Environment Agency
Site Specific Pack

Project name	Wessex Eel Passage Improvements (May 21)
Project SOP reference	ENV0002498C
Contract reference	32966
Site	Site A - Beer Wall (River Sowy) Tilting Weir
Date	21/06/2021
Version number	1.1
Author	[redacted]

Revision history

Revision date	Summary of changes	Version number
21/06/21	First issue	1
30/07/21	SSP update to exclude installation of control box and electrical connections	1.1

Non-returnable Documents

NEC4 Engineering and Construction Short Contract

Site Specific Pack

This Site Specific Pack should be read alongside the over-arching ECSC Data and Scope.

Contents List

SSP 100 Scope

SSP 200 Site Information

SSP 100 Scope

SECTION	SCOPE
S100	Description of the *works*
S200	Drawings
S300	Specifications
S400	Constraints on how the *Contracto*r Provides the Works
S500	Requirements of the programme
S600	Services and other things provided by the *Client*

S100 Description of the *works*

Background

Site A - Beer Wall (River Sowy) Tilting Weir (the Site) is located on the original River Sowy channel immediately upstream of the A372 at Beer Wall (NGR ST 39187 31527), and is currently an obstruction to eel passage (see Site Location Plan in Beer Wall Site Information **Appendix A**). An eel pass was previously installed on this structure at the time when the River Sowy and Langacre Rhyne were diverted through the new culvert arrangement at Beer Wall, however it has since detached, either a result of a design error i.e. inability to cope with high flows through the structure, or operator error or both (see Photographs in Beer Wall Site Information **Appendix B**).

A typical tilting weir eel pass replacement was considered, however ruled out for the following reasons

- Access into this structure to undertake maintenance activities on such an eel pass is a challenge, mainly resulting from its proximity to the road culvert, which is a confined space; and
- The location of the stop log grooves are close to the tilting weir itself, making installation problematic if needing to maintain the tilting weir/culvert i.e. a typical tilting weir eel pass would impede the installation of the stop logs.

To comply with the Eels (England and Wales) Regulations 2009, the *Client* has a legal obligation to ensure safe passage of eel past this obstruction, whilst having the ability to safely operate, inspect and maintain the eel pass in the future.

The *Client* has two main objectives for the Site.

1. To ensure safe passage of eels, and
2. To ensure that the eel pass can be safely operated, inspected and maintained.

To deliver the project objectives, the *Client* commissioned an eel pass specialist to design an acceptable solution for this site. The final design proposed a pumped eel pass (See Table 1 for drawing details).

The *works*

In conjunction with the over-arching ECSC Contract Data and Scope, the *Client* requires the following scope of works to be undertaken by the *Contractor*.

Beer Wall Pre-Construction Works

Prior to works commencing on site the *Contractor* shall:

- Attend the Site to gain an understanding of the Site constraints, specifically with regards access and buildability;

- Undertake a pre-construction ecological check of the Site to ensure no protected species (e.g. bats) will be affected by the construction works, and that there are no invasive species concerns. The ecological check is to be undertaken by an appropriately experienced ecologist, with experience of protected species and site supervision;
- Before any work commences on site, and based on the findings of the ecological walkover, the *Contractor* shall provide an ecological toolbox talk to their staff. To ensure any identified ecological constraints are appropriately actioned, the ecological toolbox talk should be undertaken by the ecologist who undertook the ecological walkover. The *Client's* project team are to be invited to the toolbox talk;
- Undertake a brief photographic pre-construction condition survey of all access points and access routes to the structure, and areas around the working area. Pre- construction condition survey is to be presented in a concise standalone document, with each photograph clearly and appropriately titled. The report is to be provided to the *Client* prior to works commencing at the site;
- Apply for and manage, using all reasonable endeavours, the application to obtain the Flood Risk Assessment Permit (FRAP) from the Environment Agency for any temporary works and for the installation of the eel pass. NOTE – Eel passes are normally exempt from FRAP requirements, however the Site is within 200m of the European designated site and as such will require a FRAP. Initial discussions with Natural England indicate that the works can be undertaken at this site during the early wintering bird season i.e. November.
- Fabricate all of the eel pass design elements as per the *Client* approved construction drawings; and
- Liaise with the *Client's* project team and Residential Principal Designer to develop and gain *Client* approval on:
    - Construction Phase Plan (CPP), Traffic Management Plan, Risk Assessments and Method Statements (RAMS) and Temporary Works. Refer to the overarching Eel Project Package ECSC for further details.

<u>Beer Wall Construction Works</u>

To deliver the works the *Contractor* shall, in accordance with the *Client* approved Detailed Design, CPP and RAMS:

- Mobilise to site and set up the working area, storage area and safety signage (refer to the Site Redline Boundary and Access Plan in the Beer Wall Scope Documents);
- Install *Client* accepted temporary works (where required);
- Install the *Client* approved and consented eel pass design

  NOTE
    - The Eel pass control box and all electrical connections will be installed/undertaken by the *Clients* MEICA team. In accordance to the *Clients* 369_13 MEICA Standard Specification and supplementary documents, the *Contractor* is to provide the pump and suitable and sufficient cabling from the pump to the control box, (refer to overarching Eel Project Package ECSC for details).
    - the supplementary documents set out the minimum technical specification to be followed and must be read in conjunction with standard specification.
- Make good the Site and reseed/repair any scarred ground as required.

Beer Wall Post-Construction Works

The *Contractor* shall liaise with the *Client's* project team and CDM Principal Designer, to provide:

- Clearly annotated/marked up drawings, with any deviations from the design captured accordingly to enable the designer to produce 'as constructed' drawings;
- Construction information required to update the CDM Health and Safety File for the Site. The Health and Safety File information for the relevant sections is/are to be provided in an editable digital format;
- A Beer Wall Pumped Eel Pass Operation and Maintenance Manual, which includes an agreed maintenance protocol. Maintenance protocol to be advised by the *Clients* FBG representative. An example Eel Pass Operation and Maintenance Manual and Maintenance schedule has been provided as an example (see Over-arching ECSC Scope Documents); and
- A separate electronic folder containing appropriately titled photographs of the works pre-, during and post- construction.

S200 Drawings

The *Client* has provided the following Construction drawings that can be found in Beer Wall Scope Documents

Table 1: Beer Wall Detailed Design Drawings

Drawing No.	Project No.	Issue No.	Title
101	0291	C01	Detailed Design Plan View
102	0291	C01	Detailed Design Long Section – Upstream and Slab Detail
103	0291	C01	Detailed Design Long Section - Downstream
104	0291	C01	Detailed Design Plan View on Wall Top
105	0291	C01	Bespoke Eel Pass Box at Culvert Entrance
106	0291	C01	Detailed Design Bespoke Box Parts (1)
107	0291	C01	Detailed Design Bespoke Box Parts (2)
108	0291	C01	Detailed Design Spray Box
109	0291	C01	Detailed Design Eel Pass Sections
110	0291	C01	Detailed Design Eel Pass Small Sections
111	0291	C02	Detailed Design Pump Sump

S300 Specifications

Refer to general specifications section in the over-arching NEC4 ECSC Data and Scope

S400 General Constraints (to be read in conjunction with the over-arching NEC4 ECSC Scope)

1. The access date for this *site* to commence construction will be from September 2021
2. The *Employer's* Estates team will identify landowners and carry out landowner negotiations
3. Works and access should take into consideration the potential presence of protected species and invasive species (refer to the Wessex Eel Passage Improvements (May 21) Environmental Action Plan (EAP) in the over-arching ECSC Scope Documents)
4. The A372 road culvert, within which a section of the eel pass is to be installed, is classed as a confined space. Only staff with appropriate confined space training will be able to undertake works within the confined space.

S500 Programme

The *Contractor* shall submit a site specific programme with the *Contractor*'s Offer for acceptance.

As this is normally an Exempt FRAP activity, the FRAP application will be a simple, shortened FRAP process. The *Contractor* should allow a 6 week FRAP application period within the Beer Wall Site Specific Programme.

Refer to Programme section in the over-arching Contract Data and Scope for general details to be included within each programme the *Contractor* submits.

NOTE - The *Contractor*s site specific programme is to be reviewed and updated where required upon contract award, then further updated monthly and provided to the *Client* for acceptance.

S600 Services and others things provided by the *Client*

Item	**Date by which it will be provided**
Services check	See over-arching NEC4 ECSC Contract Data and Scope for details
Access to the Site for initial surveys and investigation	Contract award
Access to the Site for installation	Min 2 weeks prior to start on site
Redirecting of flow from the original River Sowy channel through the new River Sowy Channel. NOTE - this will not remove the water from upstream of the tilting weir, but will prevent flow over the raised tilting weir	On day of installation
Habitats Regulations Assessment consent	Min 2 weeks prior to start on site

SSP 200 Site Information

SECTION	SCOPE
SI100	*Site* location
SI200	Reports and surveys
SI300	Site Drawings
SI400	Buried pipes, services and other objects
SI500	Buildings, structures and other things adjacent to the Site
SI600	Health and safety information

Checklist	Description of possible content

SI100 Site location

Beer Wall (River Sowy) tilting weir is a water level control structure located on the original River Sowy channel (NGR ST 39187 31527), immediately adjacent to the A372 near Othery (see Site Location Plan in Site Information **Appendix A**).

In 2015 the River Sowy was diverted along with the Langacre Rhyne, through two new culverts under the A372. The original Langacre Rhyne was blocked off, however the original River Sowy Channel remained connected. As part of these works a tilting weir eel pass was installed, however it soon broke off.

With power available at this site a pumped eel pass was selected as the preferred option.

The Site is located approximately 50 m outside of the Somerset Levels and Moors Special Area of Conservation (SPA) and the Kings Sedgemoor Site of Special Scientific Interest (SSSI)

SI200 Reports and surveys

Survey Doc No.	Title	Location
A20-035-01	Beer Wall Tilting Weir Topographic survey	Site Information **Appendix B**

Site investigation information from the 2015 Beer Wall works and Hydrographic and hydrological data is available on request.

SI300 Site Drawings

Drawing No.	Title	Location
2292/1	Beer Wall Penning Structure – General Arrangement	Site Information **Appendix C**
2292/3	Beer Wall Details of Tail Bay	Site Information **Appendix C**
2292/4	Beer Wall Penning Structure - RC details of Entry Bay	Site Information **Appendix C**
G27510/2	Arrangement of Operating Gear	Site Information **Appendix C**
G27508/5A	General Arrangement of Tilting Gate	Site Information **Appendix C**

SI400 Public Information

None provided

SI500 Buried pipes, services and other objects

A desk based services check has been undertaken. Details of the utility companies that have been searched can be found in Site Information **Appendix D**.

An underground Low Voltage cable has been identified within the Site boundary and has been identified within the design and associated designers risk assessment (DRA). No other services were returned within the Site boundary.

Note that this is not an exhaustive search and the information provided does not remove the Principal Contractor or *Contractor*'s requirement to carry out safe working practices in relation to overhead and underground services.

SI600 Buildings, structures and other things adjacent to the Site

The Site is immediately adjacent to the busy A372.

The tilting weir has a control house on the left bank side of the structure. New tilting weirs on the second Sowy arm is located approximately 50m to the east, with the Langacre Rhyne tilting weir located a further 25m east. No other buildings/structures are present.

SI700 Health and safety information

No Health and Safety File is available for this structure. There is a draft version Health and Safety File for the nearby structures, however a new short style CDM Health and Safety File for the Site will be produced by the Principal Designer with input from the *Contractor*.