Environment Agency
NEC4 professional service contract (PSC)
Scope

Project / contract information

Project name	Dunball Sluice Gates Refurbishment
Project 1B1S reference	ENV0000761C
Contract reference	
Date	21 October 2022
Version number	5
Author	[redacted]

Revision history

Revision date	Summary of changes	Version number
11/03/22	First issue	1
19/05/22	Updated issue	2
09/06/22	Updated issue ECC SS & ENCoW roles added	3
15/08/22	Updated issue	4
17/10/22	Amended during clarification phase	5

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

Document	Document Title	Version No	Issue date
LIT 13258	Minimum Technical Requirements	12	30/12/2021

1 Objectives of the project (project outcomes)

1.1 Objective

Dunball Sluice became operational in 1971 and acts as the outfall structure between the King's Sedgemoor Drain and the tidal River Parrett. The King's Sedgemoor Drain serves the Parrett Flood Relief Channel, protecting the urban area of Bridgwater and several villages within the Somerset Levels, including Northmoor, which flooded over several weeks in 2013/14. Dunball Sluice is critical to this function and to wider water management activities in the Somerset Levels and Moors area.

Dunball Sluice also forms a vital part of the sea defences for nationally and internationally designated freshwater habitats (which are protected by law) and controls flood flows from the Sowy River (the River Parrett Relief Channel) via the King's Sedgemoor Drain. This system provides protection to properties, farmland and infrastructure.

Dunball Sluice, a critical asset, is in a general poor state of repair which will inevitably lead to operational problems if no action is taken. Many MEICA components of the asset are close to, or at, the end of their working life and residual hazards present an ongoing safety risk to operatives.

The project seeks to maintain or improve the Standard of Protection afforded by the structure by increasing the residual life of components (mainly MEICA) nearing the end of their working life by a further 35 years. The asset is in a general poor state of repair which will inevitably lead to operational problems if no action is taken.

The objective of this project is to deliver engineering solutions for the defects which have been identified in order to maintain the Standard of Protection (SoP) currently provided and to continue the water level management function of the asset.

Outcome Specification

Design support during construction

The *Consultant* has produced the design and is wholly responsible under the Detail design commission to remedy any defect, fault or inadequacy in that design due to act or omission through the detailed design.

This contract is to respond to alterations required due to unforeseen circumstances on Site or additional instruction under this contract which will be dealt with as an instruction under this contract and evaluated using the Compensation Event process.

AD: Role of the Supervisor under an NEC4 ECC contract

The *Consultant* is to provide the service of an NEC4 ECC Supervisor to support the delivery of the works in accordance with the Environment Agency Safety, Health, Environment and Well-being Code of Practice (SHEW CoP), the Client's NEC4 Engineering and Construction Contract (NEC4 ECC) and Scope for the Dunball Sluice Gates Refurbishment project.

The Supervisor shall ensure that the Contractor complies with and fulfils their obligations set out in the *Client's* Scope and the ECC.
The Supervisor shall represent the *Client's* interests and priorities in ensuring, to the best of their ability, that the completion of the works achieves the Objectives shown above and delivers value for money.

The *service* shall include; supporting the construction team to monitor site set-up works and site clearance works; undertaking inspections of construction works and site reinstatements;

monitoring any surveys or other high risk environmental operations to ensure compliance with the Environmental Action Plan (EAP); and monitoring any H&S sensitive operations taking place on site.

AD: Environmental Clerk of Works (EnCoW)

The *Consultant* is to provide a designated Environmental Clerk of Works (EnCoW) to monitor the site set-up works, clearance works, construction works, and site reinstatement, and supervise any environmental surveys or environmental high risk works for the site.

1.2 *Consultant* project management

The overall management of this commission shall include for the following:

Representation at Commencement, Weekly co-ordination/update, Monthly progress / CEEQUAL reviews (Note: CEEQUAL Assessor 'lead' to be provided by Contractor with management, collation & submission of CEEQUAL assessment to be undertaken by Contractor) / risk register reviews / handover meeting attendance and management of actions as required.

Monthly financial updates and forecasts by the 8th of each month (or earlier) to meet EA deadlines together with the production of progress reports.

Co-operate with the *Client* in the role of the BIM Information Manager

Input into the review and update of the lessons learnt log during monthly progress meetings and disseminate any key lessons learnt to the business.

Project deliverables such as model files, survey data or anything of a personal nature such as questionnaires or address data must also be returned in an encrypted format using WinZip 128 bit encryption.

Provide input into updates the project efficiency register (CERT).

Consultant project manager to be responsible for delivery of the s*ervice* and products in line with accepted programme.

2 Project team

1 The design consultant is Atkins Ltd.

2 The ECC Contractor is Kier Integrated Services Ltd.

3 The ECC Project Manager is [redacted] from Arcadis Consulting Ltd.

4 The Contractor will be appointed using the NEC4 Engineering and Construction Contract (ECC) option C.

5 ECC Cost management will be provided by [redacted] from Arcadis Consulting Ltd.

6 Principal Designer is Atkins Ltd

3 *Consultant* provides the *service*

3.1 Design support during construction

The *Consultant* has produced the design and is wholly responsible under the Detail design commission to remedy any defect, fault or inadequacy in that design due to act or omission through the detailed design.

This contract is to respond to alterations required due to unforeseen circumstances on Site or additional instruction under this contract which will be dealt with as an instruction under this contract and evaluated using the Compensation Event process.

AD: In addition to the standard scope for design support during construction and as part of the *service* the *Consultant* is to provide the following services to the *Client* for the duration of this contract. This is not an exhaustive list and other services may be required. Additional agreed services will be instructed via a CE

- Visual inspection of mechanical components on site following their removal from the structure and provision of an initial assessment of whether refurbishment or replacement is required (the *Consultant* is to assess the number of visits required & provide details of their assumptions). The mechanical components to be inspected include:
    - Main sluice gates (8 No.). Inspection(s) to include gates, seals, runners, rollers, bearings, sprockets, chains & actuator support frames & mechanisms
    - Bypass culvert tilting weirs (2 No.) Inspection(s) to include weirs, seals, pivot pins/bushes, bearings & mechanisms
    - Bypass culvert penstocks (2 No). Inspection(s) to include penstocks, mechanisms, seals & frames
    - Main sluice tide flaps (4 No.). Inspection(s) to include flaps, seals, hinges, winches, cables and pulley systems
    - Bypass channel tide flaps (2 No.). Inspection(s) to include flaps, seals & hinges

- Counterweight baskets (5 No. chambers & 16 No. baskets). Inspection(s) to include chains, support brackets, idlers & mechanisms

- Visual inspection of the same mechanical components identified above (plus any additional ones not listed) once they have been cleaned & shot-blasted at the Contractor's nominated specialist sub-contractor's fabrication facility to confirm whether refurbishment or replacement is required (the *Consultant* is to assess the number of visits required & provide details of their assumptions). The *Consultant* should seek to minimise the individual number of visits required. The timing & number of visits is to be planned & agreed in-conjunction with the Contractor & ECC Project Manager so that a maximum number of components can be inspected during each visit.

- Review, comment & approval of Contractor's specialist sub-contractor's (MEICA, structural & civil) general arrangement & fabrication drawings, calculations and specifications in relation to the original ECC scope of works (refurbishment or replacement). In the event that additional reviews are required as a result of components originally identified to be refurbished needing replacement then a Compensation Event would apply.

3.2 Principal Designer

AD: The *Consultant* shall provide a Principal Designer as part of the design team, subject to the proposed person meeting the required criteria for the project, as assessed by the *Client*. Relevant information is to be submitted to the *Client* for this purpose. The appointed Principal Designer will undertake this role in accordance with the Construction (Design and Management) Regulations 2015.

AD: The *Consultant* shall produce the final Health and Safety File for the Scheme.

- 1 hard copy of Health and Safety File and one electronic version
- 1 hard copy of Operating and Maintenance Manuals and one electronic version.
- 1 hard copy of As Built drawings and one electronic version

3.3 Supervisor under the NEC4 ECC contract

AD: The *Consultant* shall provide a named individual to carry out the duties of Supervisor for the construction works as required by the Client's NEC4 Engineering and Construction Contract. The Supervisor shall maintain close contact with the ECC Project Manager and the *Client* in order that their actions reflect the *Client's* objectives for the project.

The Supervisor shall carry out their duties strictly in accordance with the *Client's* version of the ECC. Primarily this is to ensure the quality of works is in accordance with the *Client's* Scope.

The Supervisor shall ensure the works are undertaken in accordance with the Contract and shall issue Defect notifications when required.

The Supervisor shall receive and review method statements and risk assessments from the Contractor. The Supervisor shall alert the ECC Project Manager and Contractor of any concerns that arise from the reviews.

The Supervisor shall carry out additional duties as set out in Section 6.

Where there is the potential for delay to the construction programme the Supervisor shall inform the ECC Project Manager as soon as they become aware.

The Supervisor shall attend a start-up meeting, monthly ECC progress meetings, weekly ECC risk reduction meetings and other meetings as notified by the ECC Project Manager. The Supervisor shall visit the site once per week for the duration of the works. Changes to this assumption (either more or less visits) shall be a Compensation Event.

In making this appointment the Supervisor must be identified as a suitably qualified and competent person to undertake these duties on this project. In the event that circumstances arise where it is necessary on either a temporary or permanent basis to replace the Supervisor, details of another named and suitably qualified and competent person must be submitted for acceptance by the *Client*.

The Supervisor prepares weekly site reports using the template appended to this document. The Supervisor is to prepare and submit the weekly site report to the *Client's* project manager on Monday of the following week. The report is to include but is not limited to:

- Activities undertaken
- Plant and labour on site
- Planned and actual progress of the ECC contract and short-term review (last two and next two weeks)
- Record of tests and whether witnessed by the Supervisor, including:
    - Statement of the contractor's proposed offering for acceptance of elements of the works.
    - Record of acceptance of the works with statement of verification tests.
- Health, safety and welfare items
- Environmental items, including:
    - Statement of status of the site waste management plan
    - Record of Supervisor's checks in accordance with Item 5.
    - Statement of status of the environmental action plan
- Photographs of the works
- Contractor's updated risk assessment and method statement schedule
- The report will be circulated to the project team and uploaded to Asite.

The end of the service coincides with the ECC defects date. The Supervisor shall undertake a final site visit within one month of the ECC defects date. Defects will be reported to the ECC Project Manager. Further site visits to review Defect corrections are not part of this commission and will be instructed separately.

3.4 Environmental Clerk of Works

AD: The *Consultant* shall provide a designated Environmental Clerk of Works (EnCoW) to monitor the site set-up works, clearance works, construction works, and site reinstatement, and supervise any environmental surveys or environmental high risk works for the site.

The *Consultant* will undertake weekly audits during site set-up and the early stages of construction. The frequency of audits will reduce to once per month in agreement with the Client based on activities scheduled in the programme of work and Contractor performance. Changes to this assumption (either more or less visits) shall be a Compensation Event.

The *Consultant* shall have the following qualifications and certification:

- Professional membership of a recognised and appropriate chartered institute.
- An approved environmental auditing qualification recognised by the Institute of Environmental Management and Assessment (IEMA).
- Construction Skills Certification Scheme (CSCS) registered
- Those fulfilling the role must have a skill set to match the site's particular environmental requirements, therefore the EnCoW role could be provided by an experienced practitioner in many specialist environmental disciplines, including any of the following:
    - Ecology
    - Noise
    - Air quality

The *Consultant* shall have the following experience and skills:

- Understanding of construction processes, construction detailing and ordering of works on site.
- Understanding of contractual relationships and the implications of poor performance under a contract.
- A thorough knowledge of ecological sensitivities and opportunities.
- Familiarity with the Environment Agency, its internal structure and its public-facing responsibilities.
- Familiarity with the Environment Agency Safety Health Environment and Wellbeing (SHEW) Guidance document.
- Confidence and ability to resolve minor issues satisfactorily on site.
- Confidence and ability to escalate issues in the right manner, where appropriate.
- Environmental awareness of potential issues (including site specific mitigation, local residents' concerns, consultee comments, Contractor's Environmental Management Systems (EMS), general conditions of the site (fencing, tidiness), etc.) and an eye for detail and thoroughness to ensure best environmental standards.
- Proactive liaison and communication skills (verbal, written and graphic) to communicate with all members of the project team and stakeholders in a professional manner that positively represents the Environment Agency.
- Ability to pre-empt and prevent potential construction impacts on ecology and the environment.
- Ability to produce good quality site diaries and reports.
- Ability to evaluate information in order to assess the impact and predict mitigation and enhancements.
- Ability to work under own initiative to quickly and effectively resolve site issues / queries, but also recognise when assistance is required.

EnCoW Responsibilities

- Advising (not instructing) the Contractor; should the *Consultant* consider that an instruction is required, they shall advise the ECC Project Manager and *Client* immediately.
- Completing all actions assigned to the *Consultant* in the Environmental Action Plan (EAP).

- Ensuring that each action of the EAP is completed in the necessary timeframe by the party named in the 'Responsibility' column of the EAP for that action. The *Consultant* shall also ensure that the Contractor adheres to all other environmental legislation, the *Client's* environmental policies and the Client's SHE guidance standards.
- If there are non-conformances, the *Consultant* shall immediately inform the Supervisor who will notify a defect to the Contractor for corrective action within the timeframe identified by the *Consultant*. The non-conformance, action required, correction timeframe and completion shall be added to the EAP by the *Consultant*.
- Monitoring adherence by the Contractor to the Contractor's Environmental Management Systems and advising the *Client* of any incidences of non-compliance.
- In agreement with the Employer, the *Consultant* shall attend monthly progress meetings to update the team on compliance with EAP actions.
- As a minimum, the *Consultant* shall audit the site monthly, in advance of progress meetings recording audit details, including photos, on the 'Environmental Audit Record' appended to the EAP.

    - Audit reports will be provided to the *Service Manager*, ECC Project Manager, the Contractor and the FBG Area Team lead within a week of the audit visit, and in advance of the progress meeting. The *Consultant* will ensure all audit reports are uploaded to Asite Services within a week of the site visit.

- At the beginning of the Contract, the *Consultant* shall audit the site every 1 week for a minimum of 4 weeks. The frequency of audits will be reduced to monthly in agreement with the *Client* based on Contractor performance.
- Inputting to the Supervisor's Weekly Site Record on environmental matters, including bi-weekly monitoring of EAP actions, recording environmental issues / non-conformances, actions taken, and changes to design. Monitoring shall include inspecting the whole of the project working area on a monthly basis.
- The *Consultant* shall upload copies of site visit reports, monthly updates, incident reports, correction notices and EAP amendments to Asite Services.
- If applicable, the *Consultant* shall notify and assist the ECC Project Manager and *Client* with any environmental incidents for the duration of the *service*.
- The *Consultant* shall inform the *Client* upon completion of each section (i.e. Pre-construction, Construction and Post-construction) of the EAP actions and ensure that each section is signed off by the *Client*, Contractor and *Consultant*.
- The *Consultant* shall produce a short summary report at the end of the works to compare predicted effects against actual impacts of the temporary and permanent works. This shall be supported by photographic evidence, especially of the condition of the site upon completion of site reinstatement and shall be submitted to the *Client* and uploaded to Asite Services within 4 weeks of issue of the construction contract completion certificate.

4 Definition of completion and defects

1 Completion is only achieved when all of the *service* has been provided and accepted by the *Client.* Population of the *Client's* latest version of the Project Cost Tool, Carbon Tool and provision of BIM information is an absolute requirement of Completion.

2 A Defect is any part of the *service* provided which is not in accordance with the Scope, the law or acceptable good practice in the industry. This includes any part of the *services* which is not in accordance with the work practices stated as being employed by the *Consultant* to ensure the quality of their *service* is consistent with their quality plan.

5 Constraints on how the *consultant* provides the *service*

1 The named Supervisor is not to delegate their duties or powers without prior written agreement from the *Client*.

6 Standards to be achieved

6.1 Health and Safety Standards

Health, safety and welfare is of paramount importance to the *Client* and one of the objectives for the contract is that the works should be undertaken in a manner that achieves highest possible standards. Health, safety and welfare provisions must be seen as integral parts of carrying out the works and not as stand-alone considerations. The *Consultant* will take reasonable steps, when considering documents supplied to them by the Contractor, that the **management arrangements** adopted by the Contractor (or via the ECC Project Manager) for safety are suitable.

The *Client* is to arrange safe access to site with the Contractor and shall adhere to any health and safety requirement stipulated. The ECC requires the Contractor to produce a schedule of activities for which risk assessments and method statements must be prepared. The schedule and method statements will meet the dual requirements of the Construction Design and Management Regulations and the requirements of sub-clause 31.2 of the ECC contract.

The Contractor will be free to add to the schedule as the work progresses. Prior to the start of construction work, and again after any revisions prior to implementation of the revisions, the Contractor must forward the schedule to you, with the programme for acceptance.

The level of detail required will depend on the activity. As a minimum the Contractor must ensure that risk assessments and method statements are prepared and submitted for review in accordance with the ECC contract Scope covering:

- full, timing and sequence of construction including the use and design of temporary works, materials, plant and equipment proposed by the Contractor.
- Indication of activities that represent a higher-than-normal level of health and safety risk.

Some additional information may be required in respect of compliance with the Environmental Action Plan and the minimisation of environmental impacts of the activities.

Method statements supplied in support of the ECC contract Scope are to be formatted for the benefit of those personnel undertaking the works and contain language and detail appropriate for those individuals. They shall take account of experience, to ensure that account is taken of the matters identified above

In particular the Supervisor shall be required to:

- receive from the Contractor the schedule of risk assessments and method statements for acceptance before the start of construction work, or thereafter in the case of a proposal for a revision
- take reasonable steps to ensure that the persons carrying out risk assessment on behalf of the Contractor are competent for the type of risks, and have adequate resources including time, to properly consider, in an appropriate time, risks identified in the schedule
- take reasonable steps for ensuring the effectiveness of method statements as regards language, appropriate detail and quality of briefing arrangements for example by review at progress meetings of risk assessments and method statements to be employed for higher risk or unusual tasks in the coming period
- seek a more specialised opinion about the content of a submission from the Principal Designer, Service Manager and/or Programme and Contract Management Safety Advisor or Safety, Health and Environment Manager as appropriate
- ensure that the Contractor completes, updates and holds on behalf of the *Client*, the schedule of risk assessments and method statements
- co-operate with the Principal Designer

6.2 Co-operation with the Principal Designer

The *Consultant* shall provide a Principal Designer for this scheme. The Principal Designer duties will include for a review of any site based works and notifying the HSE of these, as well as a review of the design. The Principal Designer will comment and include for any work required following review. The Supervisor will co-operate with the Principal Designer.

AD: The *Consultant* shall produce the Health and Safety File for the scheme, based on the documents and drawings that were provided during detailed design and augmented with construction information that will be provided by the Contractor. The appointed Principal designer shall issue the final Health and Safety File for the scheme to the *Client* within four weeks of receiving the final construction information following completion of the works.

6.3 Specifications or standards to be used

AD: In managing the Contract the ECC Project Manager, the *Consultant* and Contractor will make full use of the *Client's* ECC standard commercial and contract forms that have been developed for this purpose. Some examples are:

- ECC Project Manager's Instruction [on FastDraft]
- contractor's Technical Query [on FastDraft]
- weekly Site Record [Client document ref 413_13_SD14]

The *Consultant* shall make full use of the *Client's* web-based project collaboration tools (FastDraft, CDC Hub and Asite Services). All contract records shall be distributed and stored using the relevant platform.

The *Consultant* shall make full use of and have suitably competent resources available to enable the environmental review of ECC Design Packages submitted which are likely to make reference to the design codes, standards and guidance notes.

6.4 Working with others

The *Consultant*, shall liaise with the Contractor to resolve any technical queries.

The *Consultant*, shall provide support for any relevant site visits by third parties as requested by the Client.

The *Consultant*, shall attend and support public engagement events, where required by the *Client*.

Newsletters will be produced by the *Client* for the full duration of the project. The *Consultant*, shall assist the *Client* in the production of these by supplying information and photos for inclusion as requested.

7 Requirements of the programme

7.1 Programme

The *Consultant* shall provide a detailed project plan in Microsoft project format version Office 2016 meeting all requirements of Cl.31 of the *Conditions of Contract*. A baseline plan shall be provided for the project start up meeting and this will be updated monthly for progress meetings with actual and forecast progress against the baseline.

The programme shall cover all the activities to be undertaken by the *Consultant* and other members of the project team. Include all major project milestones from commencement to the end of the reporting, consultation and approvals stage.

8 Services and other things provided by the *Client*

8.1 Data and information management and intellectual property rights

All of the data listed as being supplied to the supplier as part of this study remains the Intellectual Property of the *Client*.

8.2 Data custodianship

The data custodian for project deliverables from this commission will be the area PSO team.

8.3 Licensing information

Licences for LiDAR Data, Ordnance Survey mapping, model, survey, hydrometric and historical data will be provided to the *Consultant* upon award of this commission.

8.4 Metadata

The *Client* populates a metadata database called the Information Asset Register (IAR). It is a requirement that all information produced by modelling work is appropriately tagged with metadata. The *Client's* project manager will supply an IAR spreadsheet (and any supplementary local metadata requirements if appropriate) where all relevant metadata can be recorded and handed over on project completion.

8.5 Data security

All model and survey information will be provided to the supplier in an encrypted format (using WinZip 128 bit encryption) according to *Client* data security policy. It is expected that once the commission is completed, all the original data sent to the supplier, which is classed as commercially sensitive, is returned in an encrypted format using WinZip 128 bit encryption.

Project deliverables such as model files, survey data or anything of a personal nature such as questionnaires or address data must also be returned in an encrypted format using WinZip 128 bit encryption.

Further details regarding security measures will be discussed at the start-up meeting for this commission

8.6 Timesheets

Timesheets as normally utilised by the *Consultant* shall be submitted with fee notes unless otherwise agreed with the *Client's* project manager. Electronic submissions would be acceptable.

8.9 Payment procedure

Payment is subject to the procedure agreed in or under the framework

8.10 Quality

The quality management system complies with the requirements of ISO9001 and ISO14001.

Please detail any other requirements of the Quality Pan

Appendices

Appendix 1 BIM Protocol – Production and Delivery Table

All *Client* issued information referenced within the Information Delivery Plan requires verifying by the *Consultant* unless it is referenced elsewhere within the *Scope.*

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You need google chrome for this link to work. Once the table is completed it should be printed for issue in the tender document, so that the correct baseline position can be seen by tenderers and price