NEC4 Engineering and Construction Short Contract

Asset Operation, Maintenance and Response Framework

Lot 1 Civil Engineering (Maintain and Construct)

A contract between	**The Environment Agency** [redacted]
And	**Breheny Civil Engineering**
For	**AOMR Lot 1 – Bedford Bridge Inspection Programme 2024-25**
	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 *Client* is	Environment Agency	
Address for communications	[redacted]	
Address for electronic communications [relevant Project Manager]	[redacted]	
	The *Contract Administrator* is	
Name	[redacted]	
Address for communications	[redacted]	
Address for electronic communications	[redacted]	
The *works* are	Delivery of the Bedford Bridge Inspection Programme 2024-25	
The *site* is	Multiple sites across the Great Ouse Catchment Area. Specific NGR locations provided in the Site Information Appendix A.	
The *starting date* is	Monday 24th June 2024	
The *completion date* is	Friday 14th March 2025	
The *delay damages* are	Nil	Per day
The *period* for reply is	2	weeks
The period between completion of the *works* and the *defects date* is		52 weeks

The *defects correction period* is	4	Weeks
The *assessment day* is	the last working day	of each month
The *retention* is	Nil	%
The United Kingdom Housing Grants, Construction and Regeneration Act (1996) **does** apply		
The *Adjudicator* 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 *Adjudicator*. The application to the Institution includes a copy of this definition of the *Adjudicator*. The referring Party pays the administrative charge made by the Institution. The person appointed is also *Adjudicator* 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 *Contractor* to the *Client* for loss of or damage to the *Client's* property is limited to	£100,000	
The *Client* provides this insurance	None	

Insurance Table

Event	**Cover**	**Cover provided until**
Loss of or damage to the *works*	1.2x the replacement cost	The *Client's* certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials	1.2x the replacement cost	The *defects date* plus 2 years
The *Contractor's* liability for loss of or damage to property (except the works, Plant and Materials and Equipment) and for bodily injury to or death of a person (not an employee of the *Contractor*) arising from or in connection with the *Contractor's* Providing the Works	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 *Contractor* 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 *Contractor* to use the skill and care normally used by professionals providing works similar to the *works*	Minimum £2,000,000 in respect of every claim without limit to the number of claims	The *defects date* plus 2 years
The *Adjudicator nominating body* is	The Institution of Civil Engineers	
The *tribunal* is	Litigation in the courts	

Contract Data

The *Client's* Contract Data

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

Z1	**Sub-contracting**
Z1.1	The *Contractor* submits the name of each proposed *subcontractor* to the *Client* for acceptance. A reason for not accepting the subcontractor is that their appointment will not allow the *Contractor* to Provide the Works. The *Contractor* does not appoint a proposed *subcontractor* until the *Client* has accepted them.
Z1.2	Payment to *subcontractors* and *Delivery Partners* will be no more than 30 days from receipt of correct invoice.
Z2	**Environment Agency as a regulatory authority**
Z2.1	The Environment Agency's position as a regulatory authority and as *Client* 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 *Contractor* is responsible for obtaining these and paying fees (unless stated otherwise in the Scope). The *Client's* acceptance of a tender and the *Client's* 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 *Client* and is not a compensation event.
Z3	**Confidentiality & Publicity**
Z3.1	The *Contractor* may publicise the *works* only with the *Client's* written agreement.
Z4	**Correctness of Site Information**
Z4.1	Site Information about the ground, subsoil, ducts, cables, pipes and structures is provided in good faith by the *Client* but is not warranted correct. The *Contractor* checks the correctness of any such Site Information they rely on for the purpose of Providing the Works.
Z5	**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	**Design**
Z6.1	Where design is undertaken, it is the obligation of the *Contractor* to ensure the use of skill and care normally used by professionals providing similar design services.
Z6.2	The *Contractor* designs the parts of the *works* which the Scope states they are to design.

Z6.3	The *Contractor* submits the particulars of their design as the Scope requires to the *Client* for acceptance. A reason for not accepting the *Contractor's* design is that it does not comply with either the Scope or the applicable law. The *Contractor* does not proceed with the relevant work until the *Client* has accepted this design.
Z6.4	The *Contractor* may submit their design for acceptance in parts if the design of each part can be assessed fully.
Z7	**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 • War, civil war, rebellion revolution, insurrection, military or usurped power • Strikes, riots and civil commotion not confined to the employees of the *Contractor* and *subcontractors* • 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 device or thing dropped from them
Z8	**Framework Agreement**
Z8.1	The *Contractor* shall ensure at all times during this contract it complies with all the obligations and conditions of the Framework Agreement made with the *Client*.
Z9	**Termination**
Z9.1	Delete the text of Clause 92.3 and replace with: If the *Contractor* 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	**Data Protection**
Z10.1	The requirements of the Data Protection Schedule shall be incorporated into this contract
Z11	**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	**Packaging**
Z12.1	For contracts containing packages of projects the *Client's* Contract Data, Scope and Site Information particular to an individual project is contained within its Site-Specific Pack.

Z13	***Contract Administrator***
Z13.1	Under Clause 14.5, the *Client* delegates their actions defined in the contract to the *Contract Administrator* except for: • *Client's* acceptance of the *Contractor's* Offer to Provide the Works • Clause 16 Access to the *site* and provision of services • Clause 51 Payment • Clause 82 Recovery of Cost • Clause 83 Insurance • Clause 90 Termination The *Client* may replace the *Contract Administrator* after they have notified the *Contractor* of the name of the replacement.
Z14	**Inflation**
Z14.1	At the Contract Date the total of the Prices includes sums to cover inflation until Completion. On each anniversary of the *starting date* from certified Completion until the *rectification date* the Prices for remaining *works* are adjusted for inflation. The inflation adjustment is calculated for each item in the Price List for remaining *works* by adjusting the Prices by the latest CPI rate on the anniversary of the *starting date* published by the Office of National Statistics.

Contract Data

The *Contractor's* Contract Data

	The *Contractor* is	
Name	Breheny Civil Engineering Limited	
Address for communications	[redacted]	
Address for electronic communications	[redacted]	
The *fee* percentage is	[redacted]	%
The *people rates* are	As per the AOMR Workbook	
category of person	unit	rate
The *published list of Equipment* is		AOMR Workbook
The *percentage for adjustment for Equipment* is		8%

Sub-contractors

The Sub-contractors identified in the table below are accepted by the *Client* under Clause Z1.

	Name and address of proposed subcontractor	Nature and extent of work
[redacted]		
4.	Form of Contract:	

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	£130,056.00 plus VAT
	Enter the total of the Prices from the Price List.
Signed on behalf of the *Contractor*	
Name	[redacted]
Position	BCE AOMR Commercial Manager (Eastern)
Signature	[redacted]
Date	18/07/2024
The *Client* accepts the *Contractor's* Offer to Provide the Works	
Signed on behalf of the *Client*	
Name	[redacted]
Position	Operations Manager - Bedfordshire
Signature	[redacted]
Date	05/08/2024

Price List

This Price List is a summary using the subtotals from the detailed price breakdown, which is in turn derived from the *Contractor's* rates in the Lot 1 Pricing Workbook. The *Client* and *Contractor* agree the items, quantities, and costs for the project by applying the relevant items and rates from the Lot 1 Pricing Workbook. The *Client* enters the relevant subtotals below and removes the unused headings. Delete this guidance before issue.

This Price List is a summary using the subtotals from the detailed price breakdown, which is in turn derived from the *Contractor's* rates in the Lot 1 Pricing Workbook. The detailed price breakdown reference is [INSERT project specific file reference].

Ref	Description		Unit	Quantity	Rate	Price
4001a	BP092 Swavesey IDB Culvert	Stage 1 Scoping incl. Report	sum			
4001b		Stage 2 Inspection	sum			
4001c		Stage 2 Report	sum			
4002a	B038 Houghton Four Gate Pit Sluice Footbridge	Stage 1 Scoping incl. Report	sum			
4002b		Stage 2 Inspection	sum			
4002c		Stage 2 Report	sum			
4003a	B001 Hemingford Sluice Bridge	Stage 1 Scoping incl. Report	sum			
4003b		Stage 2 Inspection	sum			
4003c		Stage 2 Report	sum			
4004a	B004 Godmanchester Sluice Bridge	Stage 1 Scoping incl. Report	sum			
4004b		Stage 2 Inspection	sum			
4004c		Stage 2 Report	sum			
4005a	B042 Offord No 2 Weir Footbridge	Stage 1 Scoping incl. Report	sum			
4005b		Stage 2 Inspection	sum			
4005c		Stage 2 Report	sum			
4006a	B043 Offord Sluice Footbridge	Stage 1 Scoping incl. Report	sum			
4006b		Stage 2 Inspection & Load Assesment	sum			
4006c		Stage 2 Report	sum			
4007a	B092 Offord No 1 Weir Footbridge	Stage 1 Scoping incl. Report	sum			
4007b		Stage 2 Inspection	sum			
4007c		Stage 2 Report	sum			
4008a		Stage 1 Scoping incl. Report	sum			

4008b	B045 Eaton Socon Sluice Footbridge	Stage 2 Inspection	sum			[redacted]
4008c		Stage 2 Report	sum			
4009a	B089 Eaton Socon Sluice Service Bridge	Stage 1 Scoping incl. Report	sum			
4009b		Stage 2 Inspection	sum			
4009c		Stage 2 Report	sum			
4010a	B007 Goldington Bridge Castle Mill	Stage 1 Scoping incl. Report	sum			
4010b		Stage 2 Inspection	sum			
4010c		Stage 2 Report	sum			
4011a	B057 Harrold Mill Top Weir Footbridge	Stage 1 Scoping incl. Report	sum			
4011b		Stage 2 Inspection	sum			
4011c		Stage 2 Report	sum			
4012a	B091 Olney Sluice Service Bridge	Stage 1 Scoping incl. Report	sum			
4012b		Stage 2 Inspection	sum			
4012c		Stage 2 Report	sum			
4013a	BP119 Langford Recreation Ground Access Bridge	Stage 1 Scoping incl. Report	sum			
4013b		Stage 2 Inspection	sum			
4013c		Stage 2 Report	sum			
			The total of the Prices		£103,056.00 plus VAT	

The method and rules used to compile the Price List are:

Civil Engineering Standard Method of Measurement 4th edition (CESMM4) as per the Framework Pricing Workbook.

When ordering products and constructing the *works*: The accuracy and sufficiency of the measured quantities is not guaranteed. The Scope and drawings shall override the measured quantities.

The accuracy of dimensions scaled from the drawings is NOT guaranteed. Immediately obtain from the *Client* (or their Contract Administrator, if appointed) any dimensions required but not given in figures on the drawings nor calculable from figures on the drawings. This includes queries relating to accuracy or the scale stated on drawings.

Scope

1. Description of the *works*

1.1 Project background

1.1.1 The Great Ouse Catchment extends from Buckinghamshire and Northamptonshire in the west, through much of Bedfordshire, Cambridgeshire and the north western part of Norfolk to discharge into the sea via the Wash. The Ely Ouse tributary also picks up parts of Suffolk in the east as well as more of Cambridgeshire and Norfolk. The catchment has an area of 8,587km^2 and comprises a number of discrete watercourses separated by natural watersheds.

1.1.2 Topography varies substantially throughout the catchment. The western parts rise to approximately 170m AOD, whereas the area to the east of St Ives (approximately 3rd of the catchment) are the low lying fens. This low lying land is at an elevation close to mean sea level and tidal influences are a critical factor affecting drainage of the catchment.

1.1.3 The Environment Agency operate and maintain over 400 Environment Agency flood risk management structures within the Great Ouse Catchment. These include:-

- Bridges
- Sluices and other Gates
- Weirs
- Outfalls
- Culverts
- Manholes
- Pumping Stations
- Syphons

1.1.4 The primary objective is to deliver a programme of Detailed Asset Inspections, Bridge, CCTV, diving and asbestos inspections for flood defence structures for the 24-25 financial year to enable us to continue to provide the required standard of protection from flooding to the Great Ouse Catchment. These inspections will be used to develop ongoing programmes for maintenance and improvement works to safeguard the long term performance of these assets.

1.2 Description of the *works*

Overview

1.2.1 The *works* consist of undertaking detailed inspections on EA assets (including river control structures, flood defence structures, culverts and bridges) and written reporting on their overall, operational and structural condition and identification of defects. This supports EA decision making for future maintenance requirements.

1.2.2 Prior to undertaking the inspection, the Contractor shall undertake scoping for each asset (Stage 1) to understand Client requirements, identify any site specific constraints and plan the inspection accordingly. Depending on the asset and type of inspection required, this could be either desk based or require a site visit.

1.2.3 Following Client approval of the stage 1 scoping report, the Contractor is to plan and undertake the inspection (Stage 2). Depending on the asset and the scope agreed at stage 1, this will entail carrying out a Detailed Asset Inspection, CCTV Inspection, Diving Inspection, Asbestos Survey or Bridge Inspection. Requirements of these inspections are detailed in the subsequent sections of the Description of the works.

1.2.4 Any inspection/survey type may be specifically required as a standalone inspection (for example, Bridge Inspection); any combination of inspection/survey types may be required if identified as part of the Stage 1 Scoping Inspection (for example, a Detailed Asset Inspection of a Sluice which includes Diving and CCTV).

Stage 1 Scoping

1.2.5 The Contractor shall undertake Stage 1 Scoping for each asset prior to carrying out any asset inspection or survey. This shall be done in collaboration with the Client where required. Stage 1 scoping is applicable to all asset inspections.

1.2.6 It is envisaged that a typical scoping visit would require around 1 hour on site and be attended by the Contractor, sub-contractor, sub consultant and Client where required. Multiple sites in a geographical area could be visited on the same day.

1.2.7 As part of the Stage 1 Scoping the Contractor shall:

- Review list of assets to be inspected and programme scoping visits with Client and sub-Contractor's representatives, as appropriate, in accordance with the Client's priority status.
- Determine principal components of the asset: Obtain any drawings and other information that may be available.
- Prepare risk assessment and method statement for Stage 1 inspection.
- Undertake a scoping site visit to each asset to:
- identify and communicate to the Client any further constraints and access requirements including necessary traffic management operations;
- Collect additional site information;
- assess Health & Safety and welfare provisions;
- determine/agree the scope of the Stage 2 inspection;
- Prepare and submit Stage 1 Scoping Report for each asset for approval by the Client;
- Identify isolation requirements for the Stage 2 Inspection.

Stage 2 Inspections

1.2.8 Stage 2 must not proceed until the Client has advised that the Stage 1 Scoping Report is approved.

1.2.9 Prior to undertaking the Stage 2 inspection, the Contractor shall:

- Review output from Stage 1 Scoping Inspection;
- Work with the Client to determine the most favourable time to undertake the inspection and obtain any required permits to work and isolations. This will include providing a suitably competent person for electrical isolation should the Client be unable to;
- Contact the Client's site operative by phone to obtain a working overview of the normal operation of the site, a description of any recent problems or issues and an indication of recent repairs and maintenance work carried out;

- Ensure access to the site has been approved;
- Prepare a method statement and risk assessment for the Stage 2 Inspection. This should consider where applicable, any potentially hazardous areas or confined spaces entry and prepare suitable safe working practices and method statements accordingly;
- Ensure safe access to all elements of the structure required in the inspection. This may include, but will not be limited to, providing temporary ladders to access high level gantries, scaffolding, harnesses or mobile elevated working platform.
- Provide welfare if deemed necessary.
- Contractor shall provide any traffic management identified at stage 1.

1.2.10 A typical Stage 2 Inspection will take 1 day on site. Smaller assets will typically take a few hours. Stage 2 Inspections will be attended by the Contractor, sub-contractor(s), sub consultant, Client, EA Field Team/EA MEICA representatives as required.

Detailed Asset Inspections

1.2.11 The purpose of the detailed asset inspections (DAI) is to determine the condition, age, functionality and remaining life of each asset.

1.2.12 The asset may consist of a number of different components and the associated inspections may include, but are not limited to:

- Civil/structural inspections,
- MEICA inspections,
- CCTV surveys,
- Diving inspections,
- Ground investigations,
- Embankment stability analysis,
- Sheet piling surveys,
- Asbestos surveys.

1.2.13 The assets may comprise, but are not limited to:

- mechanical and electrical plant;
- penstocks, instrumentation controls;
- site access including paths, walkways, handrails and guard rails;
- training walls, wing walls and channels;
- weirs and aprons;
- stop log guides and stop logs;
- sluice gates, flood gates, lock gates and sea gates;
- siphons and culverts;
- pumps, pipes, valves and controls;
- protective treatment; and
- associated buildings and their foundations, drainage systems, retaining walls and free standing walls.

1.2.14 An inspection report is to be produced for each asset combining all inspections undertaken on that asset.

1.2.15 The Contractor shall undertake inspection of each asset identified by the Client to determine the condition, operability and defects of the asset and its principal components. The inspection shall include all accessible elements (including underwater) which may require specialist access such as diving, confined space entry, boats, pontoons, work platforms, crane with man riding basket.

Detailed Asset Inspection Scoping

1.2.16 Scoping for Detailed Asset Inspections is to be undertaken as described in Stage 1 Scoping (Paragraphs 1.2.5 to 1.2.7)

Detailed Asset Inspection Stage 2

1.2.17 The Stage 2 inspections may comprise, but are not limited to, a Detailed Asset Inspection comprising:

- Review of record drawings and existing information. e.g. original construction drawings with any later subsequent modifications/improvements to the site, O & M manuals, maintenance records;
- Visual evaluation of civil & MEICA elements of the asset; this is a visual condition report of the item indicating any corrosion, wear, damage, missing components and is to be supplemented with photographs;
- Assessment of any spalling to structural concrete, check cover to reinforcement if feasible;
- Assessment of structural steelwork including thickness testing to determine loss of section where appropriate
- Assessment of any displacement to steel sheet piling, look for depression to rear of wall/signs of movement to front and around base;
- Photographic records;
- Confirm conclusions drawn from knowledge received with operative if they are available and focuses on these items initially.
- Check general tidiness of site;
- Check for appropriate signage and site-specific safety equipment;
- Examination of local environment e.g. saltwater, near to housing, site of special scientific interest, security;
- Check for Health and Safety issues noted by operators and note any specific issues observed;
- Check accuracy and completeness of information collected.
- Data collection – this is the information that is present on nameplates or tags, it will be serial numbers, model/type, manufacturer, date of manufacture, rating.
- Operability – this is confirmation that the component functions as intended. Is it operating, does it start/stop or work, does it operate through its range, is it still within its intended duty, is excessive effort required to operate? Where possible and permissible check the operation of the equipment, otherwise obtain feedback from operating staff and maintenance logs.
- Safety – Check access to and egress from elements, are guards/covers in place, are all fixings in place, is it secure, are joints and connections properly made. Are there clear operating instructions and signage in place?
- Confirm whether or not the MEICA elements of the assets inspected conform to the latest revision of all relevant statutory regulations, including: Provision and Use of Work equipment Regulations 1998 (PUWER); Lifting Operations Lifting

equipment Regulations 1998 (LOLER; Electricity at Work Regulations 1989 (EWR); Pressure Systems Safety Regulations 2000 (PSSR).

1.2.18 The *Contractor* shall undertake any intrusive testing (i.e. trial holes, breakouts.), specialist access (boats, working platforms, diving) and pre-survey/enabling works as identified in Stage 1 Scoping.

1.2.19 On completion of the inspection, the *Contractor* shall remove any rubbish/debris created during the inspection and leave the site tidy and secure.

Reporting Requirements for Detailed Asset Inspections

1.2.20 Upon completion of the Stage 2 inspection the *Contractor* shall collate all the information and findings into a comprehensive report for each asset, including all findings from other inspections undertaken i.e. MEICA, CCTV, diving.

1.2.21 The report shall include the following elements:

- Asset Inspection Summary and condition rating – a brief summary on the findings and condition of the asset including general photographs and site layout and the purpose/objective of the inspection;
- List of Principal Asset Components;
- Introduction – who carried out the inspections, when and how, the site conditions and reference to any previous inspection reports/existing information;
- General Description – a brief description of site location including any specific references and of what equipment it comprises;
- Non-Accessible Areas Register – a list of all non-accessed or limited access areas;
- Detailed Asset Inspections – a more detailed report for each element of the inspection grouped by inspection type. including;
    - A detailed description of the findings for each element of the inspection;
    - Details of site inspection/surveys undertaken;
    - Assigned risk evaluations;
    - Recommendations for remedial works and timescales for completion of those works;
    - Any Health and Safety issues;
- Conclusions and Works Recommendations – a brief section of the repair/improvement works required either to meet statutory regulations or maintain the equipment residual life including assessment of estimated costs. Use tabular format to record:
    - condition summary and estimated residual life;
    - recommendations;
    - component/structure replacement costs;
- Appendices (e.g. sub-Consultant's reports.).
- Photos, drawings and calculations where applicable.
- Data Analysis Sheets – breakdown of risk analysis;

CCTV Surveys

1.2.22 There are a number of structures which form part of the *Client's* flood risk management systems, particularly culverts, where it is not possible for a visual inspection to be made. In these instances CCTV is used to inspect the culvert or siphon.

1.2.23 CCTV surveys will be required if identified as part of the Stage 1 Detailed Asset Inspection or is specifically required as a standalone inspection.

CCTV Surveys Stage 1 Scoping

1.2.24 Stage 1 scoping for CCTV surveys will be undertaken as described in Stage 1 Scoping (Paragraphs 1.2.5 to 1.2.7).

1.2.25 In addition, Stage 1 Scoping for CCTV surveys will include:

- The Stage 1 Scoping Inspection site visit must identify any enabling works required immediately prior to the CCTV survey (including, but not limited to, desilting, silt sampling, dewatering, over-pumping, vegetation clearance, traffic management).
- The *Contractor* shall liaise with the *Client* to determine the level of risk of siltation in each culvert/siphon: Stage 2 Inspection Reports must not be returned with "no information due to silt."

CCTV Surveys Stage 2

1.2.26 Prior to the CCTV sub-contractor carrying out the survey, the *Contractor* shall:

- Ensure that access arrangements have been made to the site;
- Undertake pre-survey works as identified in the Stage 1 Scoping Report. These may consist of, but are not limited to:
    - Vegetation clearance;
    - Desitling;
    - Dewatering;
    - Overpumping.

1.2.27 The *Contractor* shall:

- Supervise the CCTV Sub-Contractor on site;
- Survey the location of the culverts/siphons and provide Easting and Northing locations (based on an Environment Agency GPS grid) of the centre of the manholes at the US and DS end of the culvert (+/- 0.1m accuracy);
- Measure the cover level and invert level at all manhole locations as well as at the inlet and outlet. This is to be shown in the survey report under manhole survey information. Indicate the distance between ground level and the soffit level at inlet and outlet and attach relevant photographs;
- Provide accurate invert levels, pipe diameters, soffit levels for all incoming and outgoing pipes. Clearly identify the main culvert and give identifiers to all pipes at manhole locations;
- Provide a general visual description of the channel;
- Comply with the *Client's* National Standard Contract and Specification for Surveying Contracts for all surveying;
- If identified at Stage 1 Scoping, detailed topographical surveys should be extended 10m either side of the channel for 15m upstream of the culvert and 5m downstream of the culvert.

Reporting Requirements for CCTV inspections

1.2.28 Upon completion of the Stage 2 inspection the *Contractor* shall collate all the information and findings into a comprehensive report. This report shall be combined into a Detailed Asset Inspection Report or shall be presented as a stand-alone report, depending on the requirements in the Stage 1 Scoping Report.

1.2.29 The report shall include the following:

- Executive Summary - a brief summary on the findings and condition of the equipment including objectives, location, specific access information, inspection overview, recommendations and remaining life;
- Observations and Recommendations – a more detailed description of the findings, conclusions and recommendations;
- Grade Defect Report:
    - An Inspection Overview is needed for any failing assets along with the current condition grade. In this section, please provide key asset parameters, description of the defects and justification of the current condition grade awarded;
- Asset Location Details – including maps, local area plan, manhole locations and route of culvert plans;
- Photographs showing the internal condition, including:
    - any defects/intrusions/debris/blockages;
    - manholes showing all incoming/outgoing pipes;
- Manhole survey information with accurate invert levels, pipe diameters and soffit levels for all incoming and outgoing pipes;
- CCTV WinCan report:
    - Showing chainage from inlet or outlet (whichever is more convenient). Chainage measurements are not to start at each manhole but are to form a continuous record from the inlet or outlet, where possible.
    - Where information is found as part of this investigation on construction types, materials used, design loadings and similar this is to be provided or at least referenced in the culvert report.
    - The CCTV footage should be compiled in a digital form which is compatible with Windows Media Player and indexed by AIMS reference number (asset numbers provided) followed by corresponding manhole numbers. The CCTV footage is to be provided to the *Client* for storage and reference alongside CCTV survey reports.

1.2.30 The *Contractor* shall:

- Make a condition assessment of the culvert from the CCTV footage, according to the *Client's* Culvert Inspections: Guidance for Risk Based Internal inspection frequency OI 50_13_SD02.
- Prepare a detailed plan showing the culvert alignment and manhole locations with labels indicating manhole numbers and their NGR. Indicate surveyed sections of the culvert in red and un-surveyed in blue on the plan and label them accordingly. The plan is to form part of the CCTV survey report along the culvert location map.
- Notify the *Client* of any culverts with overall condition grade 4 or 5 within 5 working days of drafting the report.

Diving Inspections

1.2.31 The purpose is to undertake a condition and/or scour survey of the submerged parts of the asset. To be used either as part of the Detailed Asset Inspection or as a standalone scope.

1.2.32 The inspection should include an appraisal of the asset substructure scour condition and identify factors that may affect the safe operation of the asset and/or the load carrying capacity of the asset.

1.2.33 The *Contractor* shall comply with the requirements for compressed air diving in the Safety, Health, Environment and Wellbeing (SHEW) Code of Practice (CoP).

Diving Inspection Stage 1 Scoping

1.2.34 Stage 1 scoping shall be undertaken as detailed in in Stage 1 Scoping (Paragraphs 1.2.5 to 1.2.7).

Diving Inspection Stage 2 Inspection

1.2.35 Prior to the diving sub-contractor carrying out the survey, the *Contractor* shall:

- Ensure that access arrangements have been made to the site;

1.2.36 The *Contractor* shall be responsible for procuring suitable sub-contractors and for supervising the diving inspections.

Reporting Requirements for Diving Inspections

1.2.37 One digital video on a DVD of the diving survey in Windows media player format.

1.2.38 The report shall include the following:

- Executive Summary;
- Description of Asset Location including a General and a Detailed Location Plan;
- Brief Description of the Asset including a Form of Construction sketch;
- Details of the recent Maintenance History of the asset – where this information has been supplied by the *Client* or is obvious from the inspection;
- Summary of Defects observed during the previous inspection – in those cases where the *Contractor* has been supplied with the previous report;
- Inspection Details, i.e. names of inspecting engineers, date of inspection, weather conditions and any special access measures;
- Inspection Findings including description of the observed findings, appraisal of the condition of existing structure defects, evidence and likelihood of scour, record of the existing bed profiles;
- Discussion on the cause of the defects;
- Recommendations including recommendations for future asset management and remedial works, plus a suggested date for the next inspection;
- Appendices – including annotated inspection photographs; site notes; *Client* supplied drawings. – where applicable.

Asbestos Surveys

1.2.39 The Control of Asbestos Regulations 2012 places an explicit duty on the owners and occupiers to assess and manage the risks from the presence of asbestos.

1.2.40 Asbestos management surveys are required to identify the amount and condition of any asbestos containing materials (ACMs).

1.2.41 The *Client* owns/operates a number of assets where asbestos is, or may be, present.

Asbestos Surveys Stage 1 Scoping

1.2.42 The *Contractor* shall work collaboratively with the *Client* to scope the asbestos surveys and any testing required as part of Stage1 Scoping.

Asbestos Surveys Stage 2 Inspection

1.2.43 The *Contractor* shall be responsible for procuring and managing asbestos management surveys to positively identify ACMs where ACMs are suspected to be present or have been previously identified as present.

1.2.44 All surveys, testing and reporting shall be in line with the HSE's Asbestos: The survey guide, Second Edition 2012.

Reporting Requirements for Asbestos Surveys

1.2.45 Upon completion of the Stage 2 inspection the *Contractor* shall collate all the information and findings into a comprehensive report. Reporting requirements are set out in the HSEs guide.

Bridge Inspections

1.2.46 This commission typically comprises those bridges which are used by *Client*'s staff in connection with flood defence work. Most of the bridges do not carry a public highway and are owned either by the *Client* or by the adjacent landowners. Most of the bridges are relatively simple comprising a single simply supported span, although there are a few that are more complex. The bridges are to be subject to a Principal Inspection with frequencies varying depending in which of the *Client's* operational areas the asset is located.

1.2.47 The bridges to be inspected shall fall into one of the following categories:

- *Client* owned bridges on *Client* owned land
- *Client* owned, or maintained bridges, on privately owned land;
- Privately owned bridges carrying a public right of way;
- Privately owned bridges with no public right of way but over which the *Client* has permitted access.

Bridge Inspections Stage 1 Scoping

1.2.48 As part of the Stage 1 Scoping the *Contractor* shall prepare a Stage 1 Scoping Report to be submitted to the *Client*, containing the following information:

- Type of bridge;
- Review of record information;
- Bridge photographs;
- Specialist access recommendations;
- Assessment recommendations (including reason for assessment);
- Intrusive investigation requirements for Level 3 assessment where insufficient record information is available for Level 1 assessment;

1.2.49 Additional requirements for Stage 1 Scoping Inspection for Principal Bridge Inspections are as follows:

- Where requested by the *Client*, the *Contractor* shall contact the owners of privately-owned bridges and provide advance notice of the scoping visit. If the owner raises any objection to the inspection taking place, it shall be abandoned and the *Client* advised accordingly;
- Review available records to determine the need for assessment and testing.

1.2.50 The *Contractor* should also consider the appropriateness of undertaking a CS451 (formerly BD101) review, to be agreed with the *Client.*

1.2.51 The *Contractor* shall scope the extent of any intrusive testing required as part of Stage1 Scoping. In the event that an assessment can be undertaken using conservative material

properties from CS 4-54 and still return adequate capacities (e.g. 40 tonnes wheeled, 40 tonnes tracked vehicles in all categories), this shall be admissible in lieu of testing.

Bridge Inspections Stage 2 Principal Inspection

1.2.52 Stage 2 must not proceed until the *Client* has advised that the Stage 1 Scoping Report is approved.

1.2.53 Where requested by the *Client*, the *Contractor* shall contact the owners of privately-owned bridges and provide advance notice of the inspection. If the owner raises any objection to the inspection taking place, it shall be abandoned and the *Client* advised accordingly;

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

- The *Contractor* shall produce risk assessments and method statements (RAMS) for each inspection and submit them for acceptance by the *Client* and/or Principal Designer prior to carrying out the inspection;
- The *Contractor* shall provide any specialist access equipment as necessary. (e.g. boats, mobile elevating working platforms and access to confined spaces);
- Inspections/testing shall be undertaken during normal working hours (according to the Minimum Technical Requirements) and not at weekends;
- Inspection teams shall comprise at least two people. Lone working is not permitted;
- A record shall be made of any publicly or privately-owned service that may be observed;
- Urgent safety related defects shall be notified to the *Client* immediately.
- Intrusive inspection and testing identified in the Stage 1 Scoping

1.2.55 The results of the inspection, testing and/or assessment shall be submitted in a single report.

Bridge Inspection Reporting Requirements

1.2.56 The Principal Inspection Report shall compromise, as a minimum, the following elements:

- Cover page providing asset register details, carriageway width and load capacity;
- Asset Inspection Summary to include asset register details, location, brief bridge description, names of inspecting engineers, date of inspection, weather conditions, any special access measures, an overall condition rating, Bridge Condition Indicator (BCI) scores and the a recommended date for the next Principal Inspection using a 'risk-based approach' as agreed with the *Client*.
- Executive Summary to include;
    - Summary of routine, short-term, medium-term and long-term maintenance requirements for each element with a timescale for performance;
    - General photographs of the bridge;
    - Bridge location including 'General' and 'Detailed' Location Plans, and;
    - Brief description of the bridge including a 'Form of Construction' sketch;
- Details of the recent maintenance history of the bridge where this information has been supplied by the *Client* or is obvious from the inspection;
- Summary of defects observed during the previous Principal Inspection where the previous report has been provided by the *Client*;
- Summary of previous testing where testing reports or findings have been provided by the *Client;*

- A review of the validity of the previous assessment where the previous assessment has been provided by the *Client*;
- A Health and Safety risk assessment for any hazards identified that may affect the public, the workforce/operators or private users;
- Findings of the inspection broken down by element and equivalent element with comments including the significance of the defects observed, recommendations for remedial action, timescale, severity and extent codes and annotated photographs. Elements, equivalent elements, severity codes and extent codes are as defined in the Inspection Manual for Highway Structures Volume 1;
- Material Testing and Test Results, where undertaken in connection with this inspection;
- Details of assessment, where undertaken in connection with this inspection;
- Calculation of bridge condition indicator (BCI) scores;
- Inspection frequency risk assessment in undertaken in accordance with CS 450 or other method agreed with the *Client*;
- *Client* supplied drawings – where applicable;
- Approval in Principle and assessment certification– where applicable;
- CS 470 documentation for sub-standard structures – where applicable.

Standards to be Used During Bridge Inspections

1.2.57 Generally, the inspection, testing and assessment of bridges shall be undertaken in accordance with Highways England's suit of standards contained in the Design Manual for Roads and Bridges (DMRB) and any applicable Interim Advice Notes (IANs). Highways England is currently in the process of updating and replacing all the DMRB documents and IANs. Any reference to a standard shall be deemed to refer to its successor standard once published by Highways England. An assessment of Health & Safety should be conducted for the bridge (i.e. parapet heights, correct safety signage).

1.2.58 The assessments shall be performed using the Highways England's suite of assessment codes which are contained in the Design Manual for Roads and Bridges. However, to reflect the special circumstances that pertain to the *Client's* bridges, several amendments shall be made with respect to the vehicular loading requirements of CS 454:

- Even where a bridge has enough trafficable width to accommodate multiple lanes of traffic, the 'convoy' wheeled vehicle capacity shall be derived with respect to a single lane of traffic only;
- Where the 'convoy' traffic situation requires a weight restriction to be imposed, the assessment shall be extended to determine the corresponding capacity in respect of a 'single vehicle' loading scenario;
- Where a single vehicle loading scenario indicates the need for a weight restriction, then the possible benefit of imposing a 5mph speed limit shall be considered – this being deemed ample justification to reduce the 'critical axle impact factor' from 1.8 to 1.3.

1.2.59 Tracked plant loading is not covered by CS 454. However, assessed capacities shall be derived on the following basis:

- The tracked vehicles to be considered are those that are included in the *Client*'s 'Tracked Plant Schedule' and the accompanying definition of the four "Tracked Plant Classes';
- Tracked vehicles shall only be assessed in a 'single vehicle' loading scenario;

- Where vehicle speeds are unrestricted, a critical track impact factor of 1.3 shall be assumed. This shall be reduced to 1.1 where a 5mph speed limit is to be enforced;
- For initial assessment, the partial load factor of 1.5 shall be applied in accordance with CS 454. Where this results in restricted capacity, a reduced factor of 1.3 shall be considered to reflect the likelihood of tracked plant being overloaded, in a similar manner to the partial load factor for HB loading. This will require the *Client* to exert control on the loading of tracked plant such that overloading is very unlikely.

Table 1: Tracked Plant Class

Classification	Range of Track Length (m)	Range of Track Widths (m)	Representative Track Length (m)	Representative Track Width (m)	Typical vehicles included in grouping
A	1.5 to 2.49	0.33	1.5	0.33	D31S
B	2.5 to 3.49	0.45	2.5	0.45	A9007
C	3.5 to 4.49	0.66 to 0.7	3.5	0.66	SHE, RB22, JS210, JS220, JS200, JS 160
D	4.5 to 5.5	0.8 to 0.915	4.5	0.8	LHE, RB30

Table 2: Tracked Plant Schedule

Vehicle Type	Gross Weight (tonnes)	Length (metres)	Width (metres)	Track Width (metres)	Weight / Track (kN)	Load Intensity / Track (kN/m^2)	Strip Load / Track (kN/m)
Large Hydraulic Excavator (LHE)	26.25	4.64	3.39	0.8	128.8	34.7	27.8
Small Hydraulic Excavator (SHE)	17.5	3.9	2.86	0.7	85.8	31.4	22.0
RB 30	35.0	4.88	3.66	0.915	171.7	38.4	35.2
RB 21 ICD	23.7	3.91	2.87	0.66	116.2	45.0	29.7
JCB JS210	22.0	3.66	2.87	0.7	107.9	42.1	29.5
JCB JS220	24.0	3.66	3.09	0.7	117.7	45.9	32.2
JCB JS200	21.5	3.64	3.0	0.7	105.5	41.4	29.0
JCB JS160	17.0	3.94	2.49	0.7	83.4	30.2	21.2
CASE A9007	9.0	2.68	2.6	0.45	44.1	36.6	16.5
KOMATSU D31S	11.0	2.0	1.8	0.33	54.0	81.8	27.0

1.2.60 The bridge inspection team shall comprise at least one member who is certified with the Bridge Inspector Certification Scheme (BICS) or can demonstrate experience equivalent to that required for BICS 'Inspector' level qualification.

Bridge Inspection Deliverables

1.2.61 The *Contractor* shall produce the following documents for each asset:

- Stage 1 Scoping Report
- Stage 2 Asset Inspection Report

1.2.62 These reports shall vary depending on the asset type and inspection(s) undertaken and further details of the requirements of each are contained in the preceding sections.

1.2.63 A draft version of each report shall be submitted to the *Client* within two weeks of the scoping site visit (stage 1) or within 4 weeks of the inspection (stage 2). The final version of each report shall be submitted no more than two weeks after receiving the *Client's* comments/approval of draft report.

1.2.64 All reports produced by the *Contractor* shall be subject to final check and approval of a Chartered Engineer (CEng MICE) prior to issue to the *Client*.

1.2.65 All reports shall be submitted to the *Client* electronically in pdf format.

1.2.66 *Contractor* to develop Stage 1 and 2 report templates which shall be agreed with client.

1.2.67 The following example reports are available on request from the *Client*:

- Example Stage 1 Scoping Report DAI
- Example Stage 1 Scoping Report Bridge
- Example Stage 2 Inspection Report DAI
- Example Stage 2 Inspection Report Bridge
- Example Stage 2 Asbestos Report
- Example Stage 2 CCTV Report

Cost Forecasting

1.2.68 The *Contractor* is to produce an updated cost forecast which shall be provided to the *Client* on the 1st of each month. This shall profile the forecasted monthly costs to the full contract *completion* date.

1.2.69 The *Contractor shall* maintain the *works* from Completion until the *rectification dates.*

1.3 *Contractor's* design

1.3.1 None required

1.4 Accommodation

1.4.1 The *Contractor* shall provide accommodation, services and facilities as is necessary to complete the *works*, as quantified and priced in the Framework Pricing Workbook.

1.5 Access to the Site

1.5.1 Prior to first entry to the site to undertake physical *works*, the *Contractor* shall record the condition of the site and accesses to the site through photographs and videos. These are submitted to the *Client* for record keeping. The *Contractor* shall leave the site and accesses to the site in as good a condition as prior to first entry.

1.6 Sharing the Site with the *Client* and Others

1.6.1 In the context of this contract, Others is defined as all stakeholders relevant to the scope of the contract.

1.6.2 The *Contractor* shall co-operate with Others in obtaining and providing information which they need in connection with the *works*.

- What is being done,
- Who is doing it,
- When it is being done, and for how long,
- Where is it being done,
- How the *Contractor* is to co-operate and share the Working Areas.

1.7 Management of the W*orks*

1.7.1 The *Client* and *Contractor* administer the contract using the *Client's* contract management tools. This is currently FastDraft but may be transferred to similar systems from time to time.

1.7.2 The *Client* and *Contractor* attend the following meetings:

- Project start meeting
- Monthly progress meetings from the *starting date* to *completion date*. The *Client* confirms the date and venue of these meetings. The *Client* chairs and records these meetings
- Monthly commercial meetings from the *starting date* to *completion date*. The *Client* confirms the date and venue of these meetings. The *Client* chairs and records these meetings as required.
- Site walkovers as requested by the *Client.*
- Early Warning meetings as instructed by either Party.

1.7.3 The *Contractor* shall produce a progress report and submit this with their updated programme a minimum of 2 working days ahead of the monthly progress meeting. This report:

- highlights the progress achieved since the last programme submission.
- explains any deviation from the previous programme in terms of progress and/or changes to the planned activities,
- explains what actions are being implemented to mitigate any delay,
- state the expected date when the *Contractor* forecast to complete the *works* compared to the contract Completion Date,
- details any lost days due to weather,
- summarises the latest commercial position with detail of the original Prices, the value of implemented Compensation Events, the forecast of unimplemented Compensation Events, the forecast of the Prices,
- includes site photos of progress achieved since the previous progress report.

1.8 Weather Measurements

1.8.1 The place where weather is to be recorded is: Site Log Book

1.8.2 The weather measurements are to be supplied by: Met Office

1.9 Quality Management

1.9.1 The *Contractor* shall carry out the following tests and inspections:

- None required

1.9.2 The *Client* shall carry out the following tests and inspections:

- None required

1.9.3 Until the *defects date,* the *Client* shall instruct the *Contractor* to search for a defect.

1.9.4 The *Client* shall notify a defect to the *Contractor* at any time before the defects date.

1.9.5 The *Contractor* shall correct a defect whether or not the *Client* has notified it.

1.9.6 Before completion, the *Contractor* shall correct a notified defect before the end of the defect correction period. This period begins at the later of the completion and when the defect is notified.

1.9.7 The *Client* shall issue the defects certificate at the defects date if there are no notified defects, or otherwise at the earlier of:

- The end of the last defect correction period and
- The date when all notified defects have been corrected.

1.9.8 The *Contractor* and the *Client* may each propose to the other that the scope should be changed so that a defect does not have to be corrected. If the *Contractor* and the *Client* are prepared to consider the change, the *Contractor* shall submit a quotation for reduced Prices or an earlier completion date or both to the *Client* for acceptance. If the *Client* accepts the quotation, it shall change the scope, the prices and the completion date accordingly.

1.9.9 If the *Contractor* has not corrected a notified defect within its defect correction period, the *Client* shall assess the cost of having the defect corrected by other people and the *Contractor* shall pay this amount.

1.10 Consents, Permits and Licenses

1.10.1 The *Client* shall obtain the necessary consents, permits, licenses and/or agreements from third parties for the permanent works.

1.10.2 The *Contractor* shall obtain the necessary consents, permits, licenses and/or agreements from third parties for the temporary works.

1.11 Health, Safety & Environment

1.11.1 The *Client's* SHEW CoP is applicable to the *Contractor* in providing the *works*.

1.11.2 The Considerate Constructors Scheme is applicable as per the *Client's* SHEW CoP. The *Contractor* is responsible for registering the project unless otherwise instructed by the *Client*.

1.11.3 The Construction, Design & Management (CDM) Regulations are applicable to the *works*. The *Contractor* acts as *Principal Contractor.*

1.11.4 The *Contractor* shall produce project specific risk assessments and method statements (RAMS) detailing how they will provide the *works* and submits these to the *Client* for acceptance. The *Contractor* does not commence activities until the relevant RAMS have been accepted by the *Client*. The *Client* has the *period of reply* to respond to the RAMS.

1.11.5 The *Contractor* undertakes the actions within the Environmental Action Plan (EAP)

1.12 Procurement of subcontractors

1.12.1 In accordance with Schedule 7 Clause 2.1.3, the *contractor* shall use sustainability, quality and price criteria when selecting *subcontractors*, evidence of how this was undertaken to be retained and made available to the *Client* if required.

1.11.2 In accordance with Schedule 7 Clause 2.1.6, the *contractor* shall ensure that supply chain opportunities are inclusive and accessible to Small and medium-sized Enterprises;

Voluntary, Community and Social Enterprise organisations and under-represented groups of suppliers.

1.11.3 In accordance with Schedule 7 Clause 2.1.1, the *Contractor* shall use the Contracts Finder website to advertise any sub-contracting opportunities to encourage a diverse and inclusive supply base. Within ninety (90) calendar days of awarding a sub-contract to a sub-contractor, the Delivery Partner updates the notice on Contracts Finder with details of the successful *subcontractor*.

1.13 Title

Marking

1.13.1 Not applicable.

Materials from Excavation and demolition

1.13.2 Not applicable.

1.14 Completion

1.14.1 Prior to Completion the *Contractor* shall arrange a joint inspection with the *Client*. The initial inspection shall take place a minimum of one week in advance of the Completion. Completion is achieved and certified only when the *works* have reached a stage of completion where the site is judged to be acceptable for handover and suitable and safe for its intended use. The *Client* is responsible for making their initial judgement following the joint inspection.

1.14.2 The following criteria must be met for the *works* to be certified as Complete

- all reinstatement works must be fully complete, and all construction plant, and machinery must have been removed from site.
- all site perimeter fencing, temporary works, materials storage and waste must be removed from site.
- all public open spaces must be safe for use by the public with no remaining hazards associated with construction operations.
- All final stage 2 reports to be submitted and accepted by *Client.*

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

- Provision of all information required by the Principal Designer for the Health & Safety File including but not limited to:
    - As-built drawings if there have been any changes to design
    - Maintenance plans

1.15 ACCOUNTS AND RECORDS

1.15.1 The *Contractor*'s application for payment shall be submitted on FastDraft and supported by a breakdown of the *works* for which payment is due in the format provided in the Price List, including any implemented Compensation Events.

1.15.2 Following Completion and during the establishment maintenance period, the *Contractor* shall submit applications for payment at quarterly intervals (or half-yearly if agreed with the *Project Manager*).

1.15.3 The *Contractor* shall issue invoices to the following two (2) email addresses and shall quote "Asset OMR, the relevant Framework Hub / Area, and PO number" in the email subject line.

- [redacted]
- [redacted]

1.16 PROGRESS MEETINGS

1.16.1 Frequency: Monthly

1.16.2 Location: MS Teams/Environment Agency, Ely Office

1.16.3 Chairperson (who will also take and distribute minutes): [redacted]

2. Drawings

Drawing Number	Revision	Title
None		

3. Specifications

Title	Date or Revision	Tick if publicly available
Asset OMR Framework Deed of Agreement and Schedules	04/03/2024	
Minimum Technical Requirements – Standard (LIT 13258)	V 12	

Minimum Technical Requirements – Environment and Sustainability (LIT 65150)	V 2	
Exchange Information Requirements (LIT 17641)		
SHEW CoP	V 6	
Flood and Coastal Risk, Asset Management Environmental Maintenance Standards (LIT 12144)	V 2.0	
Control of Substances Hazardous to Health (COSHH) Regulations		
Construction Design Regulations (CDM) 2015		
Code of practice for electrical safety (COPES) Electrical authorisation (LIT 13130)		
Annex 11 Code of practice for electrical safety (COPES) part 1 (LIT 13118)		
Annex 11 Code of practice for electrical safety (COPES) part 2 (LIT 13133)		
Lot 1 – Spec supplementary clauses – CULVERTS – CoP		
Lot 1 – Spec Supplementary clauses – General		
Lot 1 & Lot 3 – Supply Chain Passport Template		
Exchange Information Requirements (BIM)	V3	
Safety, Health, Environment and Wellbeing (SHEW) Code of Practice (CoP)	V 5	
Exchange Information Requirements (EIR)	V3	

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

4.1 In accordance with Clause 14.5 of the contract, all of the *Client's* actions under the contract are delegated to [redacted] The *Contractor* shall only act upon instructions received from the *Client's* delegate.

4.2 All communications from the *Contractor* to the *Client* shall be sent to [redacted]

4.3 Protection against Damage

4.3.1 The *Contractor* shall ensure that flood embankments, access tracks, fences, hedges, structures etc. found on *site* are not damaged by their activities. Such features are fully reinstated to the satisfaction of the *Client* and the landowner/occupier within the timescales detailed in the Specification.

4.3.2 Particular attention is required when working in proximity to Armaflex and Enkamat systems, which may have exposed elements above the surface. Significant damage would be caused to assets should these elements get entangled in *Contractor's* Equipment.

4.3.3 The *Contractor* shall not commence any work on the site until the *Client*, or their representative, has accepted the Construction Phase Plan, including method statements and risk assessments ahead of each project in this contract. Acceptance will be by way of a written communication from the *Client* confirming the *Contractor* may take possession of the site from the agreed starting date.

4.3.4 The *Contractor* must allow a minimum of 2 weeks to allow the Principal Designer to review construction phase plans.

4.3.5 In order to assess the extent of work, the *Contractor* shall visit each site when pricing the work. The *Contractor* shall inform the *Client* of the time and date of each site visit before going to site.

4.3.6 The *Client* has the contractual right to access the working area as shown on the drawings. The *Contractor* shall be required to determine the suitability of the access and agree any alternative routes with the landowner should the identified routes be unsuitable.
4.3.7 Details of the routes must be included within the method statements. Access conditions may deteriorate following wet weather and the Contractor should assume the worst conditions when preparing his quotation.

4.3.8 Compensation will be agreed and paid by the *Client* (via its appointed land agents) to affected landowners based on the *Contractor's* programme, proposed access routes and method statements. Compensation claims incurred due to the *Contractor's* failure to comply with its programme, access routes and/or method statements will be passed on to the *Contractor*.

4.3.9 Where necessary the *Contractor* shall include for the removal and replacement of any gates, fences or hedges or any other measures necessary such as installing temporary tracks or crossings to facilitate access. The *Contractor* shall be responsible for reinstating access tracks/routes to the same conditions as encountered on arrival to the site.

4.3.10 The *Contractor* shall take all reasonable steps to avoid damage and disruption to the surrounding land, to the designated sites and associated access routes. Such land may be privately owned, commercially managed for industrial, agricultural use, or part of the local social amenities etc. Any problems with access should be reported directly to the *Client*.

4.3.11 A key, which must be returned on completion of the works, will be provided as necessary to allow access through the *Client's* gates.

4.3.12 If access to a site has deteriorated (e.g. due to heavy rainfall) making it difficult or impossible for the *Contractor* to access, the *Contractor* shall immediately contact the *Client*. The *Contractor* shall inform the *Client* of their intention to continue work at this site or submit a request to the *Client* that they may either postpone work or be permitted to start work at another site. If the *Contractor* decides to continue at the original site, this will be at his own risk.

4.3.13 Seven (7) working days' notice of commencement of works shall be given to the *Client*.

4.3.14 Two (2) working days' notice must be given to the *Client* in advance of completion of the works.

4.3.15 All accidents, near misses, dangerous occurrences and environmental incidents shall be notified to the *Client*, or their representative.

4.3.16 The *Contractor* shall be responsible for obtaining and/or registering for any necessary waste exemptions.

4.3.17 The *Client* require twenty-four (24) hour / seven (7) days per week emergency contacts from the *Contractor* including the provision of out of hour's response if required due to theft, fire, flood and vandalism. It is expected that any emergency procedures are carried out by a competent employee of the *Contractor*.

4.3.18 The *Contractor* shall undertake an inspection and obtain pre and post work condition photos of any access routes that are expected to be used. This shall be made available to the *Client's* Project Manager upon request.

4.3.19 No mud or other debris to be deposited on any tarmac areas outside the site access gate, any such material to be removed immediately.

4.3.20 The *Contractor* shall ensure that any service diversions and protection measures required during the works have been arranged and agreed with the relevant Statutory Authority.

4.3.21 Un-scoped or additional projects shall be added to the package upon acceptance of the relevant Compensation Events (CE's) and revised programmes depending on *Contractor* performance.

4.3.22 No fires may be lit on site unless expressly authorised by the *Client.*

4.4 Choice of Equipment

4.4.1 The *Contractor* shall choose the most appropriate plant to complete the works.

4.4.2 The *Contractor* ensures that all plant is maintained.

4.4.3 All Equipment with hydraulic systems shall use biodegradable hydraulic oil.

4.4.4 All plant traversing under overhead cables shall be fitted with a Prolec or other height limiting device.

4.5 Permits

4.5.1 Works will require the *Contractor* to obtain a Flood Risk Activity Permit from the Environment Agency where required.

4.5.2 The *Contractor* shall be responsible for obtaining the necessary Environmental Permits for Flood Risk Activities (if applicable). The *Contractor* shall ensure the permits are received a minimum of two (2) weeks prior to commencement of works. The *Contractor* shall be responsible for all costs associated with permit applications. The *Client* has, were possible, started the application process which will need to be transferred to the *Contractor* and finalised. Please be aware the Permitting process can take eight (8) weeks from receipt of payment, need for permits to be discussed with *Client's* Project Manager prior to applying for permits.

4.5.3 The *Contractor* shall obtain any other necessary consents and permits to undertake the surveys and inspections. The following consents, permits to work and approvals may be required (this list is not exhaustive). An indicative:

- A Marine Licence under the Marine and Coastal Access Act 2009 (MCAA) maybe required for the works within the tidal zones
- Waste Management consents and approvals.
- Water Transfer licenses.
- Water Abstraction license for water used in construction.
- Obtaining traffic management consents/permissions required for temporary closures or diversions of highways, roads or footpaths.
- Diving permits

- Providing all information for each location where a Notice of Entry is required to gain access over and / or to non-Environment Agency owned land. Information is to be provided in a pre-populated Notice of Entry for Environment Agency Estates to process.

4.5.4 The *Contractor* shall be responsible for all costs associated with permit applications.

4.6 Working times

4.6.1 The *Contractor* will be permitted to work between 7.30am and 6.00pm on weekdays (Monday to Friday). In some instances, it may be deemed necessary for the *Contractor* to undertake weekend working, if required this will be limited to Saturday mornings and subject to advanced agreement with the *Client.*

4.7 Site Restrictions

4.7.1 The *Client* shall aim to provide access to each site for the *Contractor* within 4 weeks of the request from the *Contractor* to carry out the scoping visit/inspection, subject to satisfactory method statements, risk assessments and site/weather conditions.

4.7.2 The *Contractor* shall maintain access to sites for the *Client's* use at all times.

4.8 Other Constraints

4.8.1 Where requested by the *Client*, the *Contractor* shall contact the owners of privately-owned assets and provide advance notice of the scoping visit/Inspection. If the owner raises any objection to the inspection taking place, it shall be abandoned and the *Client* advised accordingly**.**

4.8.2 The *Contractor* is responsible for identifying suitable launch/access points for boats, pontoons, diving and making necessary arrangements with landowners if required.

4.8.3 The *Contractor* shall prepare, for the *Client's* acceptance, the Construction Phase Plan (CPP) and the Environmental Action Plan (EAP) prior to starting the works.

5. Requirements for the programme

5.1 The *Contractor* shall submit their first programme with the *Contractor's* Offer for acceptance.

5.2 The *Contractor* shall submit the programme in Adobe PDF and Microsoft Project formats.

5.3 The *Contractor* shall show on each programme submitted for acceptance:

- the *starting date* and Completion Date
- the critical path
- the dates when the *Contractor* forecasts to need first access to each part of the Site to undertake physical works
- the order and timing of the operations which the *Contractor* plans to do in order to provide the *works*
- lead in periods for materials and sub-contractors,
- the order and timing of the work of the *Client* and others required for the *Contractor* to provide the *works,*
- provisions for float, time risk allowance, mobilisation, project planning and procedures set out in the contract,

5.4 Within two (2) weeks of the *Contractor* submitting a programme for acceptance, the *Client* notifies the *Contractor* of the acceptance of the programme or the reasons for not accepting it. A reason for not accepting a programme is that:

- The *Contractor's* plans which it shows are not practicable
- It does not represent the *Contractor's* plans realistically or
- It does not comply with the Scope

5.5 If the *Client* does not notify acceptance or non-acceptance within the time allowed, the *Contractor* may notify the *Client* of that failure. If the failure continues for a further one (1) week after the *Contractor's* notification, it is treated as acceptance by the *Client* of the programme.

5.6 The *Contractor* shall show on each revised programme:

- The actual progress achieved on each operation and its effect upon the timing of the remaining work
- How the *Contractor* plans to deal with any delays and to correct notified Defects and
- Any other changes which the *Contractor* proposed to make to the Accepted Programme

5.7 The *Contractor* shall submit a revised programme to the *Client* for acceptance:

- Within the *period for reply* after the *Client* has instructed the *Contractor* to
- When the *Contractor* chooses to and, in any case,
- At no longer interval than stated below from the *starting date* until Completion of the whole of the *works*

From	To	Interval
Starting date	Start of establishment period	1 month
Start of establishment period	End of establishment period	3 months
Start of maintenance	Completion	Annual

5.8 The *Contractor* shall consider matters which may reduce the effectiveness or increase the cost of the inspection such as high flows, high water level or heavy summer vegetation. Diving/wading/in-channel inspections are unadvisable in the winter months (November to March) due to the likelihood of high flow conditions.

5.9 The *Contractor* shall propose a programme of inspections to the *Client* for acceptance. It shall include as a minimum the dates of inspections and for submission of draft and final reports.

5.10 The *Contractor* shall proceed in accordance with the accepted programme.

5.11 The *Contractor* shall update and issue the programme monthly showing progress achieved and any changes agreed by the *Client*.

5.12 The *Contractor* including key sub-contractors shall attend and provide updates at monthly progress meetings where requested by the *Client.*

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

Guidance

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

Item	**Date by which it will be provided**
Fastdraft Access	

7. Site Information

Site Information is provided in Appendix A.