

ECC Scope Template

Environment Agency

NEC4 engineering and construction contract (ECC)

412_13_SD03

NEC4 engineering and construction contract (ECC) Scope

Project / contract information

| | |
|------------------------|---|
| Project name | River Sowy and King's Sedgemoor Drain Enhancements Scheme: Phase 1a |
| Project 1B1S reference | ENVRESW001353 |
| Contract reference | Project_32236 |
| Date | |
| Version number | P07 |
| Author | |

Revision history

| Revision date | Summary of changes | Version number |
|---------------|--|----------------|
| | First issue | |
| 31/07/2020 | Second issue following review | 2 |
| 04/09/2020 | Splitting out works into 2 Stages across 2020 and 2021 | 3 |
| 28/09/2020 | Refined scope and reviewed specification. | 4 |
| 29/09/2020 | Refined specification, constraints and updated appendices. | 5 |
| 13/10/20 | Re-allocation of some works from Phase 1a to Phase 1b | 6 |
| 29/10/20 | Scope refined for final issue. | 7 |
| 17/02/21 | Final Scope | 8 |
| 02/06/21 | Revised following Tender clarification meeting | 9 |

customer service line
03708 506 506

www.environment-agency.gov.uk

incident hotline
0800 80 70 60

floodline
0845 988 1188

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

| Document | Document Title | Version No | Issue date |
|-------------|--------------------------------|------------|------------|
| 412_13_SD01 | Minimum Technical Requirements | 9 | 18/03/2020 |

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S 100 Description of the works

S 101 Description of the works

The drawings describing the works are listed in S 1702 and included in Appendix 3.

The Sowy River / KSD Enhancement works will be carried out in two stages Phase 1a (February 2021 to July 2021) and Phase 1b (July 2021 to October 2021- which will be a separate contract).

This Scope and contract is for the Phase 1a works only. Phase 1a works have been listed below and the remainder of the works to complete the project will be carried out as part of the Phase 1b contract (this will predominantly be the flood bank raising works along the Lower Sowy and KSD, excavation of WFD features, all landscaping and reinstatement works and any modification works required to the outfall structures along the KSD and Sowy River.

The Phase 1a works consist of:

- The *Contractor* shall raise the defence level on the right bank in two localised areas of the River Sowy (Upper), using imported fill material (as shown on drawing ENVRESW001353-CH2-ZZ-4US-DR-C-2013); and
- The *Contractor* shall undertake vegetation clearance on fencing currently erected within the site boundary capable of inhabiting breeding / nesting birds to enable future works (Phase 1b). This shall include:
 - Clearance of 725m of dense scrub habitat that has established over 35 of the 66 fences that run perpendicular to the river corridor along both left banks of the River Sowy and KSD. The extent of vegetation clearance required on each of the 35 fences, is specified within the Sowy / KSD LB Vegetation Schedule found in Appendix 4. Fence locations are identified within the Sowy / KSD LB Vegetation Plan found in Appendix 4.
 - Any cleared trees are to be chipped and stockpiled on the dry side (landward) of the proposed flood bank to form suitable locations for reptile hibernacula along the right bank of the KSD and River Sowy. Any new hibernacula shall be located on Environment Agency owned land, within a distance not exceeding 300m from the original tree location, and in a position, which won't create an obstacle for the proposed Phase 1a or Phase 1b works.
 - Any fencing that has failed as a result of the vegetation clearance, shall be removed from site by the *Contractor* and disposed of appropriately. Where fencing has failed as a result of the vegetation clearance, the *Contractor* shall install temporary post and barbed wire stock proof fencing to maintain existing field boundaries (assumed quantum for the purpose of the Client Set Target shall be 1188m, any variance from this amount will be a Compensation Event) . Temporary fencing for stock control purposes shall conform to and be fixed in accordance with BS 1722 -3 Fences. Specification for strained wire fences. The *Client* has free issued approximately 300 Nr. 1.8m long, 80mm dia. Chestnut temporary fencing posts to the *Contractor* to be used where required on this scheme.

The presence of hibernating reptiles in stands of vegetation on the river side of the flood bank is unlikely as these areas are subject to regular flooding (River Sowy and King's Sedgemoor Drain Enhancements Scheme: Phase 1 Environmental Statement ENVRESW001353-CH2-XX-400-RP-EN-1042 V3. Section 7.4.4: Species).

However, the Phase 1 Habitat Survey undertaken by Jacobs 2019, did observe active grass snakes and slow worms on the River Sowy and KSD left bank. The presence of early active reptiles (particularly grass snake and slow worm), and to a lesser extent hibernating reptiles, within these areas of vegetation cannot be ruled out.

To ensure legal compliance under the relative wildlife legislation, care will be required when clearing these areas during the advance works and during construction. The *Contractor* shall follow the preferred approach to vegetation manipulation as set out in Appendix 10 the River Sowy and King's Sedgemoor Drain Enhancements Scheme: Phase 1 Reptile Mitigation Method Statement (ENVRESW001353-CH2-XX-400-MS-EN-1110 rev1), specifically:

- Undertake phased directional strimming of the vegetation down to a height of 10cm to 20cm avoiding ground/root disturbance. Directional strimming refers to working towards nearby habitat that is being retained, so any active reptiles can find alternative suitable cover i.e. moving from the river's edge up to and over the flood bank.
- Vegetation strimming shall be undertaken under the supervision of the ECoW. This will allow the ECoW to identify any hibernation features that might be obscured underneath and which should not be removed/disturbed.

Vegetation clearance should be undertaken during February/early March 2021 to avoid the most sensitive periods for nesting birds and active reptiles. NOTE - If any protected species are encountered during the vegetation clearance, the *Contractor* shall stop work immediately and seek advice from the ECoW

- The *Contractor* shall erect temporary barrier fencing on site as directed by the *Client's* Badger ecologist to protect badger setts 2 and 7 located along the KSD. The *Contractor* shall include 40m of road cones and blue rope per sett, approximate layouts are as shown in the photos in Appendix 6 (this barrier will need to be maintained until the end of works on site in 2021 (i.e. throughout Phase 1a and Phase 1b));
- The *Contractor* shall comply with all relevant parts of the EAP as appropriate to the Phase 1a works (See Appendix 7).
- Delays from stoppages due to the presence of ecology, is a client risk, and will be dealt with as Compensation Event.
- To inform the modifications required at Cossington Right and Chilton Right Rhyne Outfall (NGR ST 36470 35765 and ST 37555 35337 respectively), the *Contractor* shall vertically remove the outermost trench sheet pile from the short piled wingwall sections located on either side of the penstock concrete headwalls i.e. a total of 4 piles.
 - During the pile pulling, the *Contractor* should avoid where possible, disturbing the adjacent pile.
 - Once a pile has been removed the *Contractor* shall record the length of each pile, before re-driving the pile back into its original clutch.
 - Throughout the pile removal activities, the *Contractor* shall keep a photographic record of the piles being removed.
 - The *Contractor* shall give 1 weeks' notice to the *Project Manager* and the local Catchment Engineer (██████████) to afford them the opportunity of attending site and witnessing the pile removal activities in person.

- Once complete the *Contractor* shall present the findings in a concise report comprising a table of the pile lengths and correlating pile locations, along with photos, notes on any defects observed, any adjacent pile movement/disturbance, and/or any issues encountered when returning the pile to the original clutch.
- The above pile investigation work shall be undertaken in 2 weeks from the signing of this contract, unless agreed otherwise with the ECC Project Manager.
- Water vole survey and displacement activities will be undertaken by Others on site, carried out on a fortnightly basis for all of the WFD features and for both the Cossington Right and Chilton Right Rhyne Outfalls. The water vole survey has revealed no water vole burrows in the proximity of the proposed pile investigation work at these outfall structures. Should the *Contractor* be required to collapse any identified water vole burrows at a later date, this activity would be a Compensation Event.
- NOTE - Any water vole burrow collapsing *works* shall be supervised by a *Client* appointed water vole ecologist.

S 102 Purpose of the Works/ Outcome required

This project is part of the River Sowey and King's Sedgemoor Drain Enhancements Scheme: Phase 1 which will:

- Increase the capacity of the River Parrett Flood Relief channel (KSD and River Sowey system);
- Minimise and mitigate for adverse environmental effects as a result of the scheme design;
- Minimise adverse impacts on economic activity, tourism, recreation and other human activity adjacent to the KSD and River Sowey. The increased capacity within the channel will help retain more water within the channel system, reducing flooding in frequency and severity of areas adjacent to the channel;
- Minimise health and safety risks throughout the life of the scheme; and
- Support and contribute to the objectives of the Water Framework Directive (WFD) for the relevant water bodies and the associated mitigation measures in the South West River Basin Management Plan;
- Provide greater control over water networks in the Somerset Levels and Moors during flood events enabling enhanced operational flexibility.

Environmental Objectives of the project are recorded in the Environmental Action Plan which the Contractor must comply with (See Appendix 7). Where these impact on the *works*, specific actions are indicated in the Scope, including within the Client's works specification (S 1700).

Outcome Required

The strategic objective of this contract is to carry out the works resulting in the delivery of the optimum increase in conveyance along the River Sowey and King's Sedgemoor Drain with the available LEP and SRA match funding.

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

The *Contractor* shall safeguard the site, the works, products, materials, and any existing structures affected by the works from damage and theft.

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

S 201 General constraints

The following programme and spatial constraints apply:

1) Programme

| Activity | Constraint | |
|--|---|---|
| Project planning and resolution of consent conditions (see section SI 300 of the Site Information) | The <i>Contractor</i> prepares the following. The documents are prepared by the <i>Contractor</i> and submitted to the <i>Client</i> and Others for acceptance, allowing a minimum one-week review period by the <i>Client</i> and Others, as indicated below, prior to acceptance by the <i>Project Manager</i> . | |
| | <u>Document to be prepared by the Contractor</u> | <u>For acceptance by the Project Manager in association with:</u> |
| | Updated Materials Management Plan in accordance with best practice and the CL:AIRE Definition of waste Code of Practice. (Original draft being prepared by the Contractor under a separate ESE NEC PSC.) | <i>Client</i> |
| | Site Environmental Emergency Plan as required by the SHEW CoP | <i>Client</i> |
| | The <i>Contractor</i> prepares and presents the following for acceptance one week prior to construction of specific parts of the <i>works</i> affected by the documents and samples covered. | |
| | <u>Item to be prepared by the Contractor</u> | <u>For acceptance by the Project Manager in association with:</u> |
| | A Pre-construction Photographic Schedule of Condition survey (Refer to Section 209) | EA Estates |
| Water vole displacement (Cossington Right and Chilton Right Rhyne Outfalls) | <ul style="list-style-type: none">Any water vole burrow collapsing's would need to be completed prior to the pulling of any piles at these two structures. Water vole survey to-date has determined there are no water vole burrows present that would affect the proposed outfall pile removal activities. If burrows are later found to be present, the burrow collapsing works shall be supervised by a <i>Client</i> appointed water vole ecologist.Should the <i>Contractor</i> be required to collapse any identified water vole burrows at a later date, this activity would be a Compensation Event. | |
| Over-wintering birds | The EAP (Appendix 7) contains measures such as monitoring presence of birds, works limited to daylight hours, watching brief. | |

| Activity | Constraint |
|---|--|
| Pile removal at Cossington Right and Chilton Right Rhyne Outfalls | The <i>Contractor</i> prepares and presents a concise findings report that includes details of the pile lengths and any issues encountered with the removal and measuring of the pulled piles. The Pile Length Findings Report will be provided to the <i>Client</i> for acceptance one week post pile removal work. |

2) Possession

The *Contractor* has possession of the Site during the *works*. However, the *Contractor* allows for the *Client's* and *Others* to undertake the following:

| Activity | Constraint |
|---|--|
| Water vole | Supervision of the destructive searches for water vole burrows, prior to the works to both the Chilton Right and Cossington Right outfalls. The <i>Contractor</i> permits the <i>Client</i> or <i>Other's</i> to carry out any vegetation clearance operations required to displace water vole for the 7 WFD areas and both the Chilton Right and Cossington Right outfalls until such time as the <i>Contractor</i> commences work in these areas |
| Construction | The <i>Contractor</i> permits the <i>Client</i> or <i>Others</i> to undertake maintenance works on all areas of the Site. |
| Badger | The <i>Contractor</i> permits the <i>Client</i> or <i>Others</i> to undertake all activities associated with closing or mitigating impacts to badger setts. |
| Accessing control structures | The <i>Contractor</i> maintains access to the following structures: Beer Wall sluice, Chilton Right, Cossington Right, Shapwick, Parchey Sluice, Langacre Sluice, Bimpits Sluice and Blindmans Gate structures. Any obstructions for the operation and maintenance of the structure are to be agreed with the Environment Agency. |
| Public Safety Risk Assessment (PSRA) Assessor | A Public Safety Risk Assessment (PSRA) arranged by the <i>Client</i> is to be allowed prior to the works being completed on site. |
| Ministerial visits | The <i>Contractor</i> permits the <i>Client</i> or <i>Others</i> to escort any Government officials around the works to meet funding publicity requirements. |
| Site Visits | As part of the <i>Client's</i> Stakeholder Management strategy, the <i>Client</i> has offered the Parish Councils and some of the stakeholders the opportunity of a site visit to view the works and for press coverage. The <i>Contractor</i> shall proactively work with the <i>Client</i> to meet these obligations. |
| Landowner requirements | Pedestrian access for landowners is to be maintained throughout the works for the footbridge located at ST 37197 35452, across the KSD. This is required to permit local landowners, located on the left bank of the KSD, to use the bridge to cross the KSD twice a day to check on the wellbeing of their cattle located on the right bank of the KSD |

3) Access to the Site

Existing roads, cycleways and footways shall remain open to the public during the *works*. The *Contractor* is responsible for managing the interface between their operations and the public when gaining access to the working areas along routes that are open to the public. The *Contractor* shall be responsible for obtaining any Temporary Traffic Regulation Orders, temporary closures or diversions required for any footpaths or highways affected through their proposed method of works.

In arranging temporary road and footpath closures, the *Contractor* manages closure requests and bookings through Somerset County Council's application portal on behalf of the *Client*. The *Contractor* accounts for this in the Traffic Management Plan (Refer also to S 201 (1)).

Normal working hours will be from 07:00 to 19:00 Monday to Sunday. Where practicable, operations which may cause noise and or vibration disturbance should be scheduled for daylight working.

Traffic constraints include, but are not limited to, the following:

- Parchey Bridge – Access between Ward Lane and the left and right banks of KSD. Poor junction visibility due to sharp corner and vegetation.
- Bimpits Lane – Access between Oliver's Road and the left and right banks of River Sow. Sharp turn onto/from high speed Oliver's Road.
- A361 – Access between the A361 and the left and right banks of River Sow. Sharp turn onto/from very high speed A361.
- Sandy Lane – Access between A361 and the left and right banks of River Sow. Sharp turn onto/from very high speed A361. Poor junction visibility due to vegetation.
- Owery Farm lane – Access between A361 and the left and right banks of River Sow. Sharp turn onto/from very high speed A361.
- A372 at Beer Wall – Access between A372 and the left and right banks of River Sow. Sharp turn onto/from very high speed A372.
- Church Drove – Access between A372 and the right banks of River Sow via Church Path. Poor junction visibility due to vegetation and adjacent buildings.

4) Retained Trees/Hedges/Shrubs/Grassed Areas

The *Contractor* adequately protects and preserves all existing trees and their root protection areas, hedges shrubs and grassed areas, except where identified for felling (Scope limited to 10 trees) as shown on drawings ENVRESW001353-CH2-ZZ-4KS-DR-C-2011 and ENVRESW001353-CH2-ZZ-4KS-DR-C-2012 and referenced within the Aboricultural Impact Assessment (ENVRESW001353-CH2-XX-400-RP-EN-1118) and Aboricultural Method Statement (ENVRESW001353-CH2-XX-400-MS-EN-1120) Appendix 8

The *Contractor* replaces or treats any trees, hedges, shrubs or grass areas damaged or removed without approval. Any mature trees and shrubs which, due to the *Contractor's* method of works, are uprooted, destroyed, or in the opinion of the *Project Manager*, damaged beyond reasonable chance of survival in their original shape, are replaced with those of a similar type and age or semi-mature where replacement of mature stock isn't viable. Protection measures include avoidance of:

- Dumping of spoil or rubbish, excavation or disturbance of topsoil, parking of vehicles or plant, storage of materials or placement of temporary accommodation within the branch spread.
- Severance of roots exceeding 25mm in diameter.
- Changing level of ground.
- Lighting of bonfires.
- Use of rippers or rotovator to break up the ground, or machinery which will cause compaction.
- Use of the trees as an anchor for ropes.
- Alteration of the drainage characteristics or water table by any site operations under the control of the *Contractor* within an area 3m beyond the branch spread.

For grass-cutting requirements, see S 201 (6c).

5) Archaeology

The Site includes a Registered Battlefield (List Entry Number: 1000032) and a Scheduled Monument (Entry Number: 1014430), refer to section SI 100 of the Site Information. The *Contractor* shall carry out the works in accordance with the associated requirements of the Scheduled Monument Consent. The Consent conditions have been included in the EAP.

Any delays due to Archaeology finds will be dealt with as a Compensation Event.

6) Protected Species

In carrying out the works required for each part of the *works*, including the arrangement of temporary access routes within or close to watercourses, the *Contractor* considers the following:

- Impact on protected species and their habitat
- Impact on fish, particularly those migrating and spawning in the river channels at potential crossing points

For information regarding potential impacts on fish, refer to the Environmental Action Plan found in Appendix 7

Further considerations for protected species are as follows:

a. Water voles

The *Contractor* avoids working within five metres of the edge of all water surface at the summer penning level (penning level varies by watercourse, see following table), except at the two outfall structures.

| Water level control structure | Grid ref. | Summer pen level (m ODN) |
|--|--------------|--------------------------|
| King's Sedgemoor Drain and Sowey | | |
| Dunball Sluice | ST 3099 4072 | 2.60 - 2.65 |
| Beer Wall Tilting Weir | ST 3918 3152 | 3.80 - 4.00 |
| Langacre Rhyne (King's Sedgemoor SSSI) | | |
| Langacre Sluices | ST 3803 3509 | 3.45 |
| Blind Man's Gate Sluices | ST 3925 3394 | 3.65 |
| Beer Wall Sluices | ST 3922 3151 | 3.80 |
| King's Sedgemoor Drain Back Ditch (Moorlinch SSSI) | | |
| Parchey Tilting Weir | ST 3520 3780 | 3.10 |
| KSD Back Ditch (Chilton Right) Penning Bay | ST 3750 3580 | 3.30 - 3.35 |

Reference document: *King's Sedgemoor and Aller Moor Water Level Management Plan – Parrett Internal Drainage Board- Approved July 2010*

b. Badgers

The *Contractor* shall be responsible for the following mitigation measures;

The *Contractor* is required to erect temporary barrier fencing, in the form of cones and blue rope as directed by the *Client's* Badger ecologist to protect badger setts 7 and sett 2 as identified within the Badger survey report (these can be found in section S1 205 of the Site Information). The *Contractor* shall include 40m of road cones and blue rope per sett, approximate layouts are as shown in the photos in Appendix 6. The fencing shall remain in place for the entire duration of these works. The fencing shall act as a guide for construction plant to prevent plant from tracking over the setts.

The *Contractor* is required to meet the *Client* appointed Badger ecologist as already instructed, on site in advance of works commencing on the KSD in order for the *Contractor* to be instructed by the ecologist for the most appropriate placing of the fencing. The *Contractor* must provide 1 weeks' notice to the *Client* to arrange this visit.

For Badger mitigation, during the works the *Contractor* shall:

- Not move the fencing without prior agreement from the *Client*
- Not track plant on the King's Sedgemoor Drain side of the fencing
- Not park or store materials on the King's Sedgemoor Drain side of the fencing
- Shall report any new Badger excavation to the *Client* found on the tracking route side

The fencing shall be removed only once the works are completed

For all other remaining setts other than setts 2 and 7, the *Contractor* completes works in accordance with the Badger Method Statement (ENVRESW001353-CH2-XX-400-MS-EN-1121) (Appendix 9)

c. Reptiles

The *Contractor* follows the methodology and restrictions outlined in the Construction Environmental Management Plan and in accordance with Appendix 10 River Sowey and

King's Sedgemoor Drain Enhancements Scheme: Phase 1 Reptile Mitigation Method Statement (refer to S 201 (11)).

d. Invasive and non-native species

The *Contractor* follows the methodology and restrictions outlined in the Construction Environmental Management Plan (refer to S 201 (11)).

e. Over wintering birds

The *Contractor* follows the methodology and restrictions outlined in the Construction Environmental Management Plan (refer to S 201 (11)) and the advice and instruction given by Natural England on such matters.

f. Nesting birds

The *Contractor* follows the methodology and restrictions outlined in the Construction Environmental Management Plan (refer to S 201 (11)).

g. Breeding birds

The *Contractor* follows the methodology and restrictions outlined in the Construction Environmental Management Plan (refer to S 201 (11)).

h. Bats

The *Contractor* follows the methodology and restrictions outlined in the Construction Environmental Management Plan (refer to S 201 (11)).

i. Invertebrates

The *Contractor* follows the methodology and restrictions outlined in the Construction Environmental Management Plan (refer to S 201 (11)).

7) Protective Fencing

The *Contractor* prevents public access to all working areas of the Site.

8) Information Signs

The *Contractor* erects and maintains signage at all working areas to inform the local community of the nature of the *works* taking place and likely access restrictions. This shall include funding stream publicity banners (3m long by 1.5m high) to be provided by the *Client* to be located in positions to be agreed with the *Project Manager*.

9) Lighting

Where, for safety or operational reasons, the *Contractor* uses artificial lighting on the Site, lighting units are shrouded, and lighting is directed away from residential properties, hedgerows and trees.

10) Setting Out

The setting out for the project will be provided to the *Contractor* as 2D co-ordinated tabulated data with associated levels to Above Ordnance Datum (Newlyn). The *Contractor* will establish these lines on site and confirm the position with the *Supervisor* before commencement of any

construction works. The *Contractor* shall check the provision of any level reference points shown on the drawings and confirm the position and level with the *Supervisor* before use for setting out the works. The *Contractor* shall inform the *Project Manager* when all setting out reference points have been agreed, checked and confirmed.

11) Documentation

The *Contractor* prepares the following prior to commencement of the *works* for acceptance by the *Project Manager*. Refer also to section S 201 (1).

- CDM 2015 Construction Phase Plan (being prepared by the *Contractor* under a separate ESE PSC Scope);
- Construction Environmental Management Plan (including pollution response measures and environmental incident reporting and Invasive Non Native Species Management plan) – in developing this working document, the *Contractor* shall consider the recommendations of the following documents (refer to Appendices):
 - Environmental Action Plan (Appendix 7)
 - Arboricultural Method Statement (Appendix 8)
 - Archaeological Written Scheme of Investigation (Appendix 5)
 - Badger Method Statement (Appendix 9)
 - Reptiles and Great Crested Newts Method Statement (Appendix 10)
 - Invasive Non Native Species Survey Report as found in SI 205 of the Site Information
- Traffic Management Plan (being prepared by the *Contractor* under a separate ESE PSC Scope);
- Site Waste Management Plan (being prepared by the *Contractor* under a separate ESE PSC Scope);
- Materials Management Plan; (being prepared by the *Contractor* under a separate ESE PSC Scope)
- Site Environmental Emergency Plan as required by the SHEW CoP.

In planning each construction activity, Method Statements and Risk Assessments are prepared by the *Contractor* in reference to the above documentation. Where any conflict exists between the activity-specific Method Statements and the above documents, this is brought to the attention of the *Project Manager*.

12) Recording of Flood Water Levels

Flooding from the Sowry or KSD and their connecting ditches that prevents access to the works or prevents works from taking place is a will constitute a compensation event.

S 202 Confidentiality

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

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

S 203 Security and protection on the site

Refer to section S 201 (7). No other specific requirements.

S 204 Security and identification of people

The *Contractor* manages the safety of the Site. This includes the incorporation of the safety, security and identification of those entering the site within his Health and Safety procedures.

S 205 Protection of existing structures and services throughout the works

The *Contractor* arranges and procures all service protection arrangements necessary to complete the *works*. Refer also to clause 1.31 of the MTR (Environment Agency's Minimum Technical Requirements (Ref 412_13_SD01 version 9, dated 18/03/2020), hereafter referred to as the MTR) and to section SI 400 of the Site Information.

The *Contractor* is only responsible for damage to existing structures due to the *Contractor's* negligence.

All known existing foundations, springs or other underground works or apparatus, (whether in proper working order or otherwise) shall be supported, maintained and protected by the *Contractor* who shall also provide everything necessary for efficiently dealing with pumping or removing as the case may be, all water, sewage deposit or spill therein or arising there from.

S 206 Protection of the works

Refer to S 201 (7). No other specific requirements.

S 207 Cleanliness of the roads

The *Contractor* shall comply with clause 1.36 of the MTR.

S 208 Traffic management

The *Contractor* shall prepare a Traffic Management Plan under a separate ESE PSC scope to cover all applicable locations to this contract. Any updates to this document, resulting from this Scope, shall be submitted to the *Project Manager* for acceptance under the contract and submitted to the Highway Authority, Somerset County Council for their approval as their requirements may dictate. Refer also to section S 201 (1). The Plan shall demonstrate arrangements for safe management of all forms of traffic in the vicinity of the Site where these may be affected by the *works*, including site personnel and plant, road vehicles of all kinds, cyclists and pedestrians.

S 209 Condition survey

Refer to clause 1.7 of CESWI (7th Edition, referred to hereafter as CESWI) and clause 1.34 of the MTR and section S 1701.

The *Contractor* shall provide the *Project Manager* the data files within 1 week of them being taken and not 4 weeks as stated with clause 1.34 of the MTR.

S 210 Consideration of Others

In managing the interface between haul routes and the highway, cycleway and footpath networks, the *Contractor* establishes and maintains traffic management and crossing points that limit delays to the public that shall be defined under the accepted Traffic Management Plan (See section S 201 (1)). The *Contractor* shall arrange and implement diversion routes in coordination with the Somerset County Council that are clearly signed for a period commencing two weeks prior to diversions commencing until the end of the associated construction works.

Refer also to S 201 (3).

S 211 Control of site personnel

No specific requirements.

S 212 Site cleanliness

Refer to clause 1.5 of both the MTR and CESWI for scope requirements.

S 213 Waste materials

Refer to clause 1.40 of the MTR for scope requirements (The *Contractor* shall prepare the initial draft Site Waste Management Plan under a separate ESE PSC scope), but shall update it accordingly with the requirements of this Scope, undertake and comply with all other aspects as required.

S 214 Deleterious and hazardous materials

Refer to clauses 2.168 of the MTR for scope requirements.

S 300 Contractor's design

S 301 Design responsibility

The *Contractor* is responsible for the design of all temporary works.

S 302 Design submission procedures

The *Contractor's* design submissions include the following:

- Component specifications, including materials, fixings, and reference to relevant standards.
- Design standards and codes of practice.
- Size and/or space limitations.
- Fabrication drawings.
- Loading and capacity requirements and calculations.
- Design philosophy statement.
- Designers Risk Assessments.
- Public Safety Risk Assessments.
- Operation and maintenance procedures.
- Electronic copies of all drawings and specifications for BIM archive.

The design of all *Contractor* designed items are submitted by the *Contractor* to the *Project Manager* for acceptance.

S 303 Design approval from Others

The *Contractor* gains temporary works design acceptance from the *Project Manager* and Others as follows:

- Utilities companies – for all protection measures necessary to complete the *works* and maintain safe and continuous supply of services.
- Environment Agency Flood and Coastal Erosion Risk Management Department – for all temporary works and support to existing structures affected by the *works* through a formal Temporary Flood Risk Activity Permit application.
- Owners of existing structures – for all potential impacts and management of the *works* on existing structures. Ownership is as follows:
 - All private river banks – Information is included in SI 305 Public Information
 - All highway bridges – Somerset County Council
 - Cossington Right outfall and Chilton Right outfall – Environment Agency Estates Department

S 304 Client's requirements

No specific requirements.

S 305 Design co-ordination

Refer to S 201 (1) for programming of submissions and information required.

S 306 Requirements of Others

The *Contractor* designs the temporary works and constructs the *works* in cooperation with Others to comply with Permanent Works Flood Risk Activity Permit and managed by the *Contractor* under a separate ESE PSC scope and its conditions.

S 307 Copyright/licence

No specific requirements.

S 308 Access to information following Completion

No specific requirements.

S 309 Site investigations

No specific requirements.

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*:

- Provide all information to the Principal Designer, if the Principal Designer is compiling the Health and Safety File.
- Population of the *Client*'s latest version of the Project Cost Tool, or its successor
- Transfer to the *Client* databases of BIM data
- Delivery of the Final Carbon Report

The *Contractor* provides an as-built topographical survey of the completed *works* and provides as-built record drawings. The as-built drawings are provided by the *Contractor* as CAD drawings and pdfs. Construction Issue drawings will be provided to the *Contractor* in CAD format for the purposes of preparing as-built record drawings only. Any CAD format drawings provided to the *Contractor* for this purpose are not the Scope.

The *Contractor* shall update the LB Vegetation Clearance Schedule with updated photos following the vegetation clearance works.

S 402 Sectional Completion definition

No specific requirements.

S 403 Training

No specific requirements.

S 404 Final Clean

No specific requirements.

S 405 Security

No specific requirements.

S 406 Correcting Defects

No specific requirements.

S 407 Pre-Completion arrangements

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

S 408 Take over

Operation of any part of the *works* as a flood defence before Completion has been certified does not represent take over in accordance with Clause 35.2 any damage to the *Contractor*'s works resulting from operation of any part of the works as a flood defence would not be classed as a Defect.

S 500 Programme

S 501 Programme requirements

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

S 502 Programme arrangement

Working hours are stated in S 701. Amended from standard to allow flexibility in construction.

S 503 Methodology statement

Refer to clauses 1.40 of the MTR and the Construction (Design and Management) Regulations 2015.

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. Refer as necessary to sections S 901 and S 902.

S 505 Information required

All method statements and Risk Assessments are provided by the *Contractor* to the *Project Manager* and other statutory consultees for acceptance a minimum of one week prior to the planned commencement date of the activities covered.

S 506 Revised programme

No specific requirements.

S 600 Quality management

S 601 Samples

No specific requirements

S 602 Quality Statement

No specific requirements.

S 603 Quality management system

The *Contractor* constructs the *works* in accordance with a formal and independently audited quality management system, and in accordance with the Collaborative Delivery Framework (CDF) agreement.

The *Contractor* appoints a named member of staff who is responsible for delivery of the *works* in accordance with the Scope, the Quality Management System and the CDM 2015 Construction Phase Plan. The *Contractor* monitors and audits the delivery of all parts of the *works* being undertaken in reference to the Scope and reports to the *Project Manager* each week with the results of any audits undertaken. These audits are to include proposals regarding any corrective actions instructed to ensure compliance.

S 604 BIM requirements

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

S 700 Tests and inspections

S 701 Tests and inspections

Refer to project specification in (S 1701).

S 702 Management of tests and inspections

Refer to project specification in (S 1701).

S 703 Covering up completed work

Refer to project specification in (S 1701).

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

Refer to project specification in (S 1701).

S 800 Management of the works

S 801 Project team – Others

The following do not have a named role under the NEC4 ECC conditions of contract but act to advise the *Project Manager* and *Supervisor* in the undertaking of their duties.

- Environment Agency staff – Provides advice
- Environmental Clerk of Works (ECW) – Provides general advice on Environmental Impact Assessment and Ecological matters
- Landscape Architect – Provides advice on landscape matters
- Geomorphologist – Provides advice on creation of WFD features
- Ecologist – Provides advice on works which may impact fauna
- Arboriculturalist – Provides advice on management of trees, hedges, and shrubs

All of the above staff are allowed to visit and inspect the Site and the *works*, but act within the constraints of the *Contractor's* health and safety procedures.

In developing safety plans, construction methodologies and obtaining relevant permissions for land access and to complete the *works* in accordance with their requirements, the *Contractor* liaises with the following organisations and informs the *Project Manager*:

- Utilities companies
- Owners of existing structures
- Landowners and/or tenants

S 802 Communications

The contract is administered using the standard forms and schedules that are incorporated into the Collaborative Delivery Framework (CDF) agreement and administered via the Fast Draft platform.

The Contractor is required to submit the following to the *Project Manager*:

- Monthly programmes.
- Weekly email updates reporting progress to include at a minimum:- progress made over last week, planned works for the next 2 weeks, Potential risks and a brief summary of any new issues arising which could affect programme, cost or quality.
- Monthly progress report
- Attendance at Monthly progress meetings.
- Financial forecasts submitted on a 2 weekly basis as part of the simple progress report for that week.

S 900 Working with the *Client* and Others

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

Refer to sections S 201 (1) and S 201 (2) No other specific requirements.

S 902 Co-operation

The Contractor provides such updates and photos as required to the Somerset Rivers Authority to assist them in with their publicity obligations as required by the LEP Growth Deal Funding.

S 903 Co-ordination

Refer to section S 201 (1). No other specific requirements.

S 904 Authorities and utilities providers

Refer to sections S 201 (1) and S 501. No other specific requirements.

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

The *Contractor* appoints a named member of staff to take the role of Stakeholder Manager, who is responsible for all stakeholder and public liaison relating to the *works*.

The *Contractor* records and manages all communications with stakeholders and the public, including complaints and objections, and reports to the *Project Manager* each week with a summary

The *Contractor* shall ensure that any Public Rights of Way diversions (refer to S 201 (2)) remain accessible for all members of the public.

Through the use of signage and public liaison, the *Contractor* ensures that all stakeholders and landowners are aware of the programming of all the *works* and their potential impact.

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*

Refer to clause 1.2 of CESWI and project specification (S 1701).

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

3 no Funding stream publicity banners (3.0m by 1.0m) shall be provided to the *Contractor* for erection at suitable locations on site for maximum visibility to be agreed with the *Project Manager*. These banners shall be maintained in good condition throughout the period of the Contract and returned to the Environment Agency on completion of the Contract.

S 1100 Health and safety

S 1101 Health and safety requirements

Refer to the *Client's* work specification and to the Construction (Design and Management) (CDM) Regulations 2015.

S 1102 Method statements

Refer to section S 505.

S 1103 Legal requirements

No specific requirements.

S 1104 Inspections

The Contractor undertakes regular Health and Safety Inspections and reports results to the *Project Manager*. The *Client* shall carry out such inspections as required by the *Client's* SHEW Code of Practice and policy. Refer to section S 603.

S 1200 Subcontracting

S 1201 Restrictions or requirements for subcontracting

The *Contractor* appoints, manages and supervises Subcontractors and other suppliers to ensure Completion of the *works* in accordance with the Scope, their Quality Management System and the CDM 2015 Construction Phase Plan. The *Contractor* monitors and audits the performance of Subcontractors and reports to the *Project Manager* each week with the results of any audits and makes proposals regarding any corrective actions instructed to ensure compliance. Refer also to section [S 603](#).

Attention is drawn to Schedule 10 of the Collaborative Delivery Framework (CDF) agreement.

.Acceptance procedures

No specific requirements.

S 1300 Title

S 1301 Marking

No specific requirements.

S 1302 Materials from Excavation and demolition

The *Client* will retain ownership of the arising's from the WFD excavations for re-use as part of Phase 1b works in the bank raising operations. The *Contractor* shall ensure this material is deposited on the bank in accordance with the specification and that the material does not obstruct any existing access tracks or routes.

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

No Specific requirements.

S 1500 Accounts and records (Options C and E)

S 1501 Additional Records

The *Contractor* provides a continuous record of the following, updated daily where changes occur to the information provided, which is used as a single agreed source of information by the *Contractor, Client, Project Manager* and *Supervisor*.

Health and Safety:

- Incidents and Near Misses.
- Issues/Comments:
- Any suspected instances of COVID 19 within the *Contractors* resources on site.
- Any records required for compliance of the Client's SHEW Code of Practice.

Environmental:

- Incidents and Near Misses (Call EA Environmental hotline 0800 169 2103).
- Updating the initial 'Materials Management Plan' originally prepared by the Contractor as part of the ESE PSC Scope, as a working document throughout this contract period.
- Issues/Comments:

Welfare:

- Record of accommodation and facilities.
- Issues/Comments:

Weather:

- Brief report of conditions on site, including ground conditions.
- Daily Rain fall throughout the contract period.
- Issues/Comments relating to impact of weather on the *works*:

Plant on site:

- List of all plant and equipment, including subcontractor's plant.
- Issues/Comments relating to suitability, serviceability and availability.

Staff/Subcontractors on site:

- List of all staff and organisations on site.
- Issues/Comments relating to performance and availability.

Progress:

- Brief description of the *works* in progress.
- *Works* completed.
- Overall programme implications.

Quality:

- Audits, checks and inspections undertaken.

- Potential defects raised.
- Resolution of previous defects.

Public/stakeholder liaison:

- People/organisations/landowners visiting the site, or visited by the *Contractor*.
- Phone calls and emails.
- Issues raised/concerns/complaints.

Photographs:

- Weekly Progress photographs

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 *Client's* work specification is the Civil Engineering Specification for the Water Industry (CESWI) 7th Edition, with amendments and addenda of the Environment Agency's Minimum Technical Requirements (Ref 412_13_SD01 version 9, dated 18/03/2020)), and amendments and addenda of project specific specification defined in this section.

The numbering of the project-specific specification clauses follows the numbering system of the Minimum Technical Requirements, which itself follows the numbering system in CESWI.

Where any conflict exists between the documents, the Minimum Technical Requirements shall prevail over CESWI, and the project specific specification listed in this section shall prevail over the Minimum Technical Requirements. The *Project Manager* shall be informed of any inconsistencies.

Section 1 General

1.26 Noise Control and Working Hours

1. The *Contractor* shall liaise with the Local Authority (Sedgemoor District Council, Environmental Services) and comply with their requirements for noise control.
2. Normal working hours will be from 0700 to 1900 Monday to Sunday, the *Contractor* is responsible for compliance with Working Time Directive 2003. Deviation from the EA SHEW COP working times is to provide the *Contractor* the greatest chance at completing the works in this years working window inclusive of taking advantage of good weather windows. Where practicable, operations which may cause noise and or vibration disturbance should be scheduled for daylight working. The *Contractor* must comply with working hour restrictions as outlined in the Environmental Action Plan.

Section 2 Materials

2.56 Grass Seed

Not required.

2.60 Handrails and Balusters

Not required

2.89 Permanent fencing

Not required.

2.121 Steel Sheet Piles

Not required.

2.126 Timber and Preservation of Timber

9. Not required

10. Details of all timber to be used in the *works* shall be submitted to the *Project Manager* for acceptance.

2.127 Trees and Shrubs

Not required.

2.174 Concreting Against Existing Surfaces

1. Where the Contract requires that concrete be placed against an existing concrete face or surface then, prior to the erection of any reinforcement or formwork in front of the existing surface, the face shall be cleaned of all vegetable matter, dirt and loose cement or mortar using wire brushing and high-pressure water jetting. The *Supervisor* shall be given the opportunity to inspect the face and his acceptance shall be obtained before the face is covered or obstructed. Where a new concrete structure is to be cast onto an existing concrete structure a bonding compound such as Fosroc Nitobond EP or similar approved shall be applied to horizontal joints in accordance with manufacturer's instructions.

2.175 Welding

Not required

2.176 Fixings for Timber

1. Bolt holes in timber should have a diameter not more than 1 mm larger than the bolt. Bolt holes in steel plates should have a diameter not more than 2 mm or 0.1d (whichever is the greater) larger than the bolt diameter d.
2. Washers with a side length or a diameter of at least 3d and a thickness of at least 0.3d should be used under the head and nut. Washers should have a full bearing area.
3. Bolts and lag screws should be tightened so that the members fit closely, and they should be re-tightened if necessary when the timber has reached equilibrium moisture content to ensure that the load-carrying capacity and stiffness of the structure is maintained.
4. The minimum diameter requirements of bolts and timber connectors are given in BS EN 1995-1-1 Table 10.1, below.

d_c is the connector diameter, in mm;

d is the bolt diameter, in mm

d_1 is the diameter of centre hole of connector.

| Type of connector EN 912 | d_c | d minimum | d maximum |
|-----------------------------|------------|----------------|----------------|
| | mm | mm | mm |
| A1 – A6 | ≤ 130 | 12 | 24 |
| A1, A4, A6 | > 130 | $0,1 d_c$ | 24 |
| B | | $d_1 - 1$ | d_1 |

Section 3 Excavation, Backfilling and Restoration

3.10 Trees

6. No trees or shrubs shall be pruned or cleared from site until setting-out work in the relevant area has been completed, unless such clearance is itself necessary for completion of setting out and has been explicitly approved by the *Project Manager*.
7. Prior to any pruning or felling operations, all specimens affected shall be clearly marked by means of an easily visible band of paint, and such markings shall be approved by the *Project Manager* as "essential" before such operations are undertaken.
8. Where trees are specified for removal, tree roots shall not be grubbed up. Tree stumps shall be cut to ground level.

3.13 Filling Above Ground

4. The Specification for earthworks shall be the 'Specification for Highway Works (SHW) Series 600 Earthworks' published by the Stationery Office as Volume 1 of the Manual of Contract Documents for Highway Works (MCHW). The control and management of earthworks shall be in general accordance with the requirements of the SHW, except that allowable fill material shall include peat or materials containing peat or other organic material won from site.
5. Where the SHW uses the term 'Overseeing Organisation' this will be interpreted as the *Project Manager*.
6. Fill for raising of embankments shall be locally won from adjacent fields, embankments, other borrow areas or external sites as agreed with the *Project Manager*.
7. Fill placed in order to raise embankments shall be placed in the locations described in the contract Drawings and shall be placed and compacted in accordance with the requirements of the SHW for Class 4 fill to Landscape Areas.
8. The degree of compaction of fill material shall be sufficient to remove large voids and to produce a coherent mass whilst preventing over-compaction and any build-up of excess pore pressures.

3.23 Testing of Fill Material

1. Tests comparable to those specified will be necessary for any equivalent work, goods or materials proposed by the *Contractor*.
2. (N) indicates that a test report or certificate is required from a UKAS (NAMAS) accredited source.
3. Unless otherwise shown, tests for work, goods or materials as scheduled under any one Clause are required for all such work, goods or materials in the Works.
4. All sampling and testing will be carried out by the *Contractor*.

| Testing | Frequency |
|------------------------|-------------------------|
| MC/Bulk density (N) in | 1 per 500m ³ |

| | |
|----------------------------------|-------------------------|
| accordance with BS 1377: Part 2 | |
| Soil chemical suite E (soil) (N) | 1 per 500m ³ |

Section 4 Concrete and Formwork

Not required

S 1702 Drawings

The following drawings are included in the Scope.

[illegible]

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 (CCD-Contractors Cost Data) | Costs |
| | 300_10 SHE handbook for managing capital projects | |
| | 300_10_SD27 SHE Code of Practice | |

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.

