PSC scope template – design

NEC4 professional service contract (PSC)

412_13_SD05

Environment Agency

Project / contract information

Project name	Sutton Harbour
Project 1B1S reference	ENV0002555C
Contract reference	
Date	04/03/2021
Version number	5
Author	[redacted]

Revision history

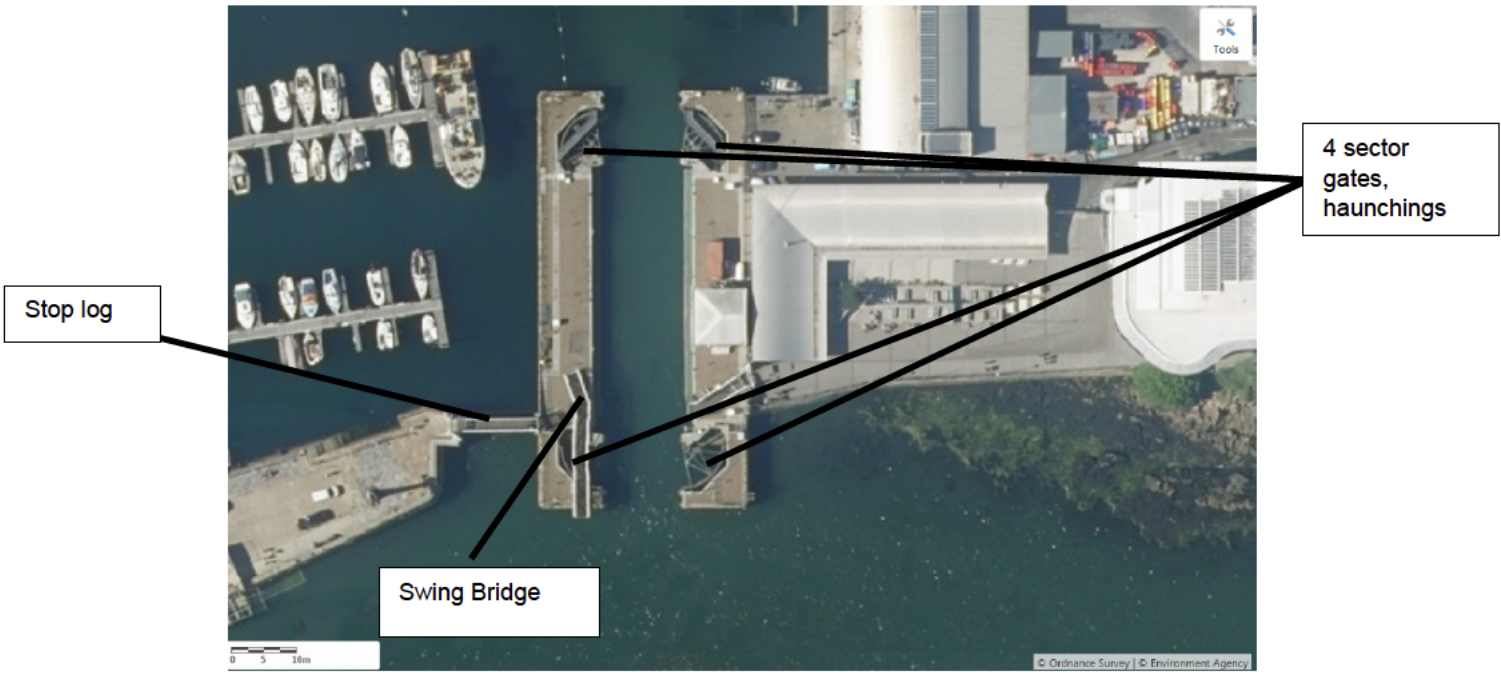
Revision date	Summary of changes	Version number
04/03/2021	First issue	1
01/04/2021	[redacted] Review	2
24/05/2021	[redacted] review following Atkins comments	3
02/06/2021	[redacted] review following [redacted] comments	4
18/06/2021	Update to include site supervision	5

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	Issue date
412_13_SD 01	Minimum Technical Requirements	https://adoddleak.asite.com/lnk/8qqjKqLSBx6XqqUz8Xa9	18/03/2020

Overview

Sutton Harbour (SX 48402 54011) is one of the main commercial and historic areas of Plymouth, containing 4 mixed-use and retail site allocations. The harbour includes a lock consisting of 4 sector gates, which allow passage of vessels into and out of the harbour. The haunchings and bottom seal arrangements on the sector gates are in need of replacement. Water has already damaged the haunchings resulting in significant leakage, and loss of support to the seal plates on all 4 sector gates, the damage in November 2020 was temporarily repaired with Soluform bags in November 2020. The defence level of the structure is 0.01% AEP, however if the gate is breached, local properties are unprotected. In total, there are 445 residential and 123 commercial properties that would be at risk of flooding in Sutton Harbour. It is a category A Strategically Important Asset. This project will comprise of replacing the bottom seal arrangements, made up of a haunching and seal carrier, and refurbishment of the stop logs. The haunching will be replaced with a metal structure that cannot be scoured by the sea, as is the case with the current civil structure.



A stop log gate is in place beside the sector gates, refurbishment is required for this to ensure that the design life will be 25 years from completion of this refurbishment (2021). The stop log is blocking the original entrance to the harbour, this will need shot blasting for refurbishment.
If the gates were to fail, be damaged or jam in the open or partially open position, the Barbican area will be immediately be at risk of potentially significant flooding. These repairs are therefore necessary to protect the local area to an appropriate standard
At low tide, the harbour would also dry, which would potentially cause damage to commercial and private craft in the harbour. If the gates were to jam in the closed position, the harbour would become non-operational as vessels could not pass through. The impounded water would stagnate and become an environmental risk. This is not necessarily an immediate risk as there are 2 sets of gates. The seaward gates are the flood defence and therefore the most important from a flood defence point of view, however, if these were to fail, the inner gate would be able to control the flow of water into the harbour. However there would be very significant commercial losses due to the lack of access to the fish market, as well as the possible impacts on the marina operation.

1.1 *Service* required

Objective

The objective of this project is to undertake the necessary repairs and refurbishment that will maintain the standard of protection (0.01% AEP) to aid prevention of flooding at Sutton Harbour. This will be according to the original design standard. To achieve this, the bottom seals and carriers will be replaced on the sector gates, alongside the haunching structure below the gates. The bottom wiper seals will be replaced with new seals, the current concrete haunching will be replaced with a metal structure that will not be affected by sea scour.

The stop log will also be refurbished by shot blasting and painted to MEICA Standard Specifications and Minimum Technical Requirements.

The *Consultant* will provide services supporting the delivery and design of new seals, carriers and haunching structure to replace the existing and maintain the standard of protection provided by the existing structure.

Outcome Specification

The *Consultant* shall deliver a detailed design of the Sutton Harbour seal and haunching repairs as necessary. The detailed design will enable the works to be priced, fabricated and constructed.

Working with the *Client* and Early Supplier Engagement (ESE) contractor, the *Consultant* shall be responsible for ensuring the design is acceptable to the *Client* and gain other associated approvals to enable works to commence. The design shall be acceptable to statutory and key stakeholders.

The design will ensure that the cost and quality of the construction work represents value for money and is affordable by the *Client* and within the agreed budget.

The *Consultant* shall also provide support services during the delivery phase of the project.

It should be noted that there is no possibility of dewatering the work area at any point of the project. Therefore, this may result in possible difficulties obtaining the level of accuracy that may have been obtained if dewatering had been possible . The design will need to take this into account and therefore provide means of adjustment or managing this reduced accuracy.

1.2 *Consultant* project management

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

Adhering to the project stages and timing of these stages and roles and responsibilities – in particular identifying those to be responsible for quality assurances that are removed from the day to day running of the project.

Agreement and management of change.

Attendance and on-going management of project risk and programme reviews to achieve the Scope.

Weekly teleconference, risk register review, update (including *Consultant* risk budget) and implementation of resulting actions.

Maintain and provide detailed and financial input to an efficiency register.

Commencement/ Weekly progress/handover meeting attendance and management of actions.

Provide weekly financial spend and forecast updates to the *Client*.

Monthly financial updates and forecasts by the 8th of each month (or earlier) 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.

Carbon calculations for both outline and construction completion.

Attend project board and programme board meetings as required in capacity as *Consultant*.

Consultant project manager to be responsible for delivery of the s*ervice* 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.

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.

Provide part time site supervision services to the *Client* upon construction commencement.

All model and survey information will be provided to the *Consultant* in an encrypted format (using WinZip 128 bit encryption) according to the *Client's* Data Security Policy. Once the commission is completed, all the original data sent to the *Consultant*, 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.

Buildability statement, giving design process, standards used and assumptions made to the satisfaction of the *Client*. This shall demonstrate compliance with the *Client*'s sustainability targets.

Checkpoint report, end stage report, end project report, exception reports (as required) in standard template giving progress against programme, deliverables received and expected and financial summary against programme as required.

1.3 Previous studies

A table defining a list of previous studies and records is shown in the document “Sutton Harbour Existing Records v1”.

1.4 Project Team

1 The design consultant is [redacted] - Atkins

2 The Contractor is [redacted] - Kier

3 The Client Project Manager is [redacted] – Environment Agency

4 The ECC PM is [redacted].

5 Cost management will be provided by the co-located cost manager

6 Principal Designer is [redacted] - Callsafe Services

7 The Environmental Clerk of Works is [redacted].

Service required

2.1 Definition of completion and defects

It is an absolute requirement of the contract that Completion is only certified when:

- All of the *services* have been provided and accepted by the *Client.*
- Transfer to the *Client's* databases of BIM data
- Completion of the relevant phase of the *Client's* carbon tool
- Clause 11.2(2) work to be done by the Completion Date.

A Defect is any part of the *service* provided which is not in accordance with the Scope or the law. A Defect is also any site query post completion that is a result of errors or incomplete design details.

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.

2.2 The detailed design (outputs and deliverables)

As part of the *service* the *Consultant* is to produce/provide the following outputs/deliverables. This is not an exhaustive list and other outputs may be required.

2.2.1 Detailed Design including drawings and specifications for construction of works.

The *Consultant* will complete a full detailed design, sufficient for a contractor to set out and construct the works. The detailed design shall include but is not be limited to:

i. Calculations
ii. Drawings
iii. Environmental Products – specifically an Environmental Action Plan (EAP)
iv. Specifications (including any additional clauses to Environment Agency standard specifications)
v. Design report, including asset schedule, buildability statement and maintenance plan
vi. Designer's Risk Assessments
vii. Pre-construction information
viii. Construction Contract documents
ix. Environmental action plan
x. Buildability report
xi. RAG list

The *Consultant* shall assist with pricing and buildability which will be led by the *Client*'s CCE and Early Supplier Engagement (ESE) Contractor respectively.

The *Consultant* shall discuss designs with the *Client* including the Field Service and Area Teams.
The *Consultant* shall discuss developments in the design with the appointed Principal Designer.
The *Consultant* shall prepare the Particular Specification for the main works construction document. The Particular Specification shall not contradict the *Client's* standard documents. If there is a requirement to do so the *Consultant* shall justify the need and obtain the prior written agreement of the *Client*.

2.3. Site Investigation

2.3.1 Ground and Underwater Investigation

- The *Consultant* shall check and utilise existing underwater investigation surveys and data and identify any further gaps for detailed design stage.

2.3.2 Topographic survey

Not used.

2.3.3 Services and diversion plan

The *Consultant* shall check existing data, identify any further gaps for detailed design stage and obtain services data from utility companies. This shall include direct costs of obtaining data.

2.3.4 Ecological surveys

Not used.

2.3.6 Hydrology and hydraulics

Not used.

2.3.7 Landscapes and Environmental design

Not used.

2.3.8 Environmental considerations

The *Consultant* will work with the *Client* and project partners to design and supervise the required repairs at Sutton Harbour through an adaptive approach that is resilient to climate change and that works with natural processes whilst:

i. Creating a better place and maximising environmental outcomes for people and wildlife, which includes landscape character, aesthetics, recreation, education, green infrastructure, navigation and heritage;
ii. Involving local people and organisations to assist in the process of developing the optimal solution;
iii. Minimising by designing out where possible, and mitigating for unavoidable adverse environmental effects as a result of the scheme;
iv. Minimising adverse impacts on economic activity, tourism, recreation and other human activity around Plymouth;

v. Supporting and contributing to outcomes that meet the objectives of the Water Framework Directive (WFD) for the relevant water bodies.

2.3.9 Delivery Phase

The *Consultant* shall provide support services during the delivery phase of the project comprising project management and responding to Technical Queries.

The *Consultant* shall provide part time supervision during the construction phase. The part time supervision shall be undertaken by reviewing dive videos issued to the *Consultant* by the *Contractor*. The *Consultant* shall specify the videos required at the start of the construction phase based on a programme and method of works provided by the *Contractor*.

If works are constructed in a safe dry working environment then part time site supervision shall be provided on site, for example works being undertaken within a cofferdam.

Based on the integrated programme (2021-06-03 - INT00 - Integrated Programme - Sutton Harbour) the level of supervision provided shall be as follows:

- Sill replacement works, gate patch repairs and side seal replacement of the inner gates scheduled 11 h October 2021 to 23rd November 2021 – depending on the method of construction.
    i. The *Consultant* shall provide two weeks full time supervision during this period to witness the gate repairs and fitting of the sill to the gate.
    ii. The *Consultant* shall provide three days a week supervision either side of (i) above, i.e. three days a week for four weeks.
- Sill replacement works, gate patch repairs and side seal replacement of the outer gates scheduled 6th December 2021 to 31st January 2022 – depending on the method of construction.
    iii. The *Consultant* shall provide two weeks full time supervision during this period to witness the gate repairs and fitting of the sill to the gate.
    iv. The *Consultant* shall provide three days a week supervision either side of (iii) above, i.e. three days a week for four weeks.
- Three days a week supervision during the emergency stop log refurbishment scheduled 7th February 2022 to 18th February 2022.

Standards to be used

3.1 Health and safety

Health and Safety is the number one priority of the *Client*. The *Consultant* will promote and adopt safe working methods and shall strive to deliver solutions that provide optimum safety to all.

3.2 *Client* standard documents

The *Consultant* shall carry out their design using the following standards.

Designs produced must be in compliance with the *Client* Minimum Technical Requirements
Contract Documents produced must be in compliance with latest *Client* standard template

Ref	Report Name	Where used
369_13	MEICA Standard specification and associated supporting documents. Live versions can be found on the Easinet	
17_17	MEICA Minimum technical requirements for Resilience, Fire and Security	
LIT 13258 - Minimum technical requirements	LIT 13258 - Minimum technical requirements	https://adoddleak.asite.com/lnk/8qqjKqLSBx6XqqUz8Xa9

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

Mandatory security and vetting procedures for *Consultant* staff with access to the *Client's* IT systems.
If in the performance of a Contract, the *Consultant* staff members are to have access to the *Client's* IT systems, the Contract will be subject to the following mandatory security and vetting procedure. This shall only apply to all Contracts for secondment of staff where access to the *Client's* IT systems is required

Verification of identity
The *Consultant* is responsible for verifying the identity of their staff prior to commencement of employment on the Contract. This includes the verification, copying and checking of the appropriate documentation:
- Confirmation of name, date of birth and address
- National Insurance number
- Confirmation of qualification/licences
- Confirmation of permission to work in the UK (if appropriate)

This information should be checked to ensure no obvious gaps exists and a copy kept on file.

Verification of nationality and immigration status
The *Consultant* is responsible for carrying out a physical check of appropriate documentation or (by exception) through an independent check of UK Border Agency (UKBA) records to ensure the individual has the right to remain in the UK and undertake the work in question. This needs to take place prior to commencement of employment.

Verification of employment history
The *Consultant* is responsible for verifying the candidates past 3 years employment history. Any unexplained gaps are to be brought to the attention of the *Service Manager* prior to commencement of employment.

Verification of criminal record (unspent convictions only)
The *Consultant* is responsible for verifying unspent criminal records using Basic Criminal Record (CRB) check provided by Disclosure Scotland (DS) prior to the commencement of employment. This also applies to all agency and sub-consultant staff. Any convictions, other than minor offences, are to be brought to the attention of the *Service Manager* prior to commencement of employment.
In exceptional circumstances the *Client* may decide to undertake a risk assessment where delays would impact on operation of business to allow an individual to start on conditional employment contract whilst waiting for results of the check.
Individuals with evidence of valid and live CRB, Counter Terrorist Check (CTC), Security Check (SC) or Developed Vetting (DV) clearance will not be required to undertake Baseline Personnel Security Standard (BPSS) clearance again (except proof of identity).

Keeping records
The *Consultant* should keep a BPSS verification record of each individual employed on such Contracts on the personal file. A standard form is provided by the Cabinet Office. Where individuals have valid and live clearance, this should be obtained in the form of the BPSS verification record from their previous organisation. There is no requirement to renew the BPSS once it has been approved. It is the responsibility of the *Consultant* to keep records for temporary agency and sub-consultant staff. The *Client* may audit the *Consultant*'s referencing and vetting processes upon request.

Time constraint
Due to the location of the works, construction cannot take place in the summer months based on the impact this would have increased traffic from pleasure vessels. The *service* must enable a construction period beginning in September 2021 to allow works completion prior to the winter conditions.

Requirements of the programme

5.1 Programme

The *Consultant* shall provide a detailed project plan in Microsoft project format 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 every two weeks 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 design stage and readiness to start on site.

Include appropriate review and consultation periods for drafts, scoping reports, statutory consultation etc.

The following consultation periods shall be incorporated into the programme, with adequate allowance for review and revision of documents by the project team where appropriate:

a) *Consultant* internal review (as per your quality review procedures) and *Client* review of all outputs.

Services and other things provided by the *Client*

6.1Data and information management and intellectual property rights

All of the data listed as being supplied to the *Consultant* as part of this study remains the IP of the *Client*.

6.2 Data custodianship

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

6.3 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.

6.4 Data management and 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* 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.

6.5 Data security

All model and survey information will be provided to the *Consultant* in an encrypted format (using WinZip 128 bit encryption) according to Environment Agency Data Security Policy. It is expected that once the commission is completed, all the original data sent to the *Consultant*, 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

6.6 Timesheets

Timesheets as normally utilised by the *Consultants* shall be submitted with fee notes unless otherwise agreed with the *Service* Manager. Electronic submissions would be acceptable.

6.7 Payment procedure

Payment is subject to the procedure agreed within this contract.

6.8 Quality

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

6.9 Parent company guarantee

Not required

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.*