



Framework: Mapping & Modelling Framework
Supplier: Jeremy Benn Associates Ltd
Company Number: 03246693

Geographical Area: North East
Project Name: Barnard Castle Flood Risk Mapping Study
Project Number: ENV0004301C

Contract Type: Professional Service Contract
Option: Option C

Contract Number: project_33713

Stage: All_Work_Types

Revision	Status	Originator	Reviewer	Date
0.1	Superseded			30/07/2021
0.2	Superseded			06/08/2021
0.3	Superseded			11/08/2021
0.3.1	Live			27/08/2021

PROFESSIONAL SERVICE CONTRACT under the Mapping and Modelling Framework CONTRACT DATA

Project Name Barnard Castle Flood Risk Mapping Study

Project Number ENV0004301C

This contract is made on 05/10/2021
between the *Client* and the *Consultant*

This Contract is made pursuant to the Framework Agreement (the "Agreement") dated 16th day of May 2019 between the *Client* and the *Consultant* in relation to the NGSA Mapping and Modelling Support Framework. The entire Agreement and the following schedules are incorporated into this Contract by reference

- Schedules 1 to 22 inclusive
- The following documents are incorporated into this contract by reference
River_Tees_Barnard_Castle_Scope_v3

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 C

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

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 *service is* *Hydraulic modelling of the River Tees between Barnard Castle and Piercebridge and all associated GIS, mapping, hydrology*

The *Client* is *Environment Agency*

Address for communications *Horizon House
Deanery Road
Bristol
BS1 5AH*

Address for electronic communications

The *Service Manager* is

Address for communications

Address for electronic communications

The *Scope* is in
River_Tees_Barnard_Castle_Scope_v3

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 *key dates* and *conditions* to be met are
conditions to be met

'none set'
'none set'
'none set'

key date
'none set'
'none set'
'none set'

The *Consultant* prepares forecasts of the total Defined Cost plus Fee and *expenses* at intervals no longer than

4 weeks

3 Time

The *starting date* is 15 October 2021

The *Client* provides access to the following persons, places and things
access date

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

The *completion date* for the whole of the *service* is 12 August 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 *Consultant* is to submit a quality policy statement and quality plan is 4 weeks

The period between Completion of the whole of the *service* and the *defects date* is 26 weeks

5 Payment

The *currency of the contract* is the £ sterling

The *assessment interval* is Monthly

The *expenses* stated by the *Client* are as stated in Schedule 9

The *interest rate* is 2.00% per annum (not less than 2) above the
Base rate of the Bank of England

The locations for which the *Consultant* provides a charge for the cost of support people and office overhead are All UK Offices

The *Consultant's share percentages* and the *share ranges* are
share range
less than 80 %
from 80 % to 120 %
greater than 120 %
Consultant's share percentage
0 %
50 %
100 %

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	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>	£ 5 Million in respect of each claim, without limit to the number of claims	12 Years
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>) from or in connection with the <i>Consultant</i> Providing the Service	£ 5 Million in respect of each claim, without limit to the number of claims	12 Months
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	Which ever is the greater of £5m or the amount required by law in respect of each claim, without limit to the number of claims	For the period required by law
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 limited to		£ 5 Million

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 are 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 sub contractor, 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

Z4 Share on termination

Delete existing clause 93.3 and 93.4 and replace with:

92.3 In the event of termination in respect of a contract relating to services there is no *Consultant's* share'

Z6 The Schedule of Cost Components

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

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* approval of a fee note.

Delete existing clause 51.2 and replace with:

51.2 Each certified payment is made within one week after the paying Party receives an invoice from the other Party and

If a certified payment is late, 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

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 £1,000,000

The *Consultant's* liability to the *Client* for Defects that are not found until after the *defects date* is limited to £5,000,000

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

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

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

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

term	<i>beneficiary</i>
Any	None

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

Jeremy Benn Associates Ltd

Address for communications

1 Broughton Park Old Lane North
Broughton
Skipton
North Yorkshire
BD23 3FD

Email address

The subcontract fee percentage is

Option C

The key persons are

Name (1)

Job

Responsibilities

Qualifications

Experience

The key persons are

Name (2)

Job

Responsibilities

Qualifications

Experience

The key persons are

Name (3)

Job

Responsibilities

Qualifications

Experience

The key persons are

Name (4)

Job

Responsibilities

Qualifications

Experience

The key persons are

Name (5)

Job

Responsibilities

Qualifications

Experience

The key persons are

Name (6)

Job

Responsibilities

Qualifications

Experience

The key persons are

Name (7)

Job

Responsibilities

Qualifications

Experience

The following matters will be included in the Early Warning Register

Delay in obtaining data from client

Delay to survey or site work, or inability to collect sufficient data

Delay to obtaining review comments from client

Inconsistencies/uncertainty in data

5 Payment

The *activity schedule* is

Q21-1487 Barnard Castle ActivityShedule_v1.0.pdf

The tendered total of the Prices is

£42,039.00

Resolving and avoiding disputes

The *Senior Representatives* of the *Consultant* are

Name (1)

Address for communications

Address f

Name (2)

Address for communications

JBA Consulting

Address for ele

X10: Information Modelling

The information execution plan identified in the Contract Data is

TBC

Contract Execution

Client execution

for and on behalf of the Environment Agency

Signature

Date

Role

Consultant execution

Signed Underhand by [PRINT NAME]

for and on behalf of Jeremy Benn Associates Ltd

Signature

Date

Role



Environment Agency

NEC4 professional service contract (PSC)

Scope

Project / contract Information

Project name	Barnard Castle Flood Risk Mapping Study
Project 1B1S reference	ENV0004301C
Contract reference	project_33713
Date	11/08/2021
Version number	3.0
Author	

Revision history

Revision date	Summary of changes	Version number
22/07/2021	First issue	1.0
04/08/2021	PSC Scope version amended	2.0
04/08/2021	DgC Review	2.0
06/08/2021	Clarifications added	3.0

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 service is to be compliant with the version of the Minimum Technical Requirements.

Document	Document Title	Version No	Issue Date
LIT 18686	NEC4 Minimum Technical Requirements for Modelling	3.1	12/07/2021
LIT 17616	2021-08_24_PSC_Barnard Castle_V6	6	04/08/2021

Details of the service

Details of the service are:

1. Objective

This project will aim to improve our understanding of flood risk along the upper River Tees. The service will focus on the communities at risk of flooding from the River Tees from Barnard Castle to Gainford and Piercebridge downstream. This Scope is supplemented with further technical details specified in the document 2021-08_24_PSC_Barnard Castle_V6.

Please note, we are aware of additional flood risk to Piercebridge from the Piercebridge Beck. Assessing this risk is not included in this Scope.

There is limited flood history for these communities with the main source of flood risk thought to be from the River Tees overtopping its banks. Our current understanding of flood risk between Barnard Castle and Piercebridge 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 Tees between Barnard Castle and Piercebridge and the Piercebridge Beck.

Tasks include: data review, site visit, modelling method statements, survey specification and commissioning, 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.

As outlined in the Business Case, results from this modelling will help to improve our understanding of flood risk, flood mapping and warning for key communities along the River Tees between Barnard Castle and Piercebridge. The *Consultant* should seek clarity with the *Client* should there be any uncertainty around elements that are to be completed.

2. Outcome Specification

The *Consultant* shall undertake and complete the tasks as set out below further supporting information is included in the Appendix 1 in the document titled 2021-08_24_PSC_Barnard Castle_V6:

1. The *Consultant* shall undertake one site visit (maximum 2 people, 1 day). The *Client* will facilitate this visit and arrange for appropriate *Client* staff to accompany the *Consultant* 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.
2. The site visit shall be used to understand the local flood flow pathways and flood history. The *Consultant* will also use the site visit 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 hydraulic model and derive inflows 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 acceptance by the *Client*.
7. The *Consultant* shall produce flood warning improvement deliverables in accordance with Operational Instruction 137_05 Flood Warning Levels of Services and OI 55_07 Threshold Stetting in Flood Incident Management, for acceptance by the *Client*.

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

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 task 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 proposed 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. The programme shall comply with the requirement of Clause 31.
2. A baseline programme shall be provided for the project start up meeting and this will be updated monthly, with actual and forecast progress against the baseline. The programme shall cover all the activities to be undertaken by the *Consultant* to deliver the study. Include all major project and modelling milestones. 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. Model Build
 - i. Calibration
 - j. Design Runs
 - k. Flood Warning
 - l. Reporting
3. It is acknowledged that the *period for reply* outlined in the contract is two weeks, however please allow for 15 working days for the *Client* to review items F – L outlined above. Provision of 2 weeks' notice of submission for review is required.

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. 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.
- 3. The *Consultant* is responsible for any new data requirements. The *Consultant* is to scope, procure and manage the acquisition of any new surveys.
- 4. The data custodian for project deliverables from this commission will be the *Client's* [REDACTED] team.
- 5. Licences for LiDAR Data, Ordnance Survey mapping, model survey, hydrometric and historical data will be provided to the *Consultant* upon award of this commission.
- 6. All model and survey information will be provided to the *Consultant* according to *Client* data security policy. 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.
- 7. Timesheets as normally utilised by the *Consultant* shall be submitted with applications for payment unless otherwise agreed with the *Service Manager*. Electronic submissions would be acceptable
- 8. Payment is subject to the procedure agreed in or under the framework.
- 9. The quality management system complies with the requirements of ISO9001 and ISO14001.
- 10. The *Consultant* shall use the specifications and guidance included in LIT 13528 Minimum Technical Requirements.

7. Appendix 1

2021-08_24_PSC_Barnard Castle_V6