



Framework: Collaborative Delivery Framework
Supplier: Ove Arup & Partners Ltd
Company Number: 01312453

Geographical Area: North East
Project Name: Blackhall Mill and Shotley Bridge Modelling
Project Number: [REDACTED]

Contract Type: Professional Service Contract
Option: Option E

Contract Number:

Stage: Pre_SOC

| Revision | Status | | Originator | | Reviewer | | Date |
|----------|--------|--|------------|--|----------|--|------|
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PROFESSIONAL SERVICE CONTRACT under the Collaborative Delivery Framework
CONTRACT DATA

Project Name Blackhall Mill and Shotley Bridge Modelling

Project Number [REDACTED]

- This contract is made on
between the *Client* and the *Consultant*
- This contract is made pursuant to the Framework Agreement (the "Agreement") dated 01st day of April 2019 between the *Client* and the *Consultant* in relation to the Collaborative Delivery Framework. The entire agreement and the following Schedules are incorporated into this Contract by reference
 - Schedules 1 to 22 inclusive of the Framework schedules are relied upon within this contract.
 - The following documents are incorporated into this contract by reference
2021-11-25 Blackhall Mill and Shotley Bridge Modelling v4

Part One - Data provided by the *Client*
Statements given in
all Contracts

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

| | | | |
|-------------|----------|--|----|
| Main Option | Option E | Option for resolving and avoiding disputes | W2 |
|-------------|----------|--|----|

- Secondary Options
- X2: Changes in the law
 - X9: Transfer of rights
 - X10: Information modelling
 - X11: Termination by the *Client*
 - X18: Limitation of liability
 - X20: Key Performance Indicators
 - V(UK)2: The Housing Grants, Construction and Regeneration Act 1996
 - V(UK)3: The Contracts (Rights of Third Parties) Act 1999
 - Z: *Additional conditions of contract*

The service is Undertake modelling to support and inform OBC development

The *Client* is Environment Agency

Address for communications Tyneside House
Skinnerburn Road
Newcastle upon Tyne
NE4 7AR

Address for electronic communications [REDACTED]

The *Service Manager* is [REDACTED]
Address for communications [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Address for electronic communications [REDACTED]

The Scope is in 2021-11-25 Blackhall Mill and Shotley Bridge v4

The *language of the contract* is English

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

The period for reply is 2 weeks

The *period for retention* is 6 years following Completion or earlier termination

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 Consultant's main responsibilities

| | |
|---|-----------------|
| The <i>key dates</i> and <i>conditions</i> to be met are | |
| <i>conditions</i> to be met | <i>key date</i> |
| 'none set' | 'none set' |
| 'none set' | 'none set' |
| 'none set' | 'none set' |
| The <i>Consultant</i> prepares forecasts of the total Defined Cost plus Fee and <i>expenses</i> at intervals no longer than | 4 weeks |

3 Time

| | |
|---|--------------------|
| The <i>starting date</i> is | 04 January 2022 |
| The <i>Client</i> provides access to the following persons, places and things | |
| access | <i>access date</i> |

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

The *completion date* for the whole of the *service* is 30 December 2022

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

4 Quality management

| | |
|---|----------|
| The period after the Contract Date within which the <i>Consultant</i> is to submit a quality policy statement and quality plan is | 4 weeks |
| The period between Completion of the whole of the <i>service</i> and the <i>defects date</i> is | 26 weeks |

5 Payment

| | |
|--|---|
| The <i>currency of the contract</i> is the £ sterling | |
| The <i>assessment interval</i> is | Monthly |
| The forecast of the Prices is | £92,723 05 |
| The <i>expenses</i> stated by the <i>Client</i> are as stated in Schedule 9 | |
| The <i>interest rate</i> is | 2.00% per annum (not less than 2) above the |
| Base | rate of the Bank of England |
| The locations for which the <i>Consultant</i> provides a charge for the cost of support people and office overhead are | All UK Offices |

6 Compensation events

These are additional compensation events

1. 'not used'
2. 'not used'
3. 'not used'
4. 'not used'
5. 'not used'

8 Liabilities and insurance

These are additional *Client's* liabilities

1. 'not used'
2. 'not used'
3. 'not used'

The minimum amount of cover and the periods for which the *Consultant* maintains insurance are

| EVENT | MINIMUM AMOUNT OF COVER | PERIOD FOLLOWING COMPLETION OF THE WHOLE OF THE <i>SERVICE</i> OR TERMINATION |
|---|---|---|
| The <i>Consultant's</i> failure to use the skill and care normally used by professionals providing services similar to the <i>service</i> | in respect of each claim, without limit to the number of claims | 12 years after Completion |

| | | |
|--|--|---------------------------------------|
| Loss of or damage to property and liability for bodily injury to or death of a person (not an employee of the <i>Consultant</i>) arising from or in connection with the <i>Consultant</i> Providing the Service | ██████████ in respect of each claim, without limit to the number of claims | 12 years after Completion |
| Death of or bodily injury to the employees of the <i>Consultant</i> arising out of and in the course of their employment in connection with the contract | <i>Legal minimum</i> in respect of each claim, without limit to the number of claims | <i>For the period required by law</i> |
| The <i>Consultant's</i> total liability to the <i>Client</i> for all matters arising under or in connection with the contract, other than the excluded matters is limited to | ██████████ | |

Resolving and avoiding disputes

| | |
|---|------------------------------------|
| The <i>tribunal</i> is litigation in the courts | |
| The <i>Adjudicator</i> is | 'to be confirmed' |
| Address for communications | 'to be confirmed' |
| Address for electronic communications | 'to be confirmed' |
| The <i>Adjudicator nominating body</i> is | The Institution of Civil Engineers |

Z Clauses

Z1 Disputes

Delete existing clause W2.1

Z2 Prevention

The text of clause 18 Prevention is deleted.

Delete the text of clause 60.1(12) and replaced by:

The *service* is affected by any of the following events

- War, civil war, rebellion, revolution, insurrection, military or usurped power;
- Strikes, riots and civil commotion not confined to the employees of the *Consultant* and sub consultants,
- Ionising radiation or radioactive contamination from nuclear fuel or nuclear waste resulting from the combustion of nuclear fuel,
- Radioactive, toxic, explosive or other hazardous properties of an explosive nuclear device,
- Natural disaster,
- Fire and explosion,
- Impact by aircraft or other aerial device or thing dropped from them.

Z3 Disallowed Costs

Add the following in second bullet of 11.2 (18) add:

(including compensation events with the Subcontractor, i.e. payment for work that should not have been undertaken).

Add the following additional bullets after 'and the cost of ' :

- Mistakes or delays caused by the *Consultant's* failure to follow standards in Scopes/quality plans
- Reorganisation of the *Consultant's* project team
- Additional costs or delays incurred due to *Consultant's* failure to comply with published and known guidance or document formats
- Exceeding the Scope without prior instruction that leads to abortive cost
- Re-working of documents due to inadequate QA prior to submission, i.e. grammatical, factual arithmetical or design errors
- Production or preparation of self-promotional material
- Excessive charges for project management time on a commission for secondments or full time appointments (greater than 5% of commission value)
- Any hours exceeding 8 per day unless with prior written agreement of the *Service Manager*
- Any hours for travel beyond the location of the nearest consultant office to the project unless previously agreed with the *Service Manager*
- Attendance of additional individuals to meetings/ workshops etc who have not been previously invited by the *Service Manager*
- Costs associated with the attendance at additional meetings after programmed Completion, if delay is due to *Consultant* performance
- Costs associated with rectifications that are due to *Consultant* error or omission
- Costs associated with the identification of opportunities to improve our processes and procedures for project delivery through the *Consultant's* involvement
- Was incurred due to a breach of safety requirements, or due 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

Z6 The Schedule of Cost Components

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

Delete existing clauses 54 and 93.4 and replace with:

54.7 The Project Manager assess the Contractor's share of the difference between the Aggregated Total of the Prices and the Aggregated Price for Work Done to Date. The difference is divided into increments falling within each of the share ranges. The limits of a share range are the Aggregated Price for Work Done to Date divided by the Aggregated Total of the Prices, expressed as a percentage. The Contractor's share equals the sum of the products of the increment within each share range and the corresponding Contractor's share percentage.

54.8 If the Aggregated Price for Work Done to Date is less than the Aggregated Total of the Prices, the Contractor is paid its share of the saving. If the Aggregated Price for Work Done to Date is greater than the Aggregated Total of the Prices, the Contractor pays its share of the excess.

54.9 If, prior to the Completion Date, the Aggregated Price for Work Done to Date exceeds 110% of the Aggregated Total of the Prices, the amount in excess of 110% of the Aggregated Total of the Prices is retained from the Contractor.

54.10 The Project Manager makes a preliminary assessment of the Contractor's share at Completion of the Whole of the works using forecasts of the final Aggregated Price for Work Done to Date and the final Aggregated Total of Prices. This share is included in the amount due following Completion of the whole of the works.

54.11 The Project Manager makes a final assessment of the Contractor's share, using the final Aggregated Price for Work Done to Date and the final Aggregated Total of the Prices. This share is included in the final amount due.

93.4 If there is a termination, the Project Manager assesses the Contractor's share after certifying termination. The assessment uses as the Aggregated Price for Work Done to Date the sum of

- the total of
 - o the Defined Cost which the Contractor has paid and
 - o which it is committed to pay for work done before terminationand
- the total of
 - o the Defined Cost which the Contractor has paid and
 - o which it is committed to payin the partner contract before the date the termination certificate is issued under this contract.

The assessment uses as the Aggregated Total of the Prices the sum of

- the total of
 - the lump sum price for each activity which has been completed and
 - a proportion of the lump sum price for each incomplete activity which is the proportion of the work in the activity which has been completedand
- the total of
 - the lump sum price for each activity which has been completed and
 - a proportion of the lump sum price for each incomplete activity which is the proportion of the work in the activity which has been completedin the partner contract before the date the termination certificate is issued under this contract.

Add:

- 11.2(37) The Aggregated Total of the Prices is sum of
 - the total of the Prices and
 - the total of the Prices in the partner contract

11.2(38) The Aggregated Price for Work Done to Date is the sum of

- the Price for Work Done to Date and/
 - the Price for Service Provided to Date in the partner contract.

Z23 Linked contracts

Issues requiring redesign or rework on this contract due to a fault or error of the *Consultant* will neither be an allowable cost under this contract or any subsequent contract, nor will it be a Compensation event under this contract or any subsequent contract under this project or programme.

Z24 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 *Service Manager's* certificate.

Delete existing clause 51.2 and replace with:

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 *Service 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

Z25 Risks and insurance

The *Consultant* is required to submit insurances annually as Clause Z4 of the Framework Agreement

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 X10: Information modelling

The period after the Contract Date within which the *Consultant* is to submit a first Information Execution Plan for acceptance is 2 weeks

OPTION X18: Limitation of liability

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

■■■■■■■■■■

The *Consultant's* liability to the *Client* for Defects that are not found until after the *defects date* is limited to

■■■■■■■■■■

The *end of liability* date is 6 years after the Completion of the whole of the *service*

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

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

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

term beneficiary

Part Two - Data provided by the Consultant

Completion of the data in full, according to the Options chosen, is essential to create a complete contract.

1 General

The Consultant is

Name

Address for communications

Address for electronic communications

The fee percentage is

Option E

The key persons are

Name (1)

Job

Responsibilities

Qualifications

Experience

Name (2)

Job

Responsibilities

Qualifications

Experience

Name (3)

Job

Responsibilities

Qualifications

Experience

Name (4)

Job

Responsibilities

Qualifications

Experience

Name (5)

Job

Responsibilities

Qualifications

Experience

Name (6)

Job

Responsibilities

Qualifications

Experience

Name (7)

Job

Responsibilities

Qualifications
Experience

The following matters will be included in the Early Warning Register

3 Time

The programme identified in the Contract Data is
to follow

Resolving and avoiding disputes

The *Senior Representatives* of the *Consultant* are

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

Address for electronic communications
[redacted]

Name (2)
Address for communications

Address for electronic communications

X10: Information Modelling

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

Contract Execution

Client execution

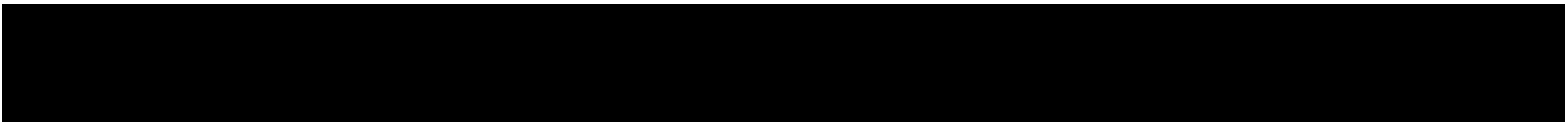
Signed Underhand by [PRINT NAME] for and on behalf of the Environment Agency

| | | |
|-------------|-------------|-------------|
| <div></div> | <div></div> | <div></div> |
| Signature | Date | Role |

Consultant execution

Signed Underhand by [PRINT NAME] for and on behalf of Ove Arup & Partners Ltd

| | | |
|-------------|-------------|-------------|
| <div></div> | <div></div> | <div></div> |
| Signature | Date | Role |



Environment Agency

NEC4 professional services contract (PSC)

Scope

Project / contract Information

| | |
|------------------------|---|
| Project name | Blackhall Mill and Shotley Bridge Modelling Study |
| Project 1B1S reference | |
| Contract reference | |
| Date | 07/12/2021 |
| Version number | 04 |
| Author | |

Revision history

| Revision date | Summary of changes | Version number |
|---------------|---|----------------|
| 01/06/2021 | Internal draft | 1 |
| 23/06/2021 | Update following Commercial Services Review | 2 |
| 25/11/2021 | Added the scope for Shotley Bridge | 3 |
| 07/12/2021 | Update following Commercial Services Review | 4 |

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

| Document Title | Reference |
|--|-----------|
| 2021-5_28_PSC_Blackhall Mill Scope_V2.pdf (supplied in Appendix) | LIT 17616 |
| 2021-8_19_PSC_Shotley Bridge_V5.pdf | LIT 17616 |

| | |
|--|-----------|
| NEC4 Minimum Technical Requirements for Modelling_v5.0 | LIT 18686 |
| Minimum Technical Requirements | LIT 13258 |

Details of the services

Details of the *services* are:

1. Objective

This project will improve our understanding of the flood risk from the River Derwent at Shotley Bridge and from the River Derwent and Blackhall Mill Race watercourse at Blackhall Mill. This will be achieved by developing a new hydraulic model for Shotley Bridge and updating the current hydraulic model for Blackhall Mill. This document details specific overarching project management arrangements to be applied to the project and complements the Technical Scopes which details the technical service required for the project (2021-5_28_PSC_Blackhall Mill Scope.pdf and 2021-8_19_PSC_Shotley Bridge_V5.pdf). The work must be completed by July 2022.

For the community of Shotley Bridge, there is limited fluvial flood history with the main source of flood risk thought to be from the River Derwent overtopping its banks. Our current understanding of flood risk at Shotley Bridge is therefore informed by our published flood zones which were created using generalised JFlow modelling. This modelling is now out of date and there are more advanced modelling techniques which can be utilised to improve our understanding of flood risk. A new hydraulic model is therefore required to provide more detailed understanding of flood risk from the River Derwent at Shotley Bridge. Once this model is developed, a decision on future investment requirements will be taken.

The existing hydraulic model for Blackhall Mill was developed in 2014-15 to provide an improved understanding of flood risk from the River Derwent and the Blackhall Mill Race watercourse and one objective of this project is to update the hydraulic model. The update is intended to build on this understanding and improve suitability of the model for use in a scheme appraisal for an Outline Business Case (OBC).

Tasks include: data review, site visit, modelling method statements, survey specification and collection, comprehensive hydrological review, provision of a new calibrated and verified hydraulic model, provision of hydrology and model reports, provision of GIS outputs and an assessment of the existing flood warning and forecasting provision and recommendations for improvement.

2. Outcome Specification

The project technical service and outputs are detailed in the accompanying 2021-5_28_PSC_Blackhall Mill Scope.pdf, 2021-8_19_PSC_Shotley Bridge_V5.pdf and NEC4 Minimum Technical Requirements for Modelling_v5.0.xls. The *Consultant* shall undertake and complete the key tasks and those identified in the accompanying scope documents:

1. The *Consultant* shall undertake one site visit (2 people, 1 day) to each site; Blackhall Mill and Shotley Bridge. The *Client* will facilitate these visits and arrange for appropriate *Client* staff to provide local knowledge. If the *Consultant* needs to visit areas that do not have public access, they must discuss this in advance with the *Client*. A warranted officer may need to accompany the *Consultant* on private land. The site visit should be used to understand the local flood flow pathways and flood history.
2. The site visits should be used to understand the local flood flow pathways and flood history. The *Consultant* will also use the site visits to review existing topographic data

- and make recommendations in terms of suitability and define additional survey requirements.
3. Once survey requirements and any other new data requirements have been agreed with the *Client*, the *Consultant* will be responsible for procuring and managing the acquisition of this data. Survey quotes will be reviewed by the *Client*.
 4. The *Consultant* will undertake a desktop review of the data which has been collected and provided by the *Client* as defined in the "Project Data Register". Commentary and recommendations from this review shall be documented in Hydrology and Modelling Method Statements produced as part of this commission.
 5. The *Consultant* shall provide clear recommendations on required activities to build the new hydraulic model for Shotley Bridge and update the existing hydraulic model for Blackhall Mill and derive inflows for both study areas in line with Environment Agency hydrology and modelling guidance for acceptance by the *Client*. Please refer to the LIT 13528 Minimum Technical Requirements for details.
 6. The *Consultant* shall produce a new hydraulic model for Shotley Bridge and an updated hydraulic model for Blackhall Mill for acceptance by the *Client*.
 7. The *Consultant* shall produce flood warning improvements in accordance with Operational Instruction 137_05 Flood Warning Levels of Services and OI 55_07 Threshold Setting in Flood Incident Management, for acceptance by the *Client*.

3. Constraints on how the *Consultant* provides the services

1. The *Consultant* shall only carry out work directly associated to provide the service as set out in the outcome specification above.
2. The *Consultant* is to report monthly on tasks they plan to do and tasks they have undertaken and time to be charged for that month as detailed in the *Client's* NEC4 Professional Services Contract.
3. The *Consultant* shall maintain close contact with the *Client* in order that their actions reflect the *Client's* objectives.
4. The *Consultant* shall notify the *Client* of any changes from the Scope, and also if there is any detrimental change to any of the following aspects of the Contract; time, cost and quality. The *Consultant* shall:
 - I. cease all work, howsoever arising, associated with the task
 - II. await the *Client's* written instruction on how to proceed
5. Data held by the *Client* that is relevant to the project will be collected by the *Client* and provided directly to the *Consultant*.

4. Standards to be achieved


4.1 Health and Safety

Health and Safety is the number one priority of the *Client*. The *Consultant* will promote and adopt safe working methods and shall strive to work in a safe manner.

5. Requirements of the programme

1. The *Consultant* shall provide a detailed programme in a format (pdf) agreed with the *Client*, meeting all requirements of Clause 31 of the conditions of contract. The programme must show critical path activities, gateway, risk buffers and activities

requiring *Client* input, for example review periods and accelerated scheme input. The programme shall comply with the requirement of Clause 31.

2. An initial compliant Clause 31 programme shall be provided for the project start up meeting and this will be updated monthly, with actual and forecast progress against the last Accepted Programme. The programme shall cover all the activities to be undertaken by the *Consultant* to deliver the study. Include all major project and modelling milestones. The *Consultant* should set milestones within the programme to agree key elements with the Client e.g. final scenarios to be assessed in case these have changed since the project scoping phase. milestones include, but are not limited to:
 - a. Start Up Meeting
 - b. Site Visit
 - c. Data Review
 - d. Survey Specification
 - e. Survey Procurement
 - f. Hydraulic Modelling Methodology
 - g. Hydrology Method Statement and Interim Hydrology Report
 - h. Hydrological Assessment & Hydrometric Review Sign Off
 - i. Shotley Bridge Hydraulic Model Build and Blackhall Mill Fluvial Model Update
 - j. Model Calibration
 - k. Design Runs
 - l. 
 - m. Baseline Model Review
 - n. Draft Model and Deliverables Review
 - o. Final Model and Deliverables Review
 - p. Model Handover
 - q. Project Closure
3. The *Consultant* shall allow 15 working days for the *Client* to review deliverables.
4. The *Consultant* allow 2 weeks for the *Client* to prepare any notice of entries required for visits and surveys. When the proposed survey timescales are known, adequate notice must be given to the *Client* if a Warranted Officer is required to attend site to take entry.
5. The *Consultant* is to report monthly on tasks they plan to do and tasks they have undertaken and time to be charged for that month as detailed in the *Clients* NEC4 Professional Services Contract.

6. Attend regular progress meetings (monthly in this case) and handover meetings as required by the programme.

6. Services and other things provided by the *Client*

1. All of the data listed as being supplied to the *Consultant* as part of this study remains the Intellectual Property of the *Client*.
2. Data held by the *Client* that is relevant to the project will be collected by the *Client* and provided directly to the *Consultant*.
3. The *Client* is responsible for the accuracy & sufficiency of existing data owned by the *Client*. The *Client* will only cover the costs of sourcing new data, if existing data is proven to be incomplete or to contain mistakes or errors.
4. The *Consultant* is responsible for any new data requirements. The *Consultant* is to scope, procure and manage the acquisition of any new surveys.
5. The data custodian for project deliverables from this commission will be the area PSO team.
6. Licences for LiDAR Data, Ordnance Survey mapping, model survey, hydrometric and historical data will be provided to the *Consultant* upon award of this commission.
7. All model and survey information will be provided to the *Consultant* according to *Client* data security policy. It is expected that once the commission is completed, the original data sent to the *Consultant* which is classed as commercially sensitive, is returned following the *Client* data security policy.
8. Timesheets as normally utilised by the *Consultants* shall be submitted with fee notes unless otherwise agreed with the *Client's* project manager. Electronic submissions would be acceptable
9. Payment is subject to the procedure agreed in or under the framework.
10. The quality management system complies with the requirements of ISO9001 and ISO14001.
11. The *Consultant* shall use the specifications and guidance included in NEC4 Minimum Technical Requirements for Modelling_v5.0.xls.