



Environment  
Agency

# NEC4 Engineering and Construction

## Short Contract

FCRM Operational Framework – SE Hub

**A contract between**

**The Environment Agency  
Horizon House  
Deanery Road  
Bristol  
BS1 5AH**

**And**

**Breheny Civil Engineering Ltd**

**For**

**Maddle Farm Borehole Replacement**

**Contract Forms**

- **Contract Data**
- **The *Contractor's* Offer and *Client's* Acceptance**
- **Price List**
- **Scope**
- **Site Information**

# Contract Data

## The *Client's* Contract Data

	The <i>Client</i> is	
Name	Environment Agency	
Address for communications	Kings Meadow House, Kings Meadow Road, Reading, Berkshire. RG1 8DQ	
Address for electronic communications	defra.bravosolution.co.uk	
The <i>works</i> are	To drill a new dual aquifer observation borehole	
The <i>sites</i> are	Maddle Farm OBH	
The <i>starting date</i> is	18/10/2021	
The <i>completion date</i> is	31/03/2022	
The <i>delay damages</i> are	N/A	Per day
The <i>period</i> for reply is	2	weeks
The <i>defects date</i> is	52	weeks after Completion
The <i>defects correction period</i> is	4	weeks
The <i>assessment day</i> is	the last working day	of each month
The <i>retention</i> is	nil	%
The United Kingdom Housing Grants, Construction and Regeneration Act (1996) <b>does</b> apply		
The <i>Adjudicator</i> is :		
In the event that a first dispute is referred to adjudication, the referring Party at the same time applies to the Institution of Civil Engineers to appoint an <i>Adjudicator</i> . The application to the Institution includes a copy of this definition of the <i>Adjudicator</i> . The referring Party pays the administrative charge made by the Institution. The person appointed is also <i>Adjudicator</i> for later disputes.		

# Contract Data

## The *Client's* Contract Data

The interest rate on late payment is		% per complete week of delay.
--------------------------------------	--	-------------------------------

Insert a rate only if a rate less than 0.5% per week of delay has been agreed.

For any one event, the liability of the <i>Contractor</i> to the <i>Client</i> for loss of or damage to the <i>Client's</i> property is limited to	£100,000
--	----------

The <i>Client</i> provides this insurance	None
---	------

### Insurance Table

Event	Cover	Cover provided until
Loss of or damage to the <i>works</i>	The replacement cost	The <i>Client's</i> certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials	The replacement cost	The defects Certificate has been issued
The <i>Contractor's</i> liability for loss of or damage to property (except the <i>works</i> , Plant and Materials and Equipment) and for bodily injury to or death of a person (not an employee of the <i>Contractor</i> ) arising from or in connection with the <i>Contractor's</i> Providing the <i>Works</i>	Minimum £5,000,000 in respect of every claim without limit to the number of claims	
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law	
Failure of the <i>Contractor</i> to use the skill and care normally used by professionals providing <i>works</i> similar to the <i>works</i>	Minimum £5,000,000 in respect of every claim without limit to the number of claims	6 years following Completion of the whole of the <i>works</i> or earlier termination

The <i>Adjudicator nominating body</i> is	The Institution of Civil Engineers
---	------------------------------------

The <i>tribunal</i> is	litigation in the courts
------------------------	--------------------------

The *conditions of contract* are the NEC4 Engineering and Construction Short Contract June 2017 and the following additional conditions

**Only enter details here if additional conditions are required.**

Z1.0	Sub-contracting
Z1.1	The <i>Contractor</i> submits the name of each proposed subcontractor to the <i>Client</i> for acceptance. A reason for not accepting the subcontractor is that their appointment will not allow the <i>Contractor</i> to Provide the <i>Works</i> . The <i>Contractor</i> does not appoint a proposed subcontractor until the <i>Client</i> has accepted them.
Z1.2	Payment to subcontractors and suppliers will be no more than 30 days from receipt of invoice.
Z2.0	Environment Agency as a regulatory authority
Z2.1	The Environment Agency's position as a regulatory authority and as <i>Client</i> under the contract is separate and distinct. Actions taken in one capacity are deemed not to be taken in the other.
Z2.2	Where statutory consents must be obtained from the Environment Agency in its capacity as a regulatory authority, the <i>Contractor</i> is responsible for obtaining these and paying fees (unless stated otherwise in

	the Scope). The <i>Client's</i> acceptance of a tender and the <i>Client's</i> instruction or variation of the works does not constitute statutory approval or consent.
Z2.3	An action by the Environment Agency as regulatory authority is not in its capacity as <i>Client</i> and is not a compensation event.
Z3.0	Confidentiality & Publicity
Z3.1	The <i>Contractor</i> may publicise the works only with the <i>Client's</i> written agreement.
Z4.0	Correctness of Site Information
Z4.1	Site Information about the ground, subsoil, ducts, cables, pipes and structures is provided in good faith by the <i>Client</i> but is not warranted correct. The <i>Contractor</i> checks the correctness of any such Site Information they rely on for the purpose of Providing the Works.
Z5.0	The Contracts (Rights of Third Parties) Act 1999
Z5.1	For the purposes of the Contracts (Rights of Third Parties) Act 1999, nothing in this contract confers or purports to confer on a third party any benefit or any right to enforce a term of this contract.
Z6.0	Design
Z6.1	Where design is undertaken, it is the obligation of the <i>Contractor</i> to ensure the use of skill and care normally used by professionals providing similar design services.
Z6.2	The <i>Contractor</i> designs the parts of the works which the Scope states they are to design.
Z6.3	The <i>Contractor</i> submits the particulars of their design as the Scope requires to the <i>Client</i> for acceptance. A reason for not accepting the <i>Contractor's</i> design is that it does not comply with either the Scope or the applicable law.  The <i>Contractor</i> does not proceed with the relevant work until the <i>Client</i> has accepted this design.
Z6.4	The <i>Contractor</i> may submit their design for acceptance in parts if the design of each part can be assessed fully.
Z7.0	Change to Compensation Events
Z7.1	Delete the text of Clause 60.1(11) and replace by: The works are affected by any one of the following events <ul style="list-style-type: none"> <li>• War, civil war, rebellion revolution, insurrection, military or usurped power</li> <li>• Strikes, riots and civil commotion not confined to the employees of the <i>Contractor</i> and sub-contractors</li> <li>• Ionising radiation or radioactive contamination from nuclear fuel or nuclear waste resulting from the combustion of nuclear fuel</li> <li>• Radioactive, toxic, explosive or other hazardous properties of an explosive nuclear device</li> <li>• Natural disaster</li> <li>• Fire and explosion</li> <li>• Impact by aircraft or other device or thing dropped from them</li> </ul>
Z8.0	Framework Agreement
Z8.1	The <i>Contractor</i> shall ensure at all times during this contract it complies with all the obligations and conditions of the Framework Agreement made with the <i>Client</i> .
Z9.0	Termination
Z9.1	Delete the text of Clause 92.3 and replace with: If the <i>Contractor</i> terminates for Reason 1 or 6, the amount due on termination also includes 5% of any excess of a forecast of the amount due at Completion had there been no termination over the amount due on termination assessed as for normal payments.
Z10.0	Data Protection
Z10.1	The requirements of the Data Protection Schedule shall be incorporated into this contract
Z11.0	Liabilities and Insurance
Z11.1	Civil data protection claims and regulatory fines for breaches of Data Protection Legislation are excluded from any limit of liability stated.
Z12.0	Packaging
Z12.4	<del>For contracts containing packages of projects the <i>Client's</i> Contract Data, Scope and Site Information particular to an individual project is contained within its Site Specific Pack</del>
Z13.1	Additional Compensation Event COVID-19 Managing and mitigating the impact of Covid 19 and work in accordance with Public Health England guidance, as may vary from time to time, from 1st July to 31st October 2021.
Z30.0	Material Price Volatility  The Client recognises the ongoing pricing uncertainty in relation to materials for the period from 1 July 2021 to 30 June 2022 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	<p>Defined terms</p> <p>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.</p> <p>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.</p> <p>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.</p>																																							
Z30.2	<p>Price Volatility Provision</p> <p>Through a Compensation Event the Client shall pay the PVP. PVP is calculated as:</p> <p style="text-align: center;">Assessment x MF x L = PVP</p>																																							
Z30.3	<p>Price Increase</p> <p>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.</p>																																							
Z30.4	<p>Compensation Events</p> <p>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 2022 period compensation event.</p> <table border="1"><thead><tr><th>Assessment Date</th><th>Defined Cost?</th><th>Forecasted Cost?</th></tr></thead><tbody><tr><td>31<sup>st</sup> Jul 21</td><td>In period costs only</td><td>No</td></tr><tr><td>31<sup>st</sup> Aug 21</td><td>In period costs only</td><td>No</td></tr><tr><td>30<sup>th</sup> Sept 21</td><td>In period costs only</td><td>No</td></tr><tr><td>31<sup>st</sup> Oct 21</td><td>In period costs only</td><td>No</td></tr><tr><td>30<sup>th</sup> Nov 21</td><td>In period costs only</td><td>No</td></tr><tr><td>31<sup>st</sup> Dec 21</td><td>In period costs only</td><td>No</td></tr><tr><td>31<sup>st</sup> Jan 22</td><td>In period costs only</td><td>No</td></tr><tr><td>28<sup>th</sup> Feb 22</td><td>In period costs only</td><td>No</td></tr><tr><td>31<sup>st</sup> Mar 22</td><td>In period costs only</td><td>No</td></tr><tr><td>30<sup>th</sup> Apr 22</td><td>In period costs only</td><td>No</td></tr><tr><td>31<sup>st</sup> May 22</td><td>In period costs only</td><td>No</td></tr><tr><td>30<sup>th</sup> Jun 22</td><td>In period costs only</td><td>Forecasted costs for remainder of contract</td></tr></tbody></table> <p>The Defined Cost for compensation events is assessed using</p> <ul style="list-style-type: none"><li>- the Defined Cost at base date levels for amounts calculated from rates stated in the Contract Data for People and Equipment and</li></ul>	Assessment Date	Defined Cost?	Forecasted Cost?	31 <sup>st</sup> Jul 21	In period costs only	No	31 <sup>st</sup> Aug 21	In period costs only	No	30 <sup>th</sup> Sept 21	In period costs only	No	31 <sup>st</sup> Oct 21	In period costs only	No	30 <sup>th</sup> Nov 21	In period costs only	No	31 <sup>st</sup> Dec 21	In period costs only	No	31 <sup>st</sup> Jan 22	In period costs only	No	28 <sup>th</sup> Feb 22	In period costs only	No	31 <sup>st</sup> Mar 22	In period costs only	No	30 <sup>th</sup> Apr 22	In period costs only	No	31 <sup>st</sup> May 22	In period costs only	No	30 <sup>th</sup> Jun 22	In period costs only	Forecasted costs for remainder of contract
Assessment Date	Defined Cost?	Forecasted Cost?																																						
31 <sup>st</sup> Jul 21	In period costs only	No																																						
31 <sup>st</sup> Aug 21	In period costs only	No																																						
30 <sup>th</sup> Sept 21	In period costs only	No																																						
31 <sup>st</sup> Oct 21	In period costs only	No																																						
30 <sup>th</sup> Nov 21	In period costs only	No																																						
31 <sup>st</sup> Dec 21	In period costs only	No																																						
31 <sup>st</sup> Jan 22	In period costs only	No																																						
28 <sup>th</sup> Feb 22	In period costs only	No																																						
31 <sup>st</sup> Mar 22	In period costs only	No																																						
30 <sup>th</sup> Apr 22	In period costs only	No																																						
31 <sup>st</sup> May 22	In period costs only	No																																						
30 <sup>th</sup> Jun 22	In period costs only	Forecasted costs for remainder of contract																																						

	- 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.
--	---

# Contract Data

## The *Contractor's* Contract Data

		The <i>Contractor</i> is
Name	Breheny Civil Engineering Ltd	
Address for communications		
Address for electronic communications	<div></div>	
The <i>fee</i> percentage is	As per FCRM Framework Rates	%
The <i>people</i> rates are		
category of person	unit	rate
The <i>published list of Equipment</i> is		As per FCRM Framework Rates
The <i>percentage for adjustment for Equipment</i> is		As per FCRM Framework Rates

# Contract Data

## The *Contractor's* Offer and *Client's* Acceptance

The *Contractor* offers to Provide the Works in accordance with these *conditions of contract* for an amount to be determined in accordance with these *conditions of contract*.

The offered total of the Prices is	£169,156.00
------------------------------------	-------------

	Enter the total of the Prices from the Price List.
--	--

Signed on behalf of the *Contractor*

Name	
------	--

Position	EA SE Framework Manager
----------	-------------------------

Signature	
-----------	--

Date	12 July 2021
------	--------------

The *Client* accepts the *Contractor's* Offer to Provide the Works

Signed on behalf of the *Client*

Name	
------	--

Position	Senior Commercial Officer
----------	---------------------------

Signature	
-----------	--

Date	14 Oct 2021
------	-------------



# Price List

Entries in the first four columns in this Price List are made either by the *Client* or the tenderer.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price Column only: the Unit, Quantity and rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters the rate which is then multiplied by the expected quantity to produce the Price, which is also entered.

Item Number	Description	Unit	Quantity	Rate	Price
1	Remove and dispose of the old concrete OBH kiosk	SUM			Included
2	<b>Decommission the old OBH</b> in accordance with the Environment Agency guidance: <i>Good practice for decommissioning redundant boreholes and wells</i> – October 2012 and inform the British Geological Survey.	SUM			£ 9,171.00
3	<b>Health &amp; Safety requirements</b> Risk assessment & method statement document, Health & Safety and Environmental assessment. Delivery of an H&S File for the completed works	SUM			£ 5,228.00
4	<b>Mobile Welfare Provision</b> As per CDM 2015.	SUM			£ 19,070.00
5	<b>Drill the new dual aquifer borehole</b> , to be 250mm diameter, 122m deep through Chalk and Greensand.	SUM			£ 126,125.00
6	<b>Supply of 75mm diam uPVC pipe</b> (approx. 120m long) – see 'Proposed Borehole Construction' drawing	SUM			Included
7	<b>Supply an impermeable flange/concrete seal</b> (to separate the Chalk from the Upper Greensand.) – see 'Proposed Borehole Construction' drawing	ITEM	1		Included
8	<b>Supply a stainless steel kiosk (1500mm x 700mm x 700mm)</b> – see 'Proposed Kiosk Construction' drawing	ITEM	1		£ 3,016.00
9	<b>Installation of an inner 75mm diam uPVC pipe</b> to feed the Upper Greensand aquifer through the impermeable flange/concrete seal at approx. 111m deep ( <u>to be determined by the contractor through the provision of a detailed geological log</u> ) so to separate the Chalk from the Upper Greensand. – see 'Proposed Borehole Construction' drawing	SUM			Included
10	<b>Installation of the borehole headworks</b> – see 'Proposed Borehole Construction' drawing Including concrete risers, 10m of plain liner (250mm diam), stainless steel kiosk (1500mm	SUM			£ 3,639.00

	x 700mm x 700mm) installed on top of a concrete plinth.				
11	<b>Provide a detailed geological log and record of the new borehole. To be submitted to the Environment Agency and the British Geological Survey.</b>	SUM			<b>£ 2,492.00</b>
12	Carbon Calculator	SUM			<b>£415.00</b>
<b>The total of the Prices</b>					<b>£169,156.00</b>

The method and rules used to compile the Price List are	
Civil Engineering Standard Method of Measurement 4 <sup>th</sup> edition (CESMM4) as per the Framework Price Workbook.	

# Scope

## 1. Description of the *works*

**Give a detailed description of what the *Contractor* is required to do and of any work the *Contractor* is to design.**

The requirement entails a new observation borehole to replace the existing Maddle Farm OBH Chalk and Upper Greensand groundwater level monitoring site (10m away) which is blocked.

A new dual aquifer observation borehole shall be drilled to 122m below ground level (into the Upper Greensand). The borehole will require an inner and out pipe to feed the two aquifers.

- A 75mm diam uPVC dipping tube that feeds into the Upper Greensand (approx. 122 m depth), through an impermeable flange/concrete seal at approx. 111m deep (to be determined by the contractor through the provision of a detailed geological log) so to separate the Chalk from the Upper Greensand.
- The tube penetrating the Upper Greensand will run down inside the large outer chalk borehole (250mm diam), which will have a plain lining for approx. 10m deep from the surface (similar to the original observation borehole).

The headworks (see 'Proposed Borehole Construction' drawing) will comprise of:

- concrete risers surrounding the outer 250mm diam pipe riser,
- pipe flange to be level with the ground,
- stainless steel kiosk (1500mm x 700mm x 700mm) installed on top of a concrete plinth.

The *Contractor* must prepare a detailed Construction Phase Plan (CPP) in accordance with the SHEW Code of Practice and any other information critical to be produced and accepted by the *Client* before commencement on site. Note: A suitably developed Construction Phase Plan must be issued for approval not less than 10 days prior to planned mobilisation.

### Records

- A detailed geological log and record of the new borehole will be required to be submitted to the Environment Agency and the British Geological Survey.
- Delivery of an H&S File for the completed works

### Decommission of the old observation borehole.

This will involve:

- removing/disposing of the old concrete kiosk, cap the dead electrical supply cable and bury into the old concrete riser.
- backfilled and seal the borehole in line with the EA's guidance: Good practice for decommissioning redundant boreholes and wells – October 2012 and inform the British Geological Survey.
- Backfill the top of the borehole with hardcore and soil to level the ground and make good.

The *Contractor* shall reinstate the access to any of the sites and repair any damage caused (including fences).

## 2. Drawings

List the drawings that apply to the contract.

Drawing Number	Revision	Title
1	1	Map of the pumping station locations
2	1	Proposed Borehole Construction
3	1	Proposed Kiosk Construction

## 3. Specifications

List the specifications which apply to the contract.

Title	Date or Revision	Tick if publicly available
EA's guidance: <i>Good practice for decommissioning redundant boreholes and wells</i>	October 2012	
Maddle Farm Dual Observation Borehole Specs	V1	

## 4. Constraints on how the *Contractor* Provides the Works

State any constraints on the sequence and timing of work and on the methods and conduct of work including the requirements for any work by the *Client*.

The *Contractor* shall not commence any work on the *site* until the *Client*, or their representative, has accepted the method statements and risk assessments related to this contract

The *Contractor* is to prepare, for the *Client's* acceptance, the Construction Phase Plan (CPP) prior to starting the *works*

The *Contractor* shall not commence any work on the *site* until the *Landowner* has agreed to the starting date/time.

### Working times

The *Contractor* will be permitted to work between 7.30am and 6.00pm on weekdays (Monday to Friday)

## 5. Requirements for the programme

State whether a programme is required and, if it is, state what form it is to be in, what information is to be shown on it, when it is to be submitted and when it is to be updated.

State what the use of the works is intended to be at their Completion as defined in clause 11.2(1).

The *Contractor* submits his programme with the *Contractor's* Offer for acceptance. The *Contractor* shows on each programme which he submits for acceptance (in form of Gantt chart showing the critical path, proposed order and timing to undertake the works and proposed plant and labour resources) the following:

- (a) Period required for mobilisation/ planning & post contract award
- (b) starting date
- (c) Each of the activities listed within the Price List
- (d) Any key third party interfaces: lead in periods for materials and sub-contractors; time required to obtain consents/waste permits; stated constraints; *Contractor's* risks.
- (e) Completion date

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

Describe what the *Client* will provide, such as services (including water and electricity) and “free issue” Plant and Materials and equipment.

Item	Date by which it will be provided

## Site Information

Map of Maddie Farm OBH location

PCI document

Utilities searches

## Proposed sub-contractors

Name and address of proposed subcontractor	Nature and extent of work

1.	Form of Contract:	
2.	Form of Contract:	
3.	Form of Contract:	
4.	Form of Contract:	