Environment Agency
NEC4 engineering and construction contract (ECC)
Scope

Project / contract information

Project name	ENVMIOS Highway Dam
Project SOP reference	ENV0002591C
Contract reference	TBC
Date	July 2022
Version number	5
Author	Atkins

Revision history

Revision date	Summary of changes	Version number
06/04/2022	Draft issue for comment	1
12/05/2022	Updated following comments from AP/AB	2
05/07/2022	Client to procure and install the penstocks, cabling and raised platform	3
17/08/2022	Appendix A – asite link updated	4
15/09/2022	Updated clauses in line with clarification log and Ian Wright comments	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 *works* are to be compliant with the following version of the Minimum Technical Requirements:

Document	Document Title	Version No	Issue date
LIT 13258	Minimum Technical Requirements	V12.0	30 Dec 2021

Contents List

S 100 Description of the *works*

S 101 Description of the *works*

St Blazey flood storage reservoir (FSR) is retained by Highway dam and forms, with Treesmill FSR, part of the Par flood alleviation scheme built in 1976.

St. Blazey FSR has a capacity of approximately 155,000m^3 and is retained by a dam which retains water 1.9m high above the flood plain. It was constructed in 1976, but not registered as a reservoir until 1995. The spillway was upgraded in 2007, culvert lined with GRP liner in 2010 and further works to the spillway in 2016. The reservoir is also retained by a single-track railway embankment carrying the Atlantic line from Par to Newquay. This railway embankment was not designed to retain the reservoir.

The drawings describing the *works* are included in Appendix 7.

The *works* are to discontinue Highway Dam by removing the outlet structure and re-profiling the embankment on the alignment of the Treffry Canal. The *works* include an upgrade to the penstocks on Treesmill Dam outlet structure.

The baseline setting out information is included on the drawings. The *Contractor* will establish these lines on the Site and confirm the position with the *Supervisor* before commencement of any of the *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

The primary objective of the project is to ensure the *Client* has addressed all of the 'measures to be taken in the interests of safety (MIOS)' that are raised in the Section 10 (S10) report dated November 19.

The purpose of The Reservoirs Act 1975 is to ensure adequate safety in the design, construction and operation of a large raised reservoir. As the Undertaker for a large raised reservoir, the Environment Agency is responsible for the safety of that reservoir under the provisions of the Act. As such, the Environment Agency has a legal obligation to carry out the recommended improvements within the fixed timeframes identified by the Inspecting Engineer.

The required outcome is to discontinue Highway Dam and provide the *works* as shown on the drawings.

The *Contractor* shall ensure that the *works* are compliant with all specifications.

The *Contractor* shall work collaboratively with relevant stakeholders to provide the *works*.

The *Contractor* shall be responsible for ensuring the *works* are acceptable to the *Client* and acceptable to statutory stakeholders.

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

S 201 General constraints

The *Contractor* is to comply with the Environmental Permit and the Environmental Action Plan (See Appendix 6).

The *Contractor* shall also comply with the following constraints in addition to those identified in the Minimum Technical Requirements, where these are in conflict, the below constraints take precedence.

The *Client* is responsible for:

1. obtaining environmental permits for the proposed permanent works; and
2. obtaining permission from the landowners to use the Site for the purposes of the *works*.

The *Contractor* shall assist the *Client* in any activities required to meet the *Client's* programming requirements to obtain these permissions and permits.

Any temporary works proposed by the *Contractor* must take account of the Landowner requirements as described in S907.

Use of the Site

The *boundaries of the site* are shown on drawing ENV0002591C-ATK-00-3HD-DR-C-000004 in Appendix 7.

Flood response

The *Contractor* shall ensure flood response mechanisms with 24 hour a day 7 days a week contacts are in place throughout construction to ensure that in the event of flooding, plant and equipment can be removed from the channel and channel sides and working areas can be flooded out to allow maximum conveyance possible.

The *Contractor* shall register with the Environment Agency's Area Flood Warning team before commencing work onsite and provide them with telephone and/or fax numbers where Flood Warnings can be sent. The *Contractor* shall consult with the Environment Agency's Area Flood Resilience team to arrange this facility. The *Contractor* shall consult with the Environment Agency Asset Performance team on developing any temporary works which form a temporary flood defence prior to submitting their Environmental Permit. Specific focus will be required at the tie in detail between the existing defence and the temporary defence. The *Contractor* shall plan for a robust 24 hour a day 7 days a week emergency response where required to ensure flood risk is not increased by the *works*.

In the event of any emergency 24/7 response requirements the *Contractor* shall act in accordance with any emergency instructions received from the C*lient* or the *Project Manager*. A *Project Managers* instruction shall follow this emergency instruction to formalise the work as a change to the Scope.

The *Contractor* shall only use the Site for purposes connected with the outcomes and deliverables stated in S 102.

Locations for the main and satellite compounds are within the *boundaries of the site* and shall be provided by the *Client* to suit the Programme. Provision of these shall be the responsibility of the *Client*. Should any additional compounds be identified by the *Contractor* then the *Contractor* shall submit their proposals to the *Project Manager* for acceptance.

- Treesmill dam compound areas shall not be located on the dam embankments to prevent damage to the embankment / grass cover. If any damage occurs this shall be repaired.

- Highway Dam storage area shall be outside of the flood plain.

The *Contractor* shall install bank protection works and landscaping as shown on the drawings in Appendix 7. Re-work and/ or reconstruction of the works undertaken as required following a flood event will be a *Client* risk. After any significant flood event the bank protection works and landscaped areas are to be inspected and repairs undertaken as required. Temporary protection measures are not required on the site.

Working hours

The working hours shall be limited to those noted under the Minimum Technical Requirements.

Access to the Site

The *Client* shall obtain consents necessary for accessing the Site where notices are to be served to private landowners.

The *Contractor* is to maintain safe access routes for public, local landowners, properties and businesses during the contract period where it is feasible. Where it is not feasible the *Contractor* shall assist the *Client* in all engagement with the landowner to reach an acceptable agreement. Any additional works associated with the agreement to facilitate the landowner is not included in the Scope. The programme and methods of working developed by the *Contractor* shall ensure that this requirement is met.

The *Contractor* shall not gain access to any occupied premises or third-party land without the prior written agreement of the *Client's* Estates Team.

Access to Treesmill Dam western penstocks is shown on the drawings in Appendix 7. It is known that a 10m exclusion zone cannot be achieved around the Oak tree adjacent to the field gate on the access route. Bat surveys are currently underway to confirm if a bat licence is required in order to lift the 10m exclusion zone.

Parking

The *Contractor* shall provide adequate parking for Site-based personnel and visitors within the main compound. No parking is allowed outside these areas unless the *Contractor,* via a request through the *Client*, enters into specific agreements with Landowners and/or Authorities. The *Contractor* shall be responsible for obtaining any required consents for parking areas outside the agreed Site compound.

Only vehicles essential for the construction work shall enter the Site.

In-channel working

In channel working is defined as anything that physically affects the biodiversity of a watercourse and includes all of the channel (including flood defences) that flow is contained in prior to spilling onto the flood plain.

No in-channel working is permitted between 01 October to 01 June, and any works that require the creation of a dry working area spanning the width of the channel shall be restricted from 01 July to 30 September inclusive. Any deviation from these dates shall be subject to agreement by the *Project Manager* and the Environment Agency (as regulator).

The *Contractor* shall avoid in-channel works wherever practical. If this is not practical, the following in-channel works in the Treffry Canal shall be allowed as detailed in the Environmental Permit. If the Contractor wishes to change the working method in the Environmental Permit then they shall provide the required Environmental Permit. The following measures for controlling flow shall be implemented.

Treffry Canal

- Flows will be diverted from the leat into the river at Ponts Mill. The operation of Ponts Mill will be undertaken by Environment Agency. The existing operating procedure will become redundant on the day the *Contractor* commences decommissioning of the dam. From that point onwards the Environment Agency will not operate penstocks at Pontsmill or the Highway Dam in a flood event but instead shall follow their Abnormal Operation Plan. Refer to the Site Information (ENV0002591C-ATK-00-3ZZ-RP-Z-000001) for information on the Abnormal Operation Plan. The *Contractor* shall liaise with the Environment Agency Senior User to ensure effective communication is facilitated for out of hours flood events.
- On receipt of a flood alert for the St Austell and Par Rivers, a level of 1.4m AOD in the River Par, the Ponts Mill penstocks shall be returned to their 'normal' operating positions of one closed and one at 150mm, to allow the system to operate as proposed. Any further inflows to the site will be from the Ponts Mill overland flow route when the River Par reaches 1.92m AOD. The remaining flow will be flumed locally along the length of the leat (no greater than 30m at any one time), keeping the flume pipe tight to the near side of the watercourse.

Dry in-channel working area shall be kept to the minimum required to complete the *works*.

Where in-channel working is required, the *Contractor* shall submit method statements to the *Project Manager*, for acceptance a minimum of 3 weeks prior to agreed activity unless agreed otherwise with the *Project Manager*. This does not negate the requirement for the *Contractor* to obtain Environmental Permits for the temporary works.

The method statements shall include best practice methodology relating to pollution prevention and silt management and the following specific measures:

1. Installation of flumes

   The use of flumes is preferable to the use of pumps. Flumes shall be sized to manage the required flow and not take up more than one third of the channel width. No screen is to be fitted.

   Fluming shall be limited to a 30m stretch of the watercourse at each asset location with flume length minimised as far as is practical.

2. Ecological Supervision

   For all in-channel works where the flow is being managed scheduling shall be agreed with the *Project Manager* to ensure the ECoW attendance to monitor the aquatic habitats in the Working Areas and location and along the watercourse.

3. Fish Rescue

   Fish must not be harmed during any of the construction activities. Fish rescue measures are to be agreed with the *Project Manager* and implemented by the *Contractor* as required to deliver the *works*.

   The *Contractor* shall attend toolbox talks carried out by the ECoW for all staff working on Site to ensure they are aware of who to contact should they notice trapped fish.

4. Dissolved Oxygen (DO) monitoring

Reducing the flow and disturbing/mobilising sediment within the rivers has the potential to cause de-oxygenation of the water if flow is ponded, affecting aquatic ecology. If the flow is being managed at Ponts Mill by the *Contractor*, DO monitoring shall be required.

DO levels shall be monitored immediately upstream and downstream of the working area and at an additional location further upstream of the working area agreed with the ECoW. Sensors are required to be deployed upstream of Ponts Mill to provide baseline data. Intervention shall only be required if the works result in a decrease in DO.

If levels fall below 7mg/l (and/or 70% oxygen saturation) intervention shall be required to reduce the risk of fish mortality. Advice shall be sought immediately from the ECoW.

DO Monitoring shall be carried out continuously using remote sensors with an alarm system in place, with results being reviewed at least every 3 hours to identify developing trends. In warmer periods, when water temperatures exceed 16oC review of results shall increase to at least every hour.

DO monitoring shall be in place for any works where silt management is required. As above, DO needs to be monitored immediately upstream and downstream of the working area, and upstream of the most northern working area to determine a baseline agreed with the ECoW based on reference to site measured values for similar flows prior to work commencing. If a change in DO downstream of works of at least 10% of the baseline is observed, or if it drops below 7mg/l (and/or 70% oxygen saturation) then intervention shall be required by the *Contractor* to increase flow through the channel.

Where possible temporary works can remain in place providing DO levels show an improvement within 1 hour of flow being increased. If this does not happen work shall cease, and natural flow shall be restored immediately.

The *Contractor* shall not be responsible for any dissolved oxygen levels below acceptable thresholds due to other causes outside their control.

Trees/vegetation

Construction works are to adhere to BS 5837 '*Guide for trees in relation to construction*' and BS 3998:2010 '*Tree work. Recommendations'*. No clearance of trees or scrub is permitted without approval from the *Project Manager*.

To minimise unnecessary damage or loss to vegetation, the Site shall be accessed by a defined access route which is to be agreed as part of the *Contractor's* method statement.

The *Contractor* shall minimise the impact on existing vegetation across the Site and shall install tree protection fencing where trees could be impacted by the *works* as agreed with ECoW.

The *Contractor* shall submit proposals for the removal of any trees, branches, hedges, fences, or gates, either temporary or permanent, and proposals for replacement to the *Project Manager* for acceptance.

The *Contractor* shall retain trees, shrubs and vegetation on the Site. No trees shall be removed without the prior written agreement of the *Project Manager* if not shown in the EAP.

Any trees, shrubs or vegetation areas found to have been removed without agreement shall be replaced by the *Contractor* at no additional cost to the *Client*. The replacement shall be of the same species and equal in size and maturity to that of the tree removed or create a similar mature impact and will require acceptance from the Project Manager.

The *Contractor* shall make proposals where trees and vegetation removal is not defined but required to acceptance of the *Project Manager*.

Debris burning shall not be permitted under any circumstances without the prior written approval from the *Project Manager.*

Maintenance of Landscaping

The landscaping works included in this scope comprising topsoil preparation, cultivation, grass seeding, initial grass establishment and tree and shrub planting shall be undertaken by an experience and accredited 'full member' of the British Association of Landscape Industries (BALI) who is experienced in the type of works and establishment works proposed unless agreed in advance with the Project Manager.

Tree and shrub capital establishment maintenance shall be undertaken by the *Contractor* for a period of 2 years as set out in the Contract Data and should all be in accordance with the Landscape Specification for Landscape Works and Establishment Works in Appendix 5. The *Contractor* will provide this maintenance requirement alongside the Defects period for landscaping which will include the replacement of any trees, shrubs, grass and plants that die with a similar species and age of plant.

Damage to Trees

All damage to trees shall be reported to the *Project Manager* and the *Contractor* shall replace any tree that dies or is damaged because of its operations with one or more trees of the same or similar approved species to give an equivalent mature effect. Branches of trees likely to interfere with the working of equipment shall be tied back or removed at an early stage if required by a qualified tree surgeon. Any tree damaged because of the *Contractor*'s operations shall be pruned back where necessary to encourage growth, and rough edges cleaned off with a sharp implement by an approved tree surgeon in accordance with BS 3998. Any scarred area cuts or wounds are to be treated with an approved fungicidal sealant within 24 hours.

Other Ecological constraints

The *Contractor* shall programme any tree, vegetation and scrub/shrub clearance outside of the bird nesting season (01 February to 31 August). If this is not possible then no removal can take place until a nesting bird survey has been undertaken by a qualified ecologist no more than 48 hours prior to vegetation removal to confirm that no nesting birds are present (to be arranged by the *Contractor*) and accepted by the *Project Manager*.

Should site conditions be found to be different to those recorded in the Environmental Action Plan upon the *Contractors* pre-construction ecological survey then the *Contractor* shall propose suitable alternatives to the acceptance of the *Client*.

The *Contractor* shall ensure that any vegetation clearance undertaken during the reptile active period (01 March – 30 September) in areas identified as suitable for common reptiles as specified in the EAP, in order to discourage reptiles away from Working Areas.

No work shall take place at the location of the Treesmill eastern kiosk within 1 hour of dusk or dawn from 1st March to 1st December due to the presence of bats.

The *Contractor* shall programme any in-channel works outside of the fish-embargo period (01 October to the 01 June) to avoid disruption to migratory fish. If this is not possible then agreement from the *Project Manager* will need to be sought, in consultation with the Environment Agency Fisheries technical specialists.

Environmental Mitigation

The *Contractor* shall comply with the Environmental Action Plan (EAP).

The *Contractor* shall be responsible for excavating, setting aside and subsequently reinstating suitable material following the completion of the *works*. Vegetation for reinstatement shall be stored in a protected area away from plant movement and other material storage until required for replanting.

The *Contractor* shall be responsible for all permits, permissions and costs associated with removal and disposal of surplus material, and compliance with best practice for disposal of material.

All planting and seeding shall be in accordance with the landscape specification (see Appendix 5).

The *Contractor* shall appoint a landscape sub-Contractor who is BALI registered (https://www.bali.org.uk/members/code-of-conduct).

Storage of Plant and Materials, fuel and chemicals

All Plant and Materials shall be carefully and properly stored in accordance with the suppliers' or manufacturers' instructions and directions.

Any Plant or Materials that are found to be damaged, or that have suffered deterioration for any reasons whatsoever, shall not be incorporated in the *works*. The Plant and Materials shall be removed from the Site forthwith and shall be replaced with Plant and Materials that comply with the Scope.

The *Contractor* shall not make use of public highways, thoroughfares or footpaths for depositing and storing Plant and Materials but shall make provision for the proper storage and protection of all Plant and Materials on the Site at locations accepted by the *Project Manager*. All such provisions shall be removed at completion and any disturbance made good.

The *Contractor* shall maintain a detailed record of all Plant and Materials received on the Site and in its stores or storage and Working Areas in the vicinity of the Site and shall make such records available to the *Project Manager* and *Supervisor* at such times as the latter may require.

Pollution, ecological and environmental impacts

The *Client* is committed to the environmental principles of stewardship and sustainability and has corporate goals to maintain and enhance the water environment. The *Contractor* shall provide the *works* in accordance with environmental best practice.

The *Contractor* shall comply with all current and relevant environmental legislation, guidance and other such documentation referenced in the EAP.

The *Contractor* shall use reasonable endeavours, plan and order all their activities to achieve the following:

i. Avoidance of pollution of any waters (surface or underground). In the event of a watercourse being polluted as a result of the work, the *Contractor* shall be responsible for taking immediate action to prevent the pollution spreading downstream and shall immediately report any incident to the Environment Agency;

ii. Avoidance of pollution of any land;

iii. Preservation of flora and fauna.

Archaeological requirements

The Site has been assessed as low likelihood of finding Archaeological remains. The *Contractor* shall not allow for any mitigation works, pre-investigative works or delay that is directly accountable to an archaeological find.

The *Contractor* shall immediately inform the *Project Manager* if any items thought to be of archaeological importance are discovered. In the event of unexpected archaeological finds being encountered work shall stop on any part of the Site that could be associated with the archaeological find until *Project Manager* has advised that work can recommence.

Existing Structures and Infrastructure

The *Contractor* shall carefully consider the location of construction plant with regard to the existing structures and infrastructure to minimise risk to stability. Prior to site work being undertaken the *Contractor* shall agree with *the Project Manager* and record on a tracker showing where and what will be surveyed and recorded by photograph, video or inspection to ensure evidence before and after construction is held. The *Contractor* shall be responsible for all repairs to any damage to existing structures within the *boundaries of the site* which result from their undertakings due to their lack of care, poor planning or negligence. All repairs shall be proposed to and accepted by the *Project Manager* prior to repair being undertaken.

.

The surround to the twin culverts through the dam is unknown. It is assumed to be granular. This is a Client risk.

Clause 80.1 and 81.1 of the NEC4 ECC take precedent over clause 1.31 of the Minimum Technical Requirements.

Removal of Temporary Works During Flooding

Removal of the Highway Dam could temporarily increase flood risk to properties outside of the *boundaries of the site* until the Par St Blazey flood defence scheme is complete. This is a *Client* risk. As a large raised reservoir under the Reservoirs act one of the significant risks is release of stored floodwater during excavation to remove the dam. The excavation should only be commenced at a period of good weather, and when it can be completed rapidly in a single operation. In addition the Method statement and programme for earthworks removal must be consented by the Reservoirs act Panel engineer before work commences.

All storage of Plant and Materials shall be positioned so as not to increase flood risk.

All temporary works shall be designed so as to consider flood risk. This may require mitigation plans being implemented on receiving of increased river levels / rainfall.

The *Contractor* shall access the Environment Agency's flood warning service that will provide alarms when flood alert and flood warnings are likely. The *Contractor* shall have a robust response plan that can be mitigated out of hours and at weekends. The *Contractor* shall submit this plan for acceptance to the *Project Manager* prior to starting that part of the *works.*

The *Contractor* shall ensure contact details and mitigation is included and kept up to date on the Environment Agency's "High Risk Site Log" that is used by the flood operations team to call 24 hours a day 7 days a week as required.

Unexploded Ordnance (UXO)

The Site is in a low risk area and no evidence of UXO has been found. The *Contractor* shall manage the risk if UXO is suspected as having been found and to report to the *Project Manager* prior to continuing within any work in the area.

Network Rail

The *works* are to be constructed in close proximity to Network Rail land and assets, including the operational branch line from Par to Newquay. There is a Basic Asset Protection Agreement (BAPA) with Network Rail in place under the Par St Blazey scheme. The *Client* shall provide the Network Rail supervisors. The *Contractor* shall comply with the requirements of the BAPA and liaise with Network Rail to provide the supervisors as required to deliver their Programme.

The *Contractor* shall appoint a Contractors Engineering Manager (CEM) and *Contractor*s Responsible Engineer (CRE) for acceptance by Network Rail.

The *Contractor* shall obtain approval from Network Rail for its Risk Assessment and Method Statements (RAMS) and temporary works designs for each section of the *works* that have the potential to impact Network Rail assets. The *Contractor* shall submit Network Rail forms F002 and F003 with its temporary works design signed by the CRE.

The *Contractor* shall not undertake any works that have the potential to impact Network Rail assets without Network Rail approval of its RAMS and temporary works design and Network Rail Site superintendence unless agreed otherwise with the *Project Manager* and Network Rail.

The *Contractor* shall provide Public Liability insurance to cover the requirements of the BAPA as set out in the Contract Data.

If there was a change to the BAPA resulting in the *Contractor* having to amend their method stated in the Buildability Report then this would be a change to the Scope and an instruction would be required from the *Project Manager*.

Kiosks and Cabling

The *Contractor* shall remove the:

- Existing telemetry kiosk at Highway Dam (by the boundary fence) including any concrete foundations and cables between the kiosk and telemetry monitoring equipment;
- The BT line (No. 01726 817434) and pole at Highway Dam. The *Contractor* is to liaise direct with BT/Openreach; and
- Two existing telemetry kiosks at Treesmill including any concrete foundations and cables between the kiosk and existing penstocks.

The *Client* shall:

- Decommission and remove all the telemetry equipment at Highway Dam; and
- Decommission and remove all the telemetry equipment at Treesmill Dam.

The *Client* shall procure and oversee the installation of the new Western Power Distribution supply required to both kiosks at Treesmill Dam. Western Power Distribution shall lay the required contestable works from the supply to the kiosks. The *Client* shall arrange for meters to be installed at both penstock locations with EDF.

All new telemetry equipment and 3/4G routers shall be provided and installed by the *Client* at both of the kiosks on Treesmill Dam.

The *Client* shall procure and oversee the installation of the new penstocks, electrical kiosks and lay all the cabling between the kiosks and penstocks as shown on the drawings in Appendix 7.

The *Contractor* shall provide new cable trenches between the control kiosk, actuators and hoods, power and communication cables for CCTV cameras. The *Contractor* shall also undertake all digging/backfilling of cable trenches. For any sections of cable route buried within the dam crest,

the ducts are to be surrounded by a weak cement bentonite grout before backfilling. Works within the dam crest shall be supervised by a Qualified Civil Engineer (QCE) as defined by the Reservoirs Act 1975.

All ducting shall be appropriately sealed at both ends once cables have been installed along with draw cords for future use in both the used and unused ducts.

Two methods of cable containment shall be proposed by the *Contractor* for review by the *Client*. Cabling within the structure shall be installed either:

- On heavy duty return flange galvanised steel cable tray and ancillary fixtures and fittings. The tray, if required, shall be appropriately secured within the structure, or
- In extended ducting between the control kiosk and the actuators internally within the structure using a proprietary system such that additional cables can be pulled in at a later date without any requirement for gaining access to the confined spaces. The ducting shall be appropriately secured within the structure and take the most direct route through to the actuator enclosures.

The *Contractor* is responsible for the construction of the control kiosk concrete slabs and an area of hardstanding for the safe and secure positioning of a mobile generator.

Third Parties

Phasing, temporary works and other requirements imposed by third parties beyond those included in the Scope, is not deemed part of this contract.

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 *works* only with the *Client's* written permission.

S 203 Security and protection on the site

The *Contractor* shall be responsible for the security of the Site and for vehicles and pedestrians entering and leaving the Site.

The *Contractor* shall be responsible for ensuring the works are securely fenced and protected to ensure the safety of the general public.

The *Contractor* shall ensure that the construction works do not compromise the security of properties adjacent to the Site.

S 204 Security and identification of people

Security measures shall include ensuring that the *Contractor*'s personnel are easily identifiable.

S 205 Protection of existing structures and services

The *Contractor* shall be responsible for repairing any structure or service damaged by *Contractor* and for any consequence of damage during the execution of the *works* due to the *Contractors*.

The *Contractor* shall only remove any fencing, gates or structures with the prior approval of the *Project Manager*. The *Contractor* shall record the location of any third-party property (e.g. fences and gates etc.) prior to removal and any replaced or reinstated shall be recorded on the as-constructed drawings.

Existing services

All readily available services information within the *boundaries of the site* is included within the Site Information. Prior to carrying out the *works* the *Contractor* shall independently verify the location of all known services with the use of a Type B Ground Penetrating Radar Survey (GPRS), compliant with PAS128, and actively search for any previously unidentified services prior to carrying out any intrusive ground works.

S 206 Protection of the *works*

The *Contractor* shall protect the existing structures and assets in such a way to ensure their performance is not negatively affected following completion of the *works*. Where *works* are close to third-party assets and there is risk of damage through operations the *Contractor* shall undertake a pre and post photographic record.

S 207 Cleanliness of the roads

The *Contractor* shall prevent dust and mud being deposited on public and private highways during the construction of the works in accordance with PPG6 and the supplementary clauses of the *Client's* Minimum Technical Requirements and the Construction Traffic Management Plan. Any mud deposited on public or private highways shall be removed by the *Contractor* as soon as practicable and within 24hrs.

S 208 Traffic Management

The *Contractor* shall be responsible for traffic safety and management including obtaining all approvals, e.g. road closures and openings. The *Contractor's* programme shall allocate sufficient time for all statutory determination periods. The *Contractor* shall not be responsible for delays by others in achieving approvals if it is outside of their control. The *Contractor* shall be responsible for implementing all, paying for and arranging any diversions required.

Before any work in, or affecting the use of, any highway or road is commenced, the *Contractor*'s proposed method of working, including any special traffic requirements, shall be accepted by and confirmed in writing to the *Project Manager* and all relevant authorities.

The *Contractor* shall produce a Traffic Management Plan to be submitted to the prior to construction of the works. The *Contractor*'s traffic management plan and hours of working shall take account of the requirements of the local residents and the general public as a whole. Traffic movement to and from the Site shall avoid peak traffic hours (i.e. 08:00-09:00hrs / 16:30-17:30hrs / school drop-off and pick-up times).

The Traffic Management Plan is to include, but is not limited to, the following:

- Access routes to be taken by heavy vehicles, noting any height or weight restrictions;
- Details for keeping roads clear of dust and mud;
- Timings for heavy (incl. abnormal) load movements;
- Vehicular routing;
- Parking restrictions for construction vehicles on the public highway surrounding the Site;
- Pedestrian walkways around the Site;
- Storage areas; and
- Timetable for removal of Site compound equipment.

The *Contractor* shall co-operate with the relevant authorities concerning works in, or access to, the highway.

The *Contractor* shall inform the *Project Manager* of any requirements or arrangements made with the relevant authorities.

The *Contractor* shall be responsible for liaising with the public with regard to road closures and regular movements on the highway.

The *Contractor* shall provide access (meeting access for all requirements or an agreed approach with the homeowners) and parking for the residents where the works prevent use of their own parking.

S 209 Condition survey

No condition surveys are available of the existing structures; therefore it is assumed that the:

- Culverts through Highway Dam and under the Highway Garage access bridge are in a suitable condition to allow partial demolition and installation of the new concrete headwall; and

Environmental surveys have been carried out and mitigation plans prepared by the *Client* and provided within the Environmental Action Plan (EAP) (see Appendix 6). The *Contractor* shall undertake a Pre-Construction ecological survey to ensure that baseline conditions have not changed a minimum of six weeks prior to the commencement of work on Site and carry out all environmental actions identified within the EAP.

The *Contractor* shall employ a qualified ecologist for the survey and a report provided to the *Client* within one week of completion of the survey.

At least two weeks prior to taking possession of the Site or any part of the Site, the *Contractor* shall undertake condition surveys of highways, footpaths, properties and land within the Site or providing access to the Site in accordance with the *Client*'s Minimal Technical Requirements.

All survey records shall be stored in the BIM archive by the *Contractor*.

The *Contractor* shall make a note of any existing damage and bring this to the attention of the *Project Manager*.

The *Contractor* shall also undertake a condition survey immediately following any associated reinstatement works as soon as is practicable and no longer than 48hrs.

The *Contractor* shall provide a copy of the condition survey to the *Project Manager*.

The *Contractor* shall repeat the condition survey within 1 week of completion of the works in accordance with the *Client*'s Minimum Technical Requirements and provide a copy to the *Project Manager*.

The *Contractor* shall undertake pre and post works photographic survey of the whole Site. These photos will need to be date stamped and kept on shared storage. They will be used to adjudicate any third-party disputes post works so need to be taken with this in mind to ensure they cover every part required. Photographs, surveys and inventories shall be date stamped, GPS referenced and copies held by the *Contractor*. The *Contractor* store these on the BIM archive and ensure name and numbering allows easy identification.

The *Contractor* shall allow the *Supervisor* to attend the condition surveys.

The *Contractor* is to give at least one weeks' notice to the *Project Manager* and *Supervisor* prior to undertaking any condition survey.

S 2010 Consideration of Others

The *Contractor* shall register the Site and act in accordance with Considerate *Contractor* Scheme. As such, the *Contractor* shall work to limit the impacts of the works on local residents and the land uses. The *Contractor* shall provide a named individual to act as the single point of contact for local residents and enquiries from the public.

The *Contractor* shall employ visual and noise screening when working in close proximity to domestic housing as agreed with the *Project Manager* and, on a daily basis, shall keep the landowner informed of Site activities that shall affect the landowner together with best estimates of the start and finish dates for any disruption. This shall include access to other parts of the Site.

Debris burning shall not be permitted under any circumstances.

S 2011 Control of site personnel

The *Contractor* shall ensure that all persons working on or visiting the Site hold a valid and current Construction Skills Certification Scheme (CSCS) card. Persons without this card shall be escorted at all times by a member of the Site team.

A visitor's book shall be maintained by the *Contractor* at the Site compound location in which the date, the time in, the time out, evidence of a specific Health and Safety induction, CSCS number, and the name and company of the person visiting shall be noted.

The *Contractor* shall make appropriate arrangements for the control of people working and visiting the Site.

S 2012 Site cleanliness

The *Contractor* shall keep the Working Areas tidy, removing rubbish, waste and surplus materials at least once every week. Materials, plant and equipment are to be positioned stored and stacked in a safe and orderly manner. The *Contractor* shall keep the watercourse free from debris and litter.

S 2013 Waste materials

A ground investigation was undertaken on the dam embankment in October 2021 and details of this are included in the Site Information.

No asbestos fibres or Asbestos Containing Material was detected in any of the samples.

Material that is surplus to requirements and where there is no clear strategy for reuse on-site is classified as waste and should be disposed of in accordance with Duty of Care as specified in the current waste management legislation and guidance. If material is destined for landfill, Waste Acceptance Criteria (WAC) analysis will be required to demonstrate to the landfill that the material is acceptable for disposal at the specific landfill.

A preliminary waste assessment has been undertaken based on analysed concentrations of contaminants in the soil samples obtained during the ground investigation, and this is included in the Site Information.

The results indicates that two soil samples would be classified as hazardous material due to ecotoxity properties associated with copper and zinc concentrations. This classification is a preliminary assessment based on point samples from locations across the site. The actual material to be removed off-site for disposal, must be appropriately classified and the classification

agreed with the chosen landfill operator, including Waste Acceptance Criteria testing to determine appropriate disposal measures.

It is the responsibility of the waste producer to classify, treat, manage and dispose of waste appropriately and to ensure the chosen landfill is licensed to accept such material. In addition, note that individual landfill sites may have their own soil and soil leachate limits for waste acceptance as stipulated in their waste permit. The *Contractor* should approach their chosen landfill with the initial waste classification detailed above and the Waste Acceptance Criteria lab data contained within the Geotechnics Limited Factual Ground Investigation Report within the Site Information.

Any construction related materials shall be disposed of by the *Contractor* away from the Site without any contamination of the waterways or surrounding land. Disposal shall be in accordance with the Site Waste Management Plan and by a licensed waste disposal *Contractor* with an audit trail.

The *Contractor* shall determine volumes of waste to be disposed of offsite and shall apply for the appropriate licences from the Environment Agency. This is to include the appropriate disposal of any soils contaminated with invasive species.

The Contractor shall assume 25% of all waste material to be removed from site for disposal is hazardous and disposed as contaminated waste.

S 2014 Deleterious and hazardous materials

The *Contractor* shall advise the *Project Manager* in writing of any substance that he proposes to bring onto Site that falls within the 'Control of Substances Hazardous to Heath' Regulations 2002, or otherwise requires special precautions to be taken. Such advice is to include copies of all relevant COSHH assessment sheets.

The *Contractor* shall manage all deleterious and hazardous materials found on Site in accordance with S 2013.

S 300 *Contractor's* design

S 301 Design responsibility

None identified.

S 302 Design submission procedures

None identified.

S 303 Design approval from Others

No specific requirements.

S 304 *Client's* requirements

The *Contractor* shall submit full calculations of their temporary works design to the *Project Manager* on request.

S 305 Design co-ordination

No specific requirements.

S 306 Requirements of Others

Refer to Network Rail temporary works design approval requirements detailed in Section S201.

S 307 Copyright/licence

No specific requirements.

S 308 Access to information following Completion

The *Contractor* shall provide all information relevant to the works to the *Project Manager* following completion. The *Contractor* shall retain copies of all information for inspection by the *Project Manager* for the duration of the contract liability period.

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 whole of the *works* have been completed in accordance with the Scope, with the exception of the landscape maintenance which will run for a further 2 years beyond completion and in parallel with the Defects period;
- There are no Defects that prevent safe access and operation by the *Client*;
- There are no Defects that present a health and safety hazard to the public or landowners;
- Provide all information to the Principal Designer, for the Principal Designer to compile the Health and Safety File;
- Provide all information to the Principal Designer, for the Principal Designer to compile the Operating and Maintenance Manuals;
- Provide red line drawings for the Consultant to prepare As Built drawings;
- Population of the *Client's* latest version of the Project Cost Tool, or its successor;
- Transfer to the *Client* databases of BIM data; and
- Delivery of the Final Carbon Report.

The Completion of the *Works* as defined above is to be certified by the Qualified Civil Engineer (QCE) as appointed by the Environment Agency under the Reservoirs Act 1975. This certification of the completion of the Works by the QCE shall be obtained when planting and seeding has been completed. A further stage pertaining to the maintenance period shall also be agreed when grass is established, where the establishment of grass is defined in the landscape specification.

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 is an absolute requirement for Sectional Completion to be certified, without this item the *Client* is unable to use the *works*:

- Transfer to the *Client* databases of BIM data.

S 403 Training

The *Contractor* shall provide operation and maintenance training to the *Client* for all aspects of the *works*. This shall include a site visit and entire scheme walkover to share the knowledge once the draft O&M manual has been produced.

S 404 Final Clean

The *Contractor* shall leave the Site in a clean, tidy condition and having removed all Equipment, Plant and Materials not required for the permanent works.

S 405 Security

All existing landowner security arrangements shall be reinstated upon completion unless agreed otherwise. The *Contractor* shall ensure that landowner security is maintained at a similar level to that which currently exists on the Site during the implementation of the *works*.

S 406 Correcting Defects

The *Contractor* is to liaise with the *Project Manager*, *Client* regarding arrangements for access for the correction of Defects following Completion. Access may not be granted immediately due to activities being undertaken by the landowners. Prior notification of 2 weeks is therefore required.

S 407 Pre-Completion arrangements

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

S 408 Take over

None identified.

S 500 Programme

S 501 Programme requirements

The *Contractor* shall submit a programme in Microsoft Project format containing all deliverables to the *Client* and *Project Manager* for acceptance within two weeks of Contract Award.

The programme complies with the requirements of Clause 31.2 and includes alignment and submission of the BEP and Master Information Delivery Plan (MIDP).

The *Contractor* shall allow a minimum of two weeks for review of all draft or final deliverables by the *Client*, and ensure sufficient time is included to address any matters arising. Review and amendment periods shall be clearly shown on the programme.

Drawings, Calculations and Method Statements detailing the proposed operational procedures of the *Contractor*'s proposed temporary works design and methods of working shall be submitted to the *Project Manager* at least 3 weeks prior to commencement of each item of work.

S 502 Programme arrangement

The programme shall be developed and maintained by the *Contractor*.

S 503 Methodology statement

The *Contractor* shall produce Method Statements stating how they shall undertake each element of the construction works. All construction methods shall adhere to any conditions imposed by the Scope and any licences and consents granted. Construction activities shall adhere to method statements and timings as submitted *Project Manager* in the construction phase plan.

Method statements shall contain sufficient information to enable the *Project Manager* to assess any likely detriment to the proposed works or the existing flood defences or to the *Client's* overall objectives.

Method statements shall be submitted to the *Project Manager.* They shall include but are not limited to the following matters:

i. Health & safety measures
ii. Extent of Working Areas and protective barriers
iii. Access to Working Areas, including confined spaces
iv. The implementation of relevant statutory regulations
v. The design and construction of temporary works and de-watering measures
vi. How the environmental impact of the activities are to be minimised
vii. Equipment requirements, siting and mode of operation
viii. Labour requirements and supervision
ix. Delivery and storage of Plant and Materials
x. Provision of access to third parties
xi. Details of the construction sequence
xii. Details of working methods
xiii. Detailed programme
xiv. Result of any consultation with third parties
xv. Contingency plans in the event of high flows or flooding, other difficulties or emergencies

xvi. Risk and COSHH assessments

The *Contractor* shall issue method statements two weeks in advance of carrying out items of work. The *Contractor* allows the period for reply for review of method statements. Work does not commence until the *Project Manager* has accepted the relevant method statement. The *Contractor* shall complete the work in accordance with the accepted method statement.

S 504 Work of the *Client* and Others

The order and timing of the work of the *Client* and Others to be included in the programme and information to be provided.

S 505 Information required

The *Contractor* shall provide dates for the submission of any materials and samples that require acceptance by the *Project Manager*.

S 506 Revised programme

An updated programme is to be provided to the *Project Manager* monthly at least two days prior to the monthly progress meeting.

All submissions of revised programmes by the *Contractor* shall include a full explanation of any changes in sequencing and duration of the work activities from the previous accepted programme.

Updates to the detailed programme shall include the baseline programme as originally agreed at the start of the contract. This shall be done by setting the programme at contract award as the baseline and maintaining this in the baseline history for each and every update to the programme. Activities are to be clearly defined so that the body of work to be executed and the method of construction being proposed for each activity are clearly ascertained.

S 600 Quality management

S 601 Samples

Requirements for samples are included within the Specification (see S 1700).

S 602 Quality Statement

The *Contractor* shall submit their quality plan for the works to the *Project Manager* within 4 weeks of the starting date.

S 603 Quality management system

The *Contractor*'s quality management system shall comply with the requirements of ISO 9001 and ISO 14001.

S 604 BIM requirements

The BIM Information Manager is the *Client*'s *Project Manager*.

BIM data shall be provided in accordance with the *Client*'s BIM requirements as specified in Appendices 1 & 2.

S 700 Tests and inspections

S 701 Tests and inspections

Requirements for samples, tests and inspections are included within the Specification (see S 1700).

S 702 Management of tests and inspections

The *Contractor* shall prepare a test and inspection schedule for acceptance by the *Project Manager* within 4 weeks of the start date. The *Contractor* shall update and submit this monthly to the *Project Manager* for the progress meeting and no later than 2 weeks prior to the test or inspection.

The *Contractor* shall present the results of any tests to the *Project Manager* within 1 week of the test being completed and shall notify the *Project Manager* of any failures and measures to be undertaken to remedy the failure. Failed work shall be subject to retesting after remedial measures have been undertaken and shall be subject to the same management as the original work.

S 703 Covering up completed work

The *Contractor* shall allow 1 week before covering up of works which have passed the test criteria unless agreement from the *Project Manager*.

S 704 *Supervisor's* procedures for inspections and watching tests

None identified.

S 705 Reduction against carbon budget

The *Contractor* shall deliver a solution which assists the *Client* to achieve their target of 40% reduction against the gateway 1 recorded value.

S 800 Management of the *works*

S 801 Project team – Others

The *Client* shall provide the *Project Manager*, *Supervisor,* ECoW and LCoW. Refer to Contract Data for details.

The *Contractor* shall provide an ecologist as required by the Scope and EAP.

S 802 Communications

The *Contractor* shall produce the following documents:

- Construction Environmental Management Plan (CEMP);
- Site Waste Management Plan;
- Traffic Management Plan;
- Access Plan;
- Carbon Calculator and Carbon Report;
- Quality Plan;
- Communication Plan;
- Landscape Maintenance Schedule; and
- Monthly progress reports.

The CEMP shall be based on the EAP (see Appendix 6) and best practice guidance. The Contractor shall demonstrate their proposals to minimise environmental impacts and to comply with environmental best practice principally through the content of and adherence to its Method Statements provided to the *Project Manager* (S 503).

The EAP and CEMP are live documents, the *Contractor* shall review, monitor and update the CEMP and provide input to the ECoW to update the EAP throughout the construction phase, following the Minimum Technical Requirements:

- Prior to the start of construction the *Contractor* ensures the EAP actions and behaviours are included within Site management systems and processes; and
- The *Contractor* provides evidence to the *Project Manager* to demonstrate that all pre-construction EAP requirements are fulfilled. The *Contractor* only commences work on Site once the *Project Manager* has accepted the EAP actions relevant to the area that work is planned are completed.

The *Contractor* shall follow the agreed Communications Plan and shall:

- Maintain records of all *Contractors* consultation, including actions taken as a result of communications received from the public or stakeholders during construction; and
- Employ a Public Liaison Officer to maintain day to day liaison with landowners, tenants and local residents whilst on Site as a single point of contact. Negotiation concerning compensation and legal matters shall always be undertaken by the *Client*. Likely communication with landowners and tenants to be discussed with the *Client*s Estates Lead for the month ahead at the start up meeting and the monthly progress meetings.

Progress meetings shall be held on Site and are to be attended by a minimum of the *Contractor*'s *Project Manager*, planner. *Contractor's* environmental lead and sustainability lead to be present on request from the *Project Manager*. Other members of the *Contractor*'s team shall attend the meeting if requested by the *Project Manager*. The *Contractor* shall facilitate the *Project Manager* in organising the meetings by providing the facilities and all required amenities.

The *Contractor* shall:

- Maintain a construction risk register and action decision log;
- Lead value engineering and risk meetings as required;
- Prepare and submit as part of the construction phase plan, a Site Waste Management Plan, Carbon Calculator, Access Plan and Traffic Management Plan;
- Provide input into the *Client*'s Combined Efficiency Reporting Tool for the works, which shall be updated quarterly;
- Review risk register (time and cost) as part of a risk workshop to be led by the *Contractor* prior to commencing the works. Risk analysis shall include a full evaluation of all risks including base assumptions, assumptions made in the calculation of minimum, maximum and most likely values and shall assess the impact of identified mitigation measures; and
- Engage with the StARR programme manager to ensure positive outcomes for the StARR project.

The *Contractor* shall develop and maintain an Emergency Contacts List for the duration of construction. Copies of the Emergency Contacts List shall be provided to the *Client*, *Project Manager*, and *Supervisor*.

The *Contractor* shall engage with the *Client's* partner Cornwall Council to ensure the works are delivered in collaboration with them.

The *Contractor* shall attend all community events required to inform the community of the works and provide information required by the *Project Manager* to facilitate these events.

Asite and FastDraft shall be used for document issue and contractual correspondence.

S 803 Monthly Progress Reporting

The *Contractor* shall:

- Attend a pre-commencement meeting by the team and the *Project Manager* shall take the minutes for this and all future meetings;
- Provide a suitable meeting room at their site offices;
- Prepare and submit written monthly progress reports and payment applications to the *Project Manager* before the 8th of each month;
- Prepare and update programme and financial monitoring/forecasting (including risk reviews) to the *Project Manager* before the 8th of each month;
- Attend monthly project team meetings;
- Champion and improve sustainability performance of the team;
- Review and update the lessons learnt log during monthly progress meetings and disseminate any key lessons learnt;
- Review and update the issues log during monthly progress meetings and determine the appropriate action required to resolve;
- Provide a senior representative for all Project Board meetings if requested by the *Client*; and
- Provide information for the project efficiency register, including estimated and actual cost for any efficiency identified using the Combined Efficiency Recording Tool (CERT) form and submit to the *Client* quarterly to suit CERT dates.

Monthly progress reports shall be provided in the format included in the Contract Management System. In addition to reporting on progress of activities on the programme and description of risks, early Warnings and Compensation events the *Contractor* shall include financial and carbon 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.

Refer to Clause 1.25 of the Minimum Technical Requirements for progress reporting requirements.

S 900 Working with the *Client* and Others

S 901 Sharing the Working Areas with the *Client* and Others

The *Contractor* shall co-operate with others in sharing the Working Areas they need in connection with the *works*.

S 902 Co-operation

The *Contractor* shall request all necessary information on landowner title and accommodation works agreements from the *Client*'s land agent at least two weeks prior to relevant land entry

S 903 Co-ordination

The *Contractor* shall liaise with landowners in and adjacent to the Working Areas in conjunction with the *Client*'s land agent.

S 904 Authorities and utilities providers

The *Client* shall contract and manage with all utility providers to provide any works required to protect, divert or isolate all known affected utilities.

The services that have been identified are shown on the drawings in Appendix 7.

The *Contractor* shall allow for aminimum of one additional weeks float on top of any offer from each of the utility providers.

S 905 Diversity and working with the *Client,* Others and the public

The *Contractor* shall provide a sign-board, available at a publicly accessible location near to the Site, on which the name and contact phone number of a responsible member of the *Contractor*'s staff is to be clearly displayed (see MTR Cl. 1.27). This phone number is to be monitored seven days a week (24hrs per day) and any genuine enquiries are to be responded to within 48hrs.

S 906 Awards

The *Contractor* shall apply for a minimum of two industry standard awards for the scheme so showcase the good work of the entire project team. The *Contractor* shall provide all literature and documents required for this and attend with the *Client* any award ceremony.

S 907 Landowners

All permanent works approvals, consents, permissions will be obtained by the *Client*. The *Contractor* to support the *Client,* works include but are not limited to:

[redacted] Par, PL24 2RN	Set up compound. Make good compound upon completion. Make good wider car parking area upon completion.
[redacted] London N11 3FR	Site access route into Highway Dam compound. Clear demarcation of the access route. Make good access route area upon completion.
[redacted] Par PL24 2RN	Site access route into Highway Dam compound. Clear demarcation of the access route. Make good access route area upon completion. Channel reinstatement works upstream of the boundary fence.
[redacted] Par, Cornwall	Access track to Treesmill western penstocks. Clear demarcation of the access route.

[redacted] Par PL24 2LU.
[redacted] Truro,
Cornwall TR4 9DJ

Make good access route area upon completion.

New cable ducting and kiosk slab.

New cable ducting and kiosk slab.

S 1000 Services and other things to be provided

S 1001 Services and other things for the use of the *Client, Project Manager* or Others to be provided by the *Contractor*

Details of Services and other things for the use of the *Client*, *Project Manager* or Others to be provided by the *Contractor* are listed in the Minimum Technical Requirements.

The *Contractor* shall provide first aid facilities, materials and personnel trained in first aid, for the benefit of their own people, those of their *sub-Contractors* and the Site staff of the *Project Manager*, *Supervisor* and *Client.*

S 1002 Services and other things to be provided by the *Client*

The *Client* shall supply a Construction Information Board to be displayed at the same location as the sign-board (see S905).

S 1100 Health and safety

S 1101 Health and safety requirements

The *Contractor* shall comply with the requirements of the Next Generation Supplier's Arrangement and the *Client*'s Safety, Health, Environment and Welfare (SHEW) Code of Practice in the undertaking of these works.

A Pre-Construction Information Pack has been prepared by the Designer and shall be reviewed by the *Contractor*.

S 1102 Method statements

Refer to S 503.

S 1103 Legal requirements

The *Contractor* shall fulfil the roles of Principal Contractor under the Construction Design and Management Regulations 2015 for the duration of the works.

S 1104 Inspections

The *Contractor* shall submit their health and safety procedures for review and inspection by the *Project Manager* within 4 weeks of the start date. The *Contractor* shall update these on a monthly basis and submit them to the *Project Manager* for review and inspection.

S 1200 Subcontracting

S 1201 Restrictions or requirements for subcontracting

It is a requirement for any subcontracting that the *Contractor* remains responsible for all the works. The *Contractor* shall provide the *Project Manager* details of proposed Subcontractors and suppliers, including method statements and risk assessments, for acceptance.

The *Contractor* shall request written acceptance from the *Project Manager* prior to appointing any design consultant in connection with the *works*. If the *Contractor* proposed to appoint a design consultant from outside of CDF, details of the designer's previous relevant experience, CVs of key staff, and *Client* references shall be submitted to the *Project Manager*, allowing in the programme 3 weeks from submission of satisfactory evidence to acceptance. Any design work commissioned by the *Contractor* to deliver the permanent works shall be covered by collateral warranty.

The *Contractor* shall provide the *Project Manager* with details of proposed Sub-contractors and suppliers, including method statements and risk assessments, for acceptance prior to Sub-contractor's commencing the *works*, and prior to suppliers providing Plant or Materials in connection with the *works*.

The *Contractor* shall quality assure all subcontracted items of the *works*, including environmental products, prior to submission for review, or prior to requesting an inspection by the *Project Manager*, *Client* or *Supervisor*.

The landscape works comprising topsoil preparation, cultivation, grass seeding, initial grass establishment and tree and shrub planting shall be undertaken by an experience and accredited 'full member' of the British Association of Landscape Industries (BALI) who is experienced in the type of works and establishment works proposed.

S 1202 Acceptance procedures

Clauses 26.3 and 11.2(25) (Options C and E) State any specific submission and acceptance procedures for the proposed subcontracts not based upon the NEC contract. The basic requirement for submission and acceptance is dealt with in subclause 26.3.

All *Contractor*'s applications to be made via the FastDraft system.

S 1300 Title

S 1301 Marking

There are no items of Equipment, Plant or Materials outside of the Working Area that are required to be marked by the *Supervisor* for payment and transfer of title to the *Client*. The *Client* shall not pay for any Equipment, Plant or Materials outside of the Working Area.

S 1302 Materials from Excavation and demolition

The title of materials from excavation and demolition shall remain with the landowner on whose land the material was first identified.

If the material is required to be transported to a storage area within the landowner's ownership but outside of the Working Area then the additional cost of transporting the material outside of the Working Area shall be at the landowner's expense, agreed with the *Project Manager*. If the material is not required by the landowner, then it shall be disposed of off Site by the *Contractor* at the *Contractor*'s expense in accordance with the Site Waste Management Plan. The *Contractor* has no title to materials from excavation and demolition.

S 1400 Acceptance or procurement procedure (Options C and E)

There are no additional requirements to S 1400.

S 1500 Accounts and records (Options C and E)

S 1501 Additional Records

In addition to the requirements of Clause 52.2 the *Contractor* shall keep but are not limited to the following additional records:

- Timesheets and site allocation sheets;
- Equipment records;
- Forecasts of the total Defined Cost (Forecasts are to include, but not be limited to costs to date, costs to completion including detailed breakdown of staff, sub-contract and major material items); and
- Specific procurement and cost reports.

The format and presentation of records to be kept are to be accepted by the *Project Manager.*

S 1600 Parent Company Guarantee (Option X4)

Not required

S 1700 *Client's* work specifications and drawings

S 1701 *Client's* work specification

The Project-Specific Technical Specification is the Environment Agency's Minimum Technical Requirements, which are amendments and addenda to the Civil Engineering Specification for the Water Industry (CESWI) 7th Edition. The following additional project-specific amendments and addenda also apply.

In the event of conflict between Environment Agency's Minimum Technical Requirements and the following additional project-specific amendments and addenda, the following additional project-specific amendments and addenda shall prevail.

- Specification for Landscape Works Implementation and Maintenance Works.

The following documents form part of the Scope:

- Appendix 1 – BIM Protocol – Information Production and Delivery Table;
- Appendix 2 – BIM Protocol – *Client*'s Information Requirements;
- Appendix 3 – Penstock Performance Specification – For Information Only;
- Appendix 4 – ECIA Performance Specification– For Information Only;
- Appendix 5 – Specification for Landscape Works Implementation and Maintenance Works;
- Appendix 6 – Environmental Action Plan; and
- Appendix 7 – Drawings.

This Scope shall be read in conjunction with the version of the Minimum Technical Requirements current at the Contract Date. This includes:

- 801_14 Minimum technical requirements: Environmental sustainability, design and management, Dated December 2015, Version 3;
- 801_14_SD01 Minimum technical requirements: Cultural heritage and archaeology standards, Dated 21 December 2015, Version 1; and
- LIT 13879 Minimum technical requirements: Landscape and environmental design, Dated 07 July 2017, Version 1.4.

S 1702 Drawings

The drawings are included in Appendix 7.

S 1703 Standards the *Contractor* will comply with

The *Contractor* should carry out their work using the following guidance.

Ref	Report Name	Where used
	Project Cost Tool	Costs
	Sustainability Measures Form	
	Timber Policy Documents	
	300_10 SHE handbook for managing capital projects	
	300_10_SD27 SHE Code of Practice	

Be especially careful not to include Site Information in this section of the document.

Appendix 1 BIM Protocol – Information Production and Delivery Table

All *Client* issued information referenced within the Information Delivery Plan remains within the *Site Information* unless it is referenced elsewhere within the *Scope*

www.Pow.bim4.info

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 suppliers.

Appendix 2 – BIM Protocol – *Client*'s Information Requirements

Employer Information Requirements

Appendix 3 – Not used

Appendix 4 – Not used Appendix 5 – Specification for Landscape Works Implementation and Maintenance Works

Title	Document no.	Revision	ASITE link
Management Plan	ENV0002591C-ATK-00-3HD-RP-L-009903	C02	https://adoddleak.asite.com/lnk/yAp9nx8FBRpRBXCpM9Mn
Landscape Specification	ENV0002591C-ATK-00-3HD-RP-L-009904	C02	https://adoddleak.asite.com/lnk/4AKnkbafBRKRB7se8E8k

Appendix 6 – Environmental Action Plan

Title	Document no.	Revision	ASITE link
Environmental Action Plan	ENV0002591C-ATK-00-3ZZ-RA-EN-000001	P02	https://adoddleak.asite.com/lnk/BM9jExxt7depy9UEgggL

Appendix 7 – Drawings

Title	Document no.	Revision	ASITE link
boundaries of the site	ENV0002591C-ATK-00-3HD-DR-C-000004	C03	https://adoddleak.asite.com/lnk/AXK484jfebAeGBCrjoj7
Highway Dam - Location Plan and Hazard Plan	ENV0002591C-ATK-00-3HD-DR-C-000015	C02	https://adoddleak.asite.com/lnk/qA97a7kfEpXEzqf5pXp7
Reservoir Discontinuance - Accommodation works	ENV0002591C-ATK-00-3HD-DR-C-000016	C02	https://adoddleak.asite.com/lnk/xAbz75kFKdRKobFzKkKp
Reservoir Discontinuance - General Arrangement	ENV0002591C-ATK-00-3HD-DR-C-000017	C02	https://adoddleak.asite.com/lnk/pAKz75nSBREBoeCe8E8k
Reservoir Discontinuance - Earthworks Plan and Section	ENV0002591C-ATK-00-3HD-DR-C-000018	C02	https://adoddleak.asite.com/lnk/9Apz75dsBRMBo5UpM8Mk
Reservoir Discontinuance - Headwall Plan and Sections	ENV0002591C-ATK-00-3HD-DR-C-000019	C02	https://adoddleak.asite.com/lnk/MXRB9G9hjegjAgHnpopa
Reservoir Discontinuance - Headwall Elevations and Details	ENV0002591C-ATK-00-3HD-DR-C-000020	C01	https://adoddleak.asite.com/lnk/GEBX9pEf8xG8orIkrzra
Reservoir Discontinuance - Rootlok Plan and Elevations	ENV0002591C-ATK-00-3HD-DR-C-000021	C01	https://adoddleak.asite.com/lnk/bMbRbaqCj7nE5pud5g59
Reservoir Discontinuance - Rootlok Sections	ENV0002591C-ATK-00-3HD-DR-C-000022	C01	https://adoddleak.asite.com/lnk/jAg6qrGHjeyg4es6k4kE
Reservoir Discontinuance - Channel lining	ENV0002591C-ATK-00-3HD-DR-C-000023	C02	https://adoddleak.asite.com/lnk/5A97aqqSEpXEzbtqpXp7
Reservoir Discontinuance – Headwall RC	ENV0002591C-ATK-00-3HD-DR-C-000025	C01	https://adoddleak.asite.com/lnk/aMdRdLqUBpe7oRsBaMar
Reservoir Discontinuance – Bar Bending Schedule	ENV0002591C-ATK-00-3HD-SC-C-000025	C01	https://adoddleak.asite.com/lnk/6RKAKgMUBrXg5oFe8X8k
Reservoir Discontinuance – Headwall RC	ENV0002591C-ATK-00-3HD-DR-C-000026	C01	https://adoddleak.asite.com/lnk/qA969ALfEKXg5nt5pXp7
Reservoir Discontinuance – Bar Bending Schedule	ENV0002591C-ATK-00-3HD-SC-C-000026	C01	https://adoddleak.asite.com/lnk/7A969gdfEKXg5eh5pXpz
Treesmill Reservoir - Location Plan and Hazard Plan	ENV0002591C-ATK-00-3TR-DR-C-000001	C02	https://adoddleak.asite.com/lnk/xAbz7XbFKdRayXtzKkKp
Treesmill Reservoir - General Arrangement	ENV0002591C-ATK-00-3TR-DR-C-000003	C05	https://adoddleak.asite.com/lnk/9Apz7X9SBRMgyLUpM8Mk
Treesmill Reservoir -	ENV0002591C-ATK-00-3TR-DR-	C05	https://adoddleak.asite.com/lnk/k

Elevations	C-000004		RyeaXkhX4BKEaHpodo5
Treesmill Reservoir - Platform raising works	ENV0002591C-ATK-00-3TR-DR-C-000005	C01	https://adoddleak.asite.com/lnk/oRyedMeHX4BpLrhpzdz5
Treesmill Reservoir - Electrical SLD 1	ENV0002591C-ATK-00-3HD-DR-E-000001	P02	https://adoddleak.asite.com/lnk/AXKEE9otebRxKyCrjoj7
Treesmill Reservoir - Electrical SLD 2	ENV0002591C-ATK-00-3HD-DR-E-000002	P02	https://adoddleak.asite.com/lnk/BM9jjbKt7dne84fEgqgL
Landscape Masterplan	ENV0002591C-ATK-00-3HD-DR-L-000101	C02	https://adoddleak.asite.com/lnk/EXKMGrEHebAbgbCrjoj7