Environment Agency
NEC4 engineering and construction contract (ECC)
Scope

Project / contract information

Project name	FY2020-21 – Asset Repair Works
Project 1B1S reference	Sub Programme 01 – Recovery Works ENVRECOV19 - Cap Sub-Prog P1 ENV0002881C
Contract reference	
Date	June 2020
Version number	Template / Capital
Author	[redacted]

Revision history

Revision date	Summary of changes	Version number
	First issue	

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

Document	Document Title	Version No	Issue date
412_13_SD01	LIT_13258 Minimum Technical Requirements	V2	18/03/2020

Contents List

S 100 Description of the *works*

Objective

The objective of the service is to work with others (Integrated Delivery Team (IDT)) to restore the flood risk assets back to their pre 2019 winter flood standards and conditions as prescribed by individual site scope (or SID) documents approved by the Client's team. Work must (wherever possible) be delivered by the Government-set winter deadline of 31 October 2020 without hurting people, damaging properties and the environment and it must comply with all the necessary legal requirements (for example EPR2018 regulations).

Outcome Specification

The *Contractor* shall deliver the service under the following 3 phases

Phase 1 – Definition of the problem / site investigation
Phase 2 – Design and target setting
Phase 3 – Construction

Phase 1 - Definition of the problem / site investigation

The *Contractor* will work with the *Client* and *Consultant* to provide full technical support to determine the most appropriate solution for the sites listed within the "2020_LNA Sub-programmes" spreadsheet for the sub-programme detailed within the Project / contract information table at the front of this scope. See Appendix 2 for List of Projects.

The *Contractor* will support the *Consultant* in assessment of the Environment Agency's assets and provide an acceptable "do minimum" solution to restore them to their required standard (anticipated to be EA standard Grade 3 unless otherwise stated).

The *Contractor* will support the *Consultant* in completion of the following Specific Project Requirements

- Participate in site visit(s) with other key members of the IDT and the Client's staff (only if this has not already been completed by others).
- Undertake necessary surveys and capture all relevant data within the SID Document.
- Provide necessary input into the SID documents produced by ARUP to allow the document to ideally be produced within 2 weeks of the site visit.
- Provide an initial assessment with options for the rehabilitation of the asset
- Manage the production of the overall programme across all sub-programmes (tranches)

The *Contractor* will manage, plan and deliver all on site activities needed to capture site investigation information, these could include but not be limited to the list below. The requirement for these along with the resources and target value will be determined within the SID documentation:

- Topographic Surveys (anticipated to be captured by the *Consultant*)
- Widow sampling
- Boreholes

- Bathymetric Surveys
- Utility searches

Phase 2 – Design and target setting

The *Contractor* will obtain relevant site information where this information is not available from the *Client*. This information will be used to develop the design in relation to the following 3 categories:

- **Limited Design**: based upon sites where little to no design is needed to fix the problem (implement the solution agreed by the *Client* within the SID), this option is to be used where there is a quick "off the shelf" solution. Under this option, whilst no analysis or site specific design is undertaken, the *Contractor* shall note the increased potential for change during construction, as local site conditions are better understood.
- **Standardised Design**: use of standardised profiles and details along with an agreed table of parameters that can be adapted quickly to implement a common approach across numerous sites. Implementation of the solution agreed by the *Client* within the SID. The Library of standardised design solutions will increase as more sites are developed across the IDT.
- **Detailed Design**: the problem defined within the SID requires a bespoke solution to fix the damage to bring the asset back to the correct standard.

Working with the *Client* and the *Consultant*, the *Contractor* will undertake the role of Early Supplier Engagement (ESE) contractor responsible for providing support and buildability advice ensuring that the design is acceptable to the *Client* and other associated approving bodies to enable works to commence. The design shall be acceptable to statutory and key stakeholders.

The design solutions must be buildable (demonstrated by a supporting buildability statement), not pose a risk to people or the environment (demonstrated by the designer's risk assessment), represents value for money and be affordable to the *Client*, within the agreed budget. The *Contractor* shall liaise with the *Consultant* or IDT delivery partners to help support safe buildable affordable solutions.

The *Contractor* shall liaise with the *Consultant*, in developing design solutions that shall reduce carbon impacts and contribute to positive environmental outcomes wherever possible. The *Contractor* shall support the *Consultant*, who will demonstrate that mitigation has been considered, where this is affordable by the *Client* and within the agreed budget.

The Contractor through individual site compensation events based upon the SID's preferred option shall deliver all or agreed elements only as set out within this scope to enable design and target setting to occur.

Phase 3 – Construction

The *Contractor* will ensure that the *Consultant* understands the information that is needed to deliver the correct solution quickly and efficiently without increased risk to people or the environment.

The *Contractor* shall plan, manage and deliver the *Works*.

The *Contractor* will capture, maintain, store and issue to the *Client* suitable records to ensure that progress is clearly understood and that any audit process can demonstrate quality, time and costs outcomes in accordance to the Environment Agency requirements, Framework and industry best practices.

The *Contractor* through individual site compensation events based upon the SID's preferred option shall deliver all or agreed elements only as set out within this scope to enable construction to occur.

S 101 Description of the *works*

The drawings describing the *works* are included within Client's instruction (PMI) for the site specific scope/SID/Compensation Event.

The baseline setting out information will be included on of these drawings. The *Contractor* will establish these lines on site and confirm the position with either the *Client* or the *Supervisor* before commencement of any construction *works*. The *Contractor* shall check the provision of any level reference points shown on the drawings and confirm the position and level with the *Supervisor* before use for setting out the *works*. The *Contractor* shall inform the *Project Manager* when all setting out reference points have been agreed, checked and confirmed.

S 102 Purpose of the Works/ Outcome required

Provision of recovery and asset repair activities as directed by the *Client* on a reasonable and best endeavours basis. Provide People, Materials. Plant, Equipment and subcontractors for the recovery works in keeping with requirements of the framework deed of agreement.

The *Client's* overall objective is prevent risk of life, along with flooding and/or damage to our assets properties, businesses, infrastructure and land.

The *Contractor* will establish setting out positions with the *Client* / Supervisor before commencement of any construction works. The *Contractor* shall check the provision of any level reference points shown on information provided or will tie in levels to match the surrounding asset level. The *Contractor* shall inform the *Project Manager* when all setting out reference points have been agreed, checked and confirmed.

The objective of the works is to reduce the threat of "Risk to Life" and/or reinstate, fix or repair the damaged or broken asset back to its condition prior to the damage under the incident. The *Contractor* will provide the following:

- Senior Management resource
- A planner to support the interconnection between all work elements and projects within all the sub-programmes.

- People, Plant, Resources, Equipment
- ESE support to Designer and buildability statement provision
- Site welfare
- Risk Assessment
- Method Statements
- Resources to work with the *Client's* Cost and Carbon Estimator (CCE) to reach mutually acceptable Targets and Cost Estimates
- Programme
- Daily Summary reports of progress including photos and/or video (for some high risk sites)
- Delivery Plan
- Weekly summary reports
- Monthly progress reports
- Photographs and video footage of progression and key elements of work.
- Site Branding showing that the works are being undertaken on behalf of the Environment Agency. Environment Agency branding must be at least equal to the amount that the *Contractor* has on the site and be visible at the working site and not just the compound area.
- All PPE for visitors.

The *Contractor* shall complete the works / repair the asset / undertake asset refurbishment such that it provides value for money to the *Client*.

The *Contractor* shall maximise positive environmental outcomes and demonstrate mitigation has been considered.

The *Contractor* shall ensure that the final solution/options considered are compliant with all guidance and legislation and seek to minimise long-term asset/land management and maintenance costs

The *Contractor* shall support the *Client* in obtaining all approvals as required and support the overall management of the commission which will include the following:

- Adhering to the agreed programme and identifying resource responsible for quality assurance that is removed from the day to day running of the project.
- Applications for payment shall make it clear to which site the costs have been incurred on. This will inform the *Client* to book the costs to the correct asset reference.

- Agreement and management of change.
- Attend project review and design meetings with the *Client* and the *Consultant*. The *Contractor* shall help agree appropriate standards and any necessary deviations.
- Attend a project data meeting with the *Client* to agree the appropriate standards to be adopted. The *Contractor* should use this meeting as a basis of understanding the design philosophy that has been agreed with the *Consultant* for the *Works*.
- Attendance at weekly meetings (via MS Teams where face to face meetings are not practicable) and on-going management of project risk and programme reviews to achieve the scope. The programme must include post approval activities to construction start, in accordance with programme guidance.
- Monthly risk register review, update (including the *Contractor's* risk budget assessment) and implementation of resulting actions.
- Provide input to and actively maintain the project value register (efficiency register/CERT).
- Commencement/ Monthly progress/handover meeting attendance and management of *Contractor's* actions
- Monthly financial updates and forecasts to meet EA deadlines together with the production of checkpoint reports, end stage reports, exception reports (as required), end project report, daily log and other management products in accordance with PRINCE2.
- Attend project board and programme board meetings as required in the capacity of the *Contractor* as "Senior Supplier".
- *Contractor's* contracts manager or alternative agreed person to be responsible for delivery of services and products in line with accepted programme.
- Co-operate with the *Client* in the role of the BIM Information Manager
- Quarterly input into performance assessment/KPIs and management and implementation of associated actions arising.
- Handover package of project deliverables.
- *Contractor's* environmental lead to provide support to the delivery of the Works and be engaged during the development of design solutions. Exceptions are to be raised for inclusion within progress and risk reviews in monthly reports as necessary.
- The environmental lead is an integrated member of the project team and also attends progress meetings, risk workshops, project board and programme board meetings as necessary based upon the risk of the activities occurring or planned to be delivered.
- Review and update the lessons learnt log during monthly progress meetings and disseminate any key lessons learnt to the business.

- Review and update the issues log during monthly progress meetings and determine the appropriate action required to resolve.

S 200 General constraints on how the *Contractor* provides the works

S 201 General constraints

The *Contractor* shall use the MTR where required, however should any deviations be required, then they must be agreed with the *Client* prior to the deviation occuring.

The *Contractor* shall liaise directly with any landowner following the initial contract that must be made by the *Client's* estates team. The *Contractor* must ensure that the condition of any access roads, tracks, buildings etc are clearly recorded and photographed prior to gaining access to private land. Any concerning items are to be recorded and shared with the *Client*. The *Contractor* shall install mitigation measures to prevent any damaged or increased impacts to any landowner and their land or buildings.

The *Contractor* must not gain access to private land, without the owner's permission or until the Notice of Entry has been served on the landowners

S 202 Confidentiality

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

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

S 203 Security and protection on the site

The *Contractor* shall be responsible for the security requirements for the Site and protection of the public.

S 204 Security and identification of people

The *Contractor* shall be responsible for the security vetting and identification of people working on or visiting the Site. The *Contractor* shall provide a list of staff who may need to gain access to the *Client's* asset and welfare facility during the works. The *Contractor* shall be responsible for cleaning and maintaining the *Client's* welfare facilitates should they be used by the *Contractor* during the works.

S 205 Protection of existing structures and services

The *Contractor* shall be responsible for protection of existing structures, services, mains, trees and other plants. Requirements for maintenance of existing services. Procedures for working on existing structures and services.

Refer to the Site Information for the location of existing things to be protected or procedures for identifying them.

S 206 Protection of the *works*

The *Contractor* shall be responsible for any specific requirements for the protection of the works against damage.

S 207 Cleanliness of the roads

The *Contractor* shall be responsible the cleanliness of roads, tracks and private access points that are used by the *Contractor* is undertaking the works and keeping roads clean for use by general public.

S 208 Traffic Management

The *Contractor* shall be responsible for the provision and management of any traffic management measures, road closures and public highways closures. The cost of which should be incorporated into the compensation event for each project instructed.

S 209 Condition survey

The *Contractor* shall be responsible for any condition surveys, that is stated within the SID document, that need to be carried out by the *Contractor* and any associated reinstatement *works*. Surveys of surrounding buildings are advisable to ensure that our works have no impact on them. All survey information must be issued to the *Client* within 2 weeks of the survey being undertaken. The final survey report shall be stored in the BIM archive. (For example, it is advisable that the Black Sluice Pumping Station building itself be assessed.)

S 2010 Condition survey

The *Contractor* shall be responsible for the provision, management and keeping records of any condition surveys that need to be carried out to deliver the *works* including any associated reinstatement *works*. All information from the post and pre survey information should be issued to the *Client* and stored in the BIM archive.

S 2011 Consideration of Others

Work should be managed to minimise / avoid disturbance to the general public and occupiers of adjacent premises.

S 2012 Control of site personnel

See section 204 above.

S 2013 Site cleanliness

The *Contractor* shall be responsible for the provision and management of any Site and its welfare facilities. The standard of these should be of highest requirement to show that the site team feel valued in undertaking their duties.

S 2014 Waste materials

The *Contractor* shall reduce, reuse and recycle materials whenever possible and ensure that all waste is managed correctly. Removal of waste and restrictions on the disposal of waste material shall comply with legal requirements.

S 2015 Deleterious and hazardous materials

The *Client* is not aware currently of any restrictions on the use of deleterious and hazardous material on the Site, however the *Contractor* must carry out their own assessment and manage materials in accordance with the requirements.

S 300 *Contractor's* design

S 301 Design responsibility

Clause 21.1 shall be used when the *Client's* PMI requests that the *Contractor* shall be responsible for design of the permanent works.

S 302 Design submission procedures

Clause 21.2 and Clause 21.3 shall be used.

Clause 21.4, the contractor has to ensure that their design is supported by specification requirements, drawings and other relevant supporting documentation, for example buildability statements, risk assessment and method statements.

The *Contractor* shall allow the *Client* at least 2 weeks to agree any designs prior to implementation to allow for all the interested parties time to comment on the design.

S 303 Design approval from Others

Clause 27.1 Design checks and approval by Others must be anticipated. This requirement will be stated within the *Client's* PMI. This could include other departments within the EA that need to approve the design or our partners and other Risk Management Authorities.

The designs to be approved by the *Client* in consultation with either the Environment Agency's Mechanical and Electrical, Instrumentation, Control and Automation (MEICA) Team, Navigations Team or the FCRM Team for Engineering Assurance

S 304 *Client's* requirements

The *Client's* requirements for the parts of the *works* to be designed by the *Contractor* will include providing standards and guidance as requirement by the Environment Agency. Examples of this information are listed below:

- Specifications, including reference to relevant standards.
- Design standards and codes of practice.
- Size and/or space limitations.
- Loading and capacity requirements
- Operational performance requirements and design life.
- Planning drawings and planning consents.
- Energy consumption targets

- Environmental standards
- Sustainability requirements
- Design quality evaluation criteria
- *Client's* design reports
- *Client's* standard design guidance.
- Collection of permanent works design criteria for BIM archive
- Consideration of Carbon Tool outputs to inform design selection and methodology

S 305 Design co-ordination

For working on assets that do not belong to or operated by the Environment Agency, the *Contractor* shall co-ordinate with Others in preparing his design and any responsibility for the co-ordination of design by Others.

S 306 Requirements of Others

The *Contractor* shall support the *Client* in obtaining any and all approvals to undertake the *works*.

S 307 Copyright/licence

Clause 22.1 shall be used and any changes to this clause will be notified to the *Contractor* through the *Client's* PMI. The copyright/ licence of any *Contractor's* design shall be transferred to the *Client* where required to be used for future management and operation.

S 308 Access to information following Completion

All information in relation to providing the design, service and construction shall be stored within the *Client's* Common Data Environment (CDE) system prior to Completion. All information shall be stored in accordance with the timescales stated within Contract Data.

All relevant information required to operate and maintain the asset shall be transferred to the *Client*. The *Contractor* shall allow the *Client* to access information once the Defects Certificate is issued for a period of up to 6 years, including the timescale for the retention of any information after Completion.

S 309 Site investigations

The *Consultant* will scope works for the *Contractor* to complete to aid the design production. All SI / GI provision shall be clearly stated with the SID document and costs be included in the contract as a compensation event once specification known and can be valued.

1. The *Client* shall issue site information that is considered required for the works being undertaken. Where data is not able to be issued then see point 2 below.

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

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

4. The *Contractor* reviews and analyses the data within the Factual Report and prepares an Interpretative Report to support their detailed design. The *Contractor* provides the *Project Manager* with the final Interpretative Report in digital format. The *Contractor* may request this element of the service to be completed by the *Consultant*.

5. The *Contractor* informs the *Project Manager* of the proposed works a minimum two weeks before the investigation is undertaken and complies with the Access to the Site conditions.

S 400 Completion

S 401 Completion definition

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

- The *Contractor* will work with the CDM Principal Designer to provide 1 hard copy of the Health and Safety File and one electronic version. The Contractor is responsible for provide all information that is requested by the CDM Principal Designer.
- 1 hard copy of Operating and Maintenance Manuals and one electronic version.
- The *Contractor* shall provide all necessary input to allow Ove Arup and Partners Ltd or the *Consultant* to produce as-built drawings. 1 hard copy of As Built drawings and one electronic version.
- Population of the *Client's* latest version of the Project Cost Tool, or its successor
- Transfer to the *Client* databases of BIM data
- Delivery of the Final Carbon Report

Clause 11.2(2) Work to be done by the Completion Date.

S 402 Sectional Completion definition

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

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

- Transfer to the *Client* databases of BIM data.
- Delivery of carbon considerations within sub-programme agreement (anticipated to be baseline from (5.28t of carbon / £10k of capital expenditure).
- Completion and Delivery of Carbon optimisation report at the required stage prior to completion.

S 403 Training

Training required for the *Client* or Others and associated timescales, will be included with the SID document, so that it can be valued prior to the works being undertaken.

S 404 Final Clean

Details of final clean, removal of temporary structures, materials, protection and tools, will be included with the SID document, so that it can be valued prior to the works being undertaken.

S 405 Security

Details of security arrangements and handover at Completion, will be included with the SID document, so that it can be valued prior to the works being undertaken.

S 406 Correcting Defects

Procedures for access for the correction of any Defects and process for liaison with the *Project Manager* and *Client* , will be included with the SID document, so that it can be valued prior to the works being undertaken.

S 407 Pre-Completion arrangements

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

S 408 Take over

Identify parts of the *works* that the *Client* requires to use prior to Completion without taking it over, will be included with the SID document, so that it can be valued prior to the works being undertaken. Details to include

- Location of parts of the *works* and
- Reasons for use.
- Details of *Contractor's* access provision during periods of use.