *Contractor* ensures that each item is in good repair and adjustment and makes good any loss or damage howsoever caused.

Unless otherwise instructed by the *Project Manager*, each item is returned to the *Contractor* when it is no longer required for use on the *works*.

Assistance for the Project Manager and Supervisor
The *Contractor* provides the services of competent surveying assistants, as and when required by the *Supervisor*. The assistants will undertake surveying and other duties as the *Supervisor* requires

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

- Access to the Site
- Landownership details
- Flood Defence Levels
- Existing storage area at Alexandra Docks leased by the Client from Global Shipping

The known names and addresses of the relevant Landowners and Occupiers are included in Appendix 2 of the Site Information.

Flood Defence Levels are included in Appendix 3 of the Scope.

S1100 Health and safety

S1101 Health and safety requirements

The *Contractor* will be the Principal Contractor in accordance with the Construction (Design and Management) Regulations 2015 (CDM Regulations).

The *Contractor* provides the Construction Phase Plan in accordance with CDM (2015).

The *Contractor* shall adhere to the requirements of the Client's Safety Health Environment and Wellbeing Code of Practice (January 2023) (SHEW CoP), refer to Appendix 7.

The *Contractor* shall provide first aid facilities; materials and personnel trained in first aid, for the benefit of his own people, those of his Subc*ontractor*s and the site staff of the *Project Manager*, *Supervisor* and *Client*.

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

Toolbox Talks

The *Contractor* shall provide regular toolbox talks to site personnel to ensure that health and safety issues, the requirements of the contract and the design and the contents of method statements are communicated throughout the site team. Toolbox talk topics include:

Particular health and safety issues relating to the site such as the presence of the operational plant, contaminated ground, etc;

- The requirements of the Environmental Statement and environmental considerations on site;
- Liaison with the public and local businesses;
- Working methods and procedure;
- Emergence Preparedness Plans.

Incident Reporting

The *Contractor* reports any health safety and environmental incidents on site using the procedure outlined in section 4.32 of the Client's SHEW CoP (January, 2023).

The *Contractor* shall provide a written report within 21 days of the incident, unless otherwise agreed with the *Project Manager*.

S1102 Risk Assessments and Method Statements

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

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

Risk assessments and method statements are to include the following information:

- Health & Safety measures;

- Extent of Working Areas and protective barriers;
- Access to Working Areas, including works adjacent to water;
- The implementation of relevant statutory regulations;
- The design and construction of temporary works and de-watering measures;
- How the environmental impacts of the activities are to be minimised;
- Equipment requirements, siting and mode of operation;
- Labour requirements and supervision;
- Delivery and storage of Materials;
- Provision of access to third parties;
- Details of the construction sequence;
- Details of working methods;
- Result of any consultation with third parties;
- Contingency plans in the event of flooding, other difficulties or emergencies;
- Risk & COSHH assessments;
- The protection of trees during construction;
- Topsoil spreading and grading
- Traffic management on site;
- Interface with the public
- Copies of the current manufacturer's instructions and explanatory brochures for all proprietary Materials or processes to be used in the contract, prior to their incorporation into the *works*.

Pollution prevention method statements will identify procedures to be followed in the event of a flood. The *Contractor* shall provide method statements and risk assessments, at least two weeks prior to the commencement of the *works* to which it applies.

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

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.

The *Contractor* shall provide method statements and risk assessments, at least two weeks prior to the commencement of the *works* to which it applies.

Emergency arrangements

The *Contractor* maintains arrangements whereby he can call out, within 3 hours labour, Equipment and Materials outside normal working hours to carry out any work needed for an emergency associated with the *works*.

The *Contractor* provides the *Project Manager* at all times with the names and telephone numbers of at least two senior members of the *Contractor*'s site team who are responsible for organising emergency work. These people are included on the *Client*'s emergency contacts arrangements form.

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 reasonable access to members of the emergency services who may inspect the Site.

The *Contractor* provides access to all parts of the Site for the *Client*'s Operations staff to undertake emergency inspections or repairs to hydrometric equipment or flood defences.

S1103 Legal requirements

The Principal Designer duties under the CDM Regulations 2015 shall be undertaken by a third party nominated by the Employer.

The Construction (Design & Management) Regulations 2015 (the CDM Regulations) apply to the *works*. The 'Principal Designer' is:

Jacobs
One City Walk
Leeds LS11 9DX

Contact: Colin Morrison, e-mail: colin.morrison@callsafe-services.co.uk

The *Contractor* will be appointed as 'Principal Contractor' under the CDM Regulations.

The CDM Pre-Construction Information is included in Site Information Appendix 4.

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

The *Contractor* familiarises himself with the contents of the CDM Pre-Construction Information and the *Client*'s Health & Safety Policies and Codes of Practice, including 'Safety is Paramount'.

The *Client* duties under the CDM Regulations 2015 shall be undertaken by the *Client*.

The Principal Contractor duties under the CDM Regulations 2015 shall be undertaken by the *Contractor*.

The Designer duties under the CDM Regulations 2015 shall be undertaken by the *Contractor*.

S1104 Inspections

The *Contractor*'s health and safety officer shall carry out monthly audits of the Site and submits copies of audit reports and proposed remedial actions to the *Supervisor* prior to the end of the following week.

The *Client* may carry out site audits. The *Contractor* assists in these audits and complies with any recommendations made during such audits.

S1200 Subcontracting

S1201 Restrictions or requirements for subcontracting
Sub*contractors* should be sourced from the local labour market where possible.

S1202 Subcontractor acceptance procedures
None additional to the contract.

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

S1203 Procurement of subcontractors

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

This requires the *Contractor/ Consultant* to demonstrate that they have made reasonable attempts to obtain three competitive tenders for all work in excess of £25,000.

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

S1300 Title

S1301 Marking
There are no requirements for marking Equipment, Plant and Materials which are outside the Working Area, except where title is transferred to, or is vested in, the *Client*.

S1302 Materials from Excavation and demolition
In the event that ground breaking operations uncover remains that could be of archaeological interest, and an archaeologist is not in attendance on site, the following actions will be taken:

- All *works* will cease within the vicinity of the find;
- The *Contractor* will inform the *Project Manager* as soon as practically possible;
- The County Authority Archaeological Officer will be informed by the *Contractor* of the find within 24 hours;
- Work will not re-commence within the vicinity of the find until agreement to do so has been reached with the Archaeological Officer;
- Any historical or archaeological finds are protected from further excavation or damage until the *Project Manager* agrees a way forward with the *Client*' and instructs the *Contractor* how to proceed.

Any archaeological finds shall remain the property of the Employer and if such finds are discovered the *Project Manager* will instruct the *Contractor* accordingly.

The *Contractor* is responsible for the removal and appropriate disposal of general waste and materials arising from excavation or demolition from the Working Area, in accordance with the SWMP and Scope.

S1400 Acceptance or procurement procedure (Options C and E)

NOT USED

S1500 Accounts and records (Options C and E)

S 1501 Additional Records
In addition to those stated in ECC clause 52.2, the *Contractor* keeps the following accounts and records:

- The *Contractor*'s senior representative on site shall attend a monthly progress meetings. At this meeting, the *Contractor* provides to the *Project Manager* a detailed written statement of all Equipment & personnel employed on the *works*, together with details of Equipment downtime, breakdowns, stoppages & accidents that occurred during the previous two weeks or any other details the *Project Manager* reasonably requests.

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

S 1502 Application for Payment / Invoice

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

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

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

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

S1600 Parent Company Guarantee and Performance Bond

S1601 Parent Company Guarantee (Option X4)
Not required

S1602 Form of performance bond (Option X13)
Not required.

S1700 *Client's* work specifications and drawings

S1701 *Client's* work specification

The *Contractor* is to design and construct the *works* in accordance with this Scope document and the *Client*'s Minimum Technical Requirements Version 12 December 2021.

S1702 Drawings

Outline design drawings for each section of flood defence /assets are provided in Appendix 1 of the Site Information.

The drawings represent the outline design which has been produced during the pre-construction Appraisal/Early Supplier Engagement phase. This outline design is provided as Site Information. The *Contractor* may propose alternative designs to satisfy the Scope.

S1703 Standards the *Contractor* will comply with

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

Ref	Report Name
LIT 13528	Minimum Technical Requirements Version 12, December 2021
LIT 13879	Minimum Technical Requirements for Landscape and Environmental Design (Version 2, dated February 2021)
LIT 14284	Whole Life (Construction) Carbon Planning Tool
300_10	SHE handbook for managing capital projects
LIT 16559	SHEW Code of Practice
LIT 17641	Employer's Information Requirements (BIM)
LIT 14200	Using our Corporate Identity - Signage

Appendix 1
BIM Protocol – Information Production and Integrated Delivery Plan

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:

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

Link to IDP:

https://portalak.asite.com/da/notification?action_id=413&nlid=1_7_2181011_11137382_53969224_17279504_0$$IJnelZ

See also Appendix 1 in Scope Folder

Appendix 2 - BIM Protocol – Exchange Information Requirements

See Appendix 2 in Scope Folder

Appendix 3
Flood Defence Levels

Asset Reference	Flood Defence Level (mAOD)
201L32	4.40
201L39	4.40
201L40	4.40

Appendix 4
Design Submission and Acceptance Procedure

See Appendix 4 in the Scope Folder

Appendix 5
Environmental Reports

See Appendix 5 in Scope Folder

- (Non-statutory) Environmental Report
- Environmental Technical Note
- Environmental Action Plan
- Ecology Technical Note
- WFD Assessment Addendum (Phase 3)
- Habitat Regulations Assessment
- Environmental Enhancements Opportunities (Drawing)
- CEEQUAL/BREEAM Scoping Note

Appendix 6
Minimum Technical Requirements

See Appendix 6 in Scope Folder

Appendix 7

Constructing a Better Environment, Safety, Health, Environment and Wellbeing (SHEW) Code of Practice (CoP)

See Appendix 7 in Scope Folder