[redacted]

NEC4 Engineering and Construction

Short Contract

FCRM Operational Framework – LNA Hub

A contract between	[redacted]
And	
For	**LNA FY2022-23 Embankments & Badgers Programme**
	Contract Forms - **Contract Data** - **The *Contractor's* Offer and *Client's* Acceptance** - **Price List** - **Scope** - **Site Information**

Contract Data

The *Client's* Contract Data

	The *Client* is	
Name	[redacted]	
Address for communications		
Address for electronic communications		
The *works* are	Badger exclusion and embankment repairs	
The *site* is	Various in LNA Witham & SHEC	
The *starting date* is	[redacted]	
The *completion date* for each Section of the *works* is	Section 1 – All badger works [redacted] Section 2 - site 4 - SP22-03 Tetney Bank and Headwall and site 10 - Timberland Bank Seepage and topsoiling, grass seeding, and site clearance for all sites [redacted]	
The *completion date* is	[redacted]	
The *delay damages* are	[redacted]	
The *period* for reply is	2	weeks
The *defects date* is	52	weeks after Completion
The *defects correction period* is	4	weeks
The *assessment day* is	TBC	of each month

The *retention* is [redacted]
The United Kingdom Housing Grants, Construction and Regeneration Act (1996) **does** apply
The *Adjudicator* is :
In the event that a first dispute is referred to adjudication, the referring Party at the same time applies to the Institution of Civil Engineers to appoint an *Adjudicator*. The application to the Institution includes a copy of this definition of the *Adjudicator*. The referring Party pays the administrative charge made by the Institution. The person appointed is also *Adjudicator* for later disputes.

Contract Data

The *Client's* Contract Data

The interest rate on late payment is [redacted]	% per complete week of delay.

Insert a rate only if a rate less than 0.5% per week [redacted] delay has been agreed.

For any one event, the liability of the *Contractor* to the *Client* for loss of or damage to the *Client's* property is limited to	[redacted]
The *Client* provides this insurance	None

Insurance Table

Event	[redacted]	**Cover provided until**
Loss of or damage to the *works*		The *Client's* certificate of Completion has been issued
Loss of or damage to Equipment, Plant and Materials		The defects Certificate has been issued
The *Contractor's* liability for loss of or damage to property (except the *works*, Plant and Materials and Equipment) and for bodily injury to or death of a person (not an employee of the *Contractor*) arising from or in connection with the *Contractor's* Providing the *Works*		

Liability for death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract	[redacted]	
Failure of the *Contractor* to use the skill and care normally used by professionals providing *works* similar to the *works*		6 years following Completion of the whole of the *works* or earlier termination

The *Adjudicator nominating body* is	The Institution of Civil Engineers
The *tribunal* is	litigation in the courts

The *conditions of contract* are the NEC4 Engineering and Construction Short Contract June 2017 and the following additional conditions

Only enter details here if additional conditions are required.

Z1.0	Sub-contracting
Z1.1	The *Contractor* submits the name of each proposed subcontractor to the *Client* for acceptance. A reason for not accepting the subcontractor is that their appointment will not allow the *Contractor* to Provide the *Works*. The *Contractor* does not appoint a proposed subcontractor until the *Client* has accepted them.
Z1.2	Payment to subcontractors and suppliers will be no more than 30 days from receipt of invoice.
Z2.0	Environment Agency as a regulatory authority
Z2.1	The Environment Agency's position as a regulatory authority and as *Client* under the contract is separate and distinct. Actions taken in one capacity are deemed not to be taken in the other.
Z2.2	Where statutory consents must be obtained from the Environment Agency in its capacity as a regulatory authority, the *Contractor* is responsible for obtaining these and paying fees (unless stated otherwise in the Scope). The *Client's* acceptance of a tender and the *Client's* instruction or variation of the *works* does not constitute statutory approval or consent.
Z2.3	An action by the Environment Agency as regulatory authority is not in its capacity as *Client* and is not a compensation event.
Z3.0	Confidentiality & Publicity
Z3.1	The *Contractor* may publicise the *works* only with the *Client's* written agreement.
Z4.0	Correctness of Site Information
Z4.1	Site Information about the ground, subsoil, ducts, cables, pipes and structures is provided in good faith by the *Client* but is not warranted correct. The *Contractor* checks the correctness of any such Site Information they rely on for the purpose of Providing the *Works*.
Z5.0	The Contracts (Rights of Third Parties) Act 1999
Z5.1	For the purposes of the Contracts (Rights of Third Parties) Act 1999, nothing in this contract confers or purports to confer on a third party any benefit or any right to enforce a term of this contract.
Z6.0	Design
Z6.1	Where design is undertaken, it is the obligation of the *Contractor* to ensure the use of skill and care normally used by professionals providing similar design services.
Z6.2	The *Contractor* designs the parts of the *works* which the Scope states they are to design.
Z6.3	The *Contractor* submits the particulars of their design as the Scope requires to the *Client* for acceptance. A reason for not accepting the *Contractor's* design is that it does not comply with either the Scope or the applicable law. The *Contractor* does not proceed with the relevant work until the *Client* has accepted this design.

Z6.4	The *Contractor* may submit their design for acceptance in parts if the design of each part can be assessed fully.
Z7.0	Change to Compensation Events
Z7.1	Delete the text of Clause 60.1(11) and replace by: The *works* are affected by any one of the following events • War, civil war, rebellion revolution, insurrection, military or usurped power • Strikes, riots and civil commotion not confined to the employees of the *Contractor* and sub-contractors • Ionising radiation or radioactive contamination from nuclear fuel or nuclear waste resulting from the combustion of nuclear fuel • Radioactive, toxic, explosive or other hazardous properties of an explosive nuclear device • Natural disaster • Fire and explosion • Impact by aircraft or other device or thing dropped from them
Z8.0	Framework Agreement
Z8.1	The *Contractor* shall ensure at all times during this contract it complies with all the obligations and conditions of the Framework Agreement made with the *Client*.
Z9.0	Termination
Z9.1	Delete the text of Clause 92.3 and replace with: If the *Contractor* terminates for Reason 1 or 6, the amount due on termination also includes 5% of any excess of a forecast of the amount due at Completion had there been no termination over the amount due on termination assessed as for normal payments.
Z10.0	Data Protection
Z10.1	The requirements of the Data Protection Schedule shall be incorporated into this contract
Z11.0	Liabilities and Insurance
Z11.1	Civil data protection claims and regulatory fines for breaches of Data Protection Legislation are excluded from any limit of liability stated.
Z12.0	Packaging
Z12.1	For contracts containing packages of projects the *Client's* Site Information, Specifications and constraints particular to an individual project are contained within its Scheme Information Document (SID).
Z30.0	Material Price Volatility The *Client* recognises the ongoing pricing uncertainty in relation to materials for the period from 1 July 2021 to 30 June 2022 the *Client* will mitigate this additional cost through this clause. Payment is made per assessment based upon a general average material proportion within assessments, calculated at 40%.
Z30.1	Defined terms a) The Latest Index (L) is the latest index as issued by the Client. The L, which is at the discretion of the Client, is based upon the issued consumer price index ((CPI) based upon the 12-month rate) before the date of assessment of an amount due. b) The Price Volatility Provision (PVP) at each date of assessment of an amount due is the total of the Material Factor as defined below multiplied by L for the index linked to it. c) Material Factor (MF) 40% is used, based on a general average material proportion across our programme. The volatility provision is only associated with material element. No volatility provision is applicable to any other component of costs.
Z30.2	Price Volatility Provision Through a Compensation Event the Client shall pay the PVP. PVP is calculated as:

	Assessment x MF x L = PVP
Z30.3	Price Increase Each time the amount due is assessed, an amount for price increase is added to the total of the Prices which is the change in the Price for Work Done to Date for the materials component only (and the corresponding proportion) since the last assessment of the amount due multiplied PVP for the date of the current assessment.
Z30.4	Compensation Events The *Contractor* shall submit a compensation event for the PVP on a monthly basis (where applicable) capturing Defined Cost only for the PWDD increase in month. Forecasted costs should only be considered for the June 2023 period compensation event.

Assessment Date	Defined Cost?	Forecasted Cost?
31st Jul 21	In period costs only	No
31st Aug 21	In period costs only	No
30th Sept 21	In period costs only	No
31st Oct 21	In period costs only	No
30th Nov 21	In period costs only	No
31st Dec 21	In period costs only	No
31st Jan 22	In period costs only	No
28th Feb 22	In period costs only	No
31st Mar 22	In period costs only	No
30th Apr 22	In period costs only	No
31st May 22	In period costs only	No
30th Jun 22	In period costs only	No
31st Jul 22	In period costs only	No
31st Aug 22	In period costs only	No
30th Sept 22	In period costs only	No
31st Oct 22	In period costs only	No
30th Nov 22	In period costs only	No
31st Dec 22	In period costs only	No
31st Jan 23	In period costs only	No
28th Feb 23	In period costs only	No
31st Mar 23	In period costs only	No
30th Apr 23	In period costs only	No
31st May 23	In period costs only	No
30th Jun 23	In period costs only	Forecasted costs for remainder of contract

The Defined Cost for compensation events is assessed using

- the Defined Cost at base date levels for amounts calculated from rates stated in the Contract Data for People and Equipment and

- the Defined Cost current at the date the compensation event was notified, adjusted to the base date by 1+PVP for the last assessment of the amount due before that date, for other amounts.

Z31	Sectional Completion In these conditions of contract, unless stated as the whole of the *works*, each reference and clause relevant to - the *works* - Completion and - *completion date* applies, as the case may be to either the whole of the *works* or any *section* of the *works*.

Contract Data

The *Contractor's* Contract Data

	The *Contractor* is	
Name	[redacted]	
Address for communications		
Address for electronic communications		
The *fee* percentage is		
The *people rates* are		
category of person	unit	rate
The *published list of Equipment* is		
The *percentage for adjustment for Equipment* is		

Contract Data

The *Contractor's* Offer and *Client's* Acceptance

The *Contractor* offers to Provide the *Works* in accordance with these *conditions of contract* for an amount to be determined in accordance with these *conditions of contract*.

The offered total of the Prices is	[redacted]
	Enter the total of the Prices from the Price List.
Signed on behalf of the *Contractor*	[redacted]
Name	
Position	
Signature	
Date	[redacted]

The *Client* accepts the *Contractor's* Offer to Provide the *Works*

Signed on behalf of the *Client*	[redacted]
Name	
Position	
Signature	
Date	

Price List

Entries in the first four columns in this Price List are made either by the *Client* or the tenderer.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price Column only: the Unit, Quantity and rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters the rate which is then multiplied by the expected quantity to produce the Price, which is also entered.

Item Number	Description	Unit	Quantity	Rate	Price
	Delivery of all *works*, including but not limited to site access; accommodation; management; survey; enabling *works*; repair; and production of H&S/ O&M manual at the following sites:				
01	**River Till Broxholme**				
	1.1 Prelims				
	1.2 *Works* Required Following Successful Monitoring: Rebuilding of Flood Bank				
	1.2.1 Remove and set aside one-way badger gates for re-use				
	1.2.2 Remove temporary mesh and store for re-use				
	1.2.3 Remove ground pins and store for re-use				
	1.2.4 Supply and install a piled barrier between the rear berm and embankment (piles to be minimum 2.5 metres in length)				
	1.2.5 Prep area for permanent meshing (embankment and berm outside of newly constructed piled area) by stripping topsoil to a depth of 150mm and store for re-use (50 linear meters)				
	1.2.6 Deconstruct all tunnels within the embankment. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 20 linear metres)				

	1.2.7 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)	[redacted]
	1.2.8 Relay the previously removed temporary mesh as permanent as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)	
	1.2.9 Secure meshing with ground pins	
	1.2.10 Re-proof any gaps in meshing left from badger gate removal as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (minimum 150mm overlap on all sides). Mesh supplied by the *Client*	
	1.2.11 Re-Lay and comp	
	1.2.12 Trim and grade bank to match adjacent profile at excavated topsoil 150mm deep	
	1.3 Install a further 200 metres of permanent mesh	
	1.3.1 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (200 linear meters)	
	1.3.2 Lay mesh as permanent to a full wrap design	
	1.3.3 Secure meshing with ground pins	
	1.3.4 Re-Lay and compact excavated topsoil 150mm deep	
	1.3.5 Trim and grade bank to match adjacent profile	
	1.3.6 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)	
	1.3.7 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)	
02	**SP31-05R Greyfleet Drain Grimoldby**	
	2.1 Prelims	
	2.2 *Works* Required Following Successful Monitoring: Rebuilding of Flood Bank	
	2.2.1 Remove and set aside one-way badger gates for re-use	
	2.2.2 Remove temporary mesh and store for re-use	
	2.2.3 Remove ground pins and store for re-use	

	2.2.4 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)	[redacted]			
	2.2.5 Deconstruct all tunnels. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 30 linear metres)				
	2.2.6 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)				
	2.2.7 Relay the previously removed temporary mesh as permanent from toe to toe plus 1m deep on each side, inserted into narrow trench				
	2.2.8 Secure meshing with ground pins				
	2.2.9 Re-proof any gaps in meshing left from badger gate removal as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (minimum 150mm overlap on all sides) Mesh supplied by the *Client*				
	2.2.10 Re-Lay and compact excavated topsoil 150mm deep				
	2.2.11 Trim and grade bank to match adjacent profile				
	2.2.12 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage				
	2.2.13 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)				
03	**SP5-03C Torksey**				
	3.1 Prelims				
	3.2 *Works* Required for Outlier Setts 2 and 4 Exclusion: Mesh Covering of Existing Sett in Embankment				
	3.2.1 Secure meshing with ground pins (both setts)				
	3.2.2 Cut mesh in readiness for badger gate installation. All badger sett entrances must be left clear and accessible to provide unhindered access to badgers				
	3.2.3 Supply one-way badger gates as per Specification				
	3.2.4 Install one-way badger gates as per Specification (once exclusion licence received)				
	3.2.5 Undertake monitoring of the badger gates as per licence conditions (minimum of every 3 days for a 21day inclusive period)				

	3.2.6 Localised deconstruction of tunnels. All tunnels must be collapsed and chased back to their ends and bank reinstated (estimated length of tunnel section 5 linear metres)				
	3.3 *Works* Required to Live-Dig Main Badger Sett 1 and Rebuild Flood bank				
	3.3.1 Supply 3.6m piles to be installed as underground barrier as per design				
	3.3.2 Dig trench to install piles as per design and identify tunnel systems extending underneath floodbank				
	3.3.3 Install piles and back fill				
	3.3.4 Deconstruct all badger tunnels within/under flood bank. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 70 linear metres)				
	3.3.5 Remove piles from centre of the embankment (estimated)				
	3.3.6 Reconstruct bank in compacted layers, using existing materials (Note that volume measurement is based on half section of the embankment as it thought badgers have not breached piles)				
	3.4 *Works* Required Following Rebuilding of Flood bank				
	3.4.1 Prep area for permanent meshing by stripping topsoil off to a depth of 150mm and store for re-use (135 linear meters)				
	3.4.2 Supply HT weld mesh, 50mm x 50mm aperture, 12 gauge				
	3.4.3 Lay permanent mesh in full wrap design, ensuring dug in 1.15m deep on each side, as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)				
	3.4.4 Secure meshing with ground pins				
	3.4.5 Re-Lay and compact excavated topsoil 150mm deep				
	3.4.6 Trim and grade bank to match adjacent profile				
	3.4.7 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)				
	3.4.8 Maintenance of repaired embankment to ensure good grass coverage (12 months)				
04	**<u>SP22-03 Tetney Bank and Headwall</u>**				
	4.1 Prelims				
	4.2 Design and build an inlet/outfall into Mother Drain ensuring the crest is at the required height and plant can safely pass over.				
05	**<u>SP22-02C Louth Canal</u>**				

	5.1 Prelims
	5.2 *Works* Required for Exclusion: Mesh Covering of Existing Sett in Embankment
	5.2.1 Undertake 50 linear metre temporary meshing of riverbank as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (Wrap length is to be increased by 2m to allow for underground barrier, as per Specification, when installed as permanent). Mesh to be HT welded mesh, 50mm x 50mm aperture (12 gauge)
	5.2.2 Secure meshing with ground pins
	5.2.3 Cut mesh in readiness for badger gate installation. All badger sett entrances must be left clear and accessible to provide unhindered access to badgers
	5.2.4 Supply one-way badger gates as per Specification
	5.2.5 Supply 1x 6m x 300mm drainage pipe to use for badger entrances as per Specification
	5.2.6 Install one-way badger gates as per Specification (once exclusion licence received)
	5.2.7 Undertake monitoring of the badger gates as per licence conditions (minimum of every 3 days for a 21day inclusive period)
	5.3 *Works* Required Following Successful Monitoring: Rebuilding of Flood bank
	5.3.1 Remove and set aside one-way badger gates for re-use
	5.3.2 Remove temporary mesh and store for re-use
	5.3.3 Remove ground pins and store for re-use
	5.3.4 Prep area for permanent meshing (embankment and berm outside of newly constructed piled area) by stripping topsoil to a depth of 150mm and store for re-use (50 linear meters)
	5.3.5 Deconstruct all tunnels within the embankment. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 20 linear metres)
	5.3.6 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)
	5.3.7 Relay the previously removed temporary mesh as permanent as Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)
	5.3.8 Secure meshing with ground pins

	5.3.9 Re-proof any gaps in meshing left from badger gate removal as per Specification (minimum 150mm overlap on all sides) Mesh supplied by the *Client*
	5.3.10 Re-Lay and compact excavated topsoil 150mm deep
	5.3.11 Trim and grade bank to match adjacent profile
	5.4 Install a further 200 metres of permanent mesh
	5.4.1 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)
	5.4.2 Lay mesh as permanent to a full wrap design
	5.4.3 Secure meshing with ground pins
	5.4.4 Re-Lay and compact excavated topsoil 150mm deep
	5.4.5 Trim and grade bank to match adjacent profile
	5.4.6 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage
	5.4.7 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)
06	**SP24-04C Louth Canal**
	6.1 Prelims
	6.2 *Works* Required Following Successful Monitoring: Rebuilding of Flood bank
	6.2.1 Strip topsoil to a depth of 150mm and store for re-use (30 linear meters)
	6.2.2 Deconstruct all tunnels. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 20 linear metres)
	6.2.3 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)
	6.2.4 Re-Lay and compact excavated topsoil 150mm deep
	6.2.5 Trim and grade bank to match adjacent profile
	6.2.6 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage

	6.2.7 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)	[redacted]
07	**SP22-09C West of Lordships**	
	7.1 Prelims	
	7.2 Install 100 metres of permanent mesh adjacent to the Artificial Sett (Under supervision of ECoW)	
	7.2.1 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)	
	7.2.2 Lay mesh as permanent to a full wrap design	
	7.2.3 Secure meshing with ground pins	
	7.2.4 Re-Lay and compact excavated topsoil 150mm deep	
	7.2.5 Trim and grade bank to match adjacent profile	
	7.3 *Works* Required for Exclusion	
	7.3.1 Undertake 50 linear metre temporary meshing of riverbank at each of the two setts to be excluded as per scope and in line with Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (Wrap length is to be increased by 2m to allow for underground barrier, as per Specification, when installed as permanent). Mesh to be HT welded mesh, 50mm x 50mm aperture (12 gauge)	
	7.3.2 Secure meshing with ground pins	
	7.3.3 Cut mesh in readiness for badger gate installation. All badger sett entrances must be left clear and accessible to provide unhindered access to badgers	
	7.3.4 Supply one-way badger gates as per Specification for Installation of Badger Gates v1 (Appendix 3.3)	
	7.3.5 Supply 1x 6m x 300mm drainage pipe to use for badger entrances as per Specification for Installation of Badger Gates v1 (Appendix 3.3)	
	7.3.6 Install one-way badger gates as per Specification for Installation of Badger Gates v1 (Appendix 3.3) (once exclusion licence received)	
	7.3.7 Undertake monitoring of the badger gates as per Badger exclusion licence conditions (minimum of every 3 days for a 21day inclusive period)	
	7.4 *Works* Required Following Successful Monitoring: Rebuilding of Flood bank	
	7.4.1 Remove and set aside one-way badger gates for re-use	

	7.4.2 Remove temporary mesh and store for re-use	
	7.4.3 Remove ground pins and store for re-use	
	7.4.4 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (2 x 50 linear meters)	
	7.4.5 Remove to tip, sheet piling located between embankment and watercourse. 20lm length unknown.	
	7.4.6 Deconstruct all tunnels within the embankment. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 2 x 20 linear metres	
	7.4.7 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)	
	7.4.8 Relay the previously removed temporary mesh as permanent as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)	
	7.4.9 Secure meshing with ground pins	
	7.4.10 Re-proof any gaps in meshing left from badger gate removal (minimum 150mm overlap on all sides) Mesh supplied by the *Client*	
	7.4.11 Re-Lay and compact excavated topsoil 150mm deep	
	7.4.12 Trim and grade bank to match adjacent profile	
	7.5 Install a further 100 metres of permanent mesh	
	7.5.1 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)	
	7.5.2 Lay mesh as permanent to a full wrap design	
	7.5.3 Secure meshing with ground pins	
	7.5.4 Re-Lay and compact excavated topsoil 150mm deep	
	7.5.5 Trim and grade bank to match adjacent profile	
	7.5.6 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)	
	7.5.7 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)	

	7.5.8 Mow the vegetation on the embankment on completion of the rebuilding *works*. Approx. length 2km.	
08	**SP22-17C North Somercotes**	
	8.1 Prelims	
	8.2 *Works* Required for Exclusion	
	8.2.1 Cut vegetation on the embankment to accommodate the installation of exclusion mesh	
	8.2.2 Undertake 75 linear metre temporary meshing of riverbank in line with Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2). (Wrap length is to be increased by 2m to allow for underground barrier, as per Specification, when installed as permanent). Mesh to be HT welded mesh, 50mm x 50mm aperture (12 gauge)	
	8.2.3 Secure meshing with ground pins	
	8.2.4 Cut mesh in readiness for badger gate installation. All badger sett entrances must be left clear and accessible to provide unhindered access to badgers	
	8.2.5 Supply one-way badger gates as per Specification for Installation of Badger Gates v1 (Appendix 3.3)	
	8.2.6 Supply 1x 6m x 300mm drainage pipe to use for badger entrances as per Specification for Installation of Badger Gates v1 (Appendix 3.3)	
	8.2.7 Install one-way badger gates as per Specification for Installation of Badger Gates v1 (Appendix 3.3) (once exclusion licence received)	
	8.2.8 If required by the *Client's* badger ecologist, attend site to fix or alter the exclusion meshing. (*Works* to be stopped whilst the *Client's* badger ecologist monitors the sett for minimum of 21 days to confirm the exclusion has been thorough and complete).	
	8.3 *Works* Required Following Successful Monitoring: Rebuilding of Flood bank	
	8.3.1 Remove and set aside one-way badger gates for re-use	
	8.3.2 Remove temporary mesh and store for re-use	
	8.3.3 Remove ground pins and store for re-use	
	8.3.4 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use	
	8.3.5 Deconstruct all tunnels within the embankment. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 30 linear metres	
	8.3.6 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent	

	embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)
	8.3.7 Relay the previously removed temporary mesh as permanent as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)
	8.3.8 Secure meshing with ground pins
	8.3.9 Re-proof any gaps in meshing left from badger gate removal as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (minimum 150mm overlap on all sides) Mesh supplied by the *Client*
	8.3.10 Re-Lay and compact excavated topsoil 150mm deep
	8.3.11 Trim and grade bank to match adjacent profile
	8.4 Install a further 100 metres of permanent mesh
	8.4.1 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)
	8.4.2 Lay mesh as permanent to a full wrap design
	8.4.3 Secure meshing with ground pins
	8.4.4 Re-Lay and compact excavated topsoil 150mm deep
	8.4.5 Trim and grade bank to match adjacent profile
	8.4.6 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)
	8.4.7 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)
09	**SP7-03C Stapleford**
	9.1 Prelims
	9.2 *Works* Required Following Successful Monitoring: Rebuilding of Flood bank
	9.2.1 Remove and set aside one-way badger gates for re-use
	9.2.2 Remove temporary mesh and store for re-use
	9.2.3 Remove ground pins and store for re-use
	9.2.4 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)
	9.2.5 Deconstruct all tunnels. All tunnels must be collapsed and chased back to their ends

	(estimated length of tunnel section 30 linear metres)
	9.2.6 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)
	9.2.7 Relay the previously removed temporary mesh as permanent from toe to toe plus 1m deep on each side, inserted into narrow trench as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)
	9.2.8 Secure meshing with ground pins
	9.2.9 Re-proof any gaps in meshing left from badger gate removal as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (minimum 150mm overlap on all sides) Mesh supplied by the *Client*
	9.2.10 Re-Lay and compact excavated topsoil 150mm deep
	9.2.11 Trim and grade bank to match adjacent profile
	9.2.12 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix)
	9.2.13 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)
10	**Timberland Bank Seepage**
	10.1 Prelims
	10.2 Remove all trees/bushes along with root balls, for 200 metres upstream of the confluence. Root ball holes to be filled with a clay material and compacted with the excavator bucket. Tree roots to be carted off site and correctly disposed with brash chipped and spread on the rear berm.
	10.3 For a length of 200m starting 30m from the access gate, strip the topsoil from the crest and landward side of the embankment and set aside for reuse.
	10.4 Dig to a depth of 2m below topsoil level over a total length of 200m, 600mm width and replace dug embankment material with imported clay.
	10.5 Humanely despatch any rabbits residing in the embankment and collapse tunnel systems.
	10.6 Seed all worked areas of embankment
	10.7 Maintain re-seeded area to prevent weed growth and establish healthy grass swath for 12 months after completion of construction *works*.

The total of the Prices	[redacted]

The method and rules used to compile the Price List are

Civil Engineering Specification for the Water Industry, 7th Edition (CESWI7) as per the Framework Price Workbook.

Quantities in the price list are given as an indication and the paid amount for an item will be adjusted if the quantity of work in the item changes.

The total of the Prices (and therefore, the Price for each item) must include all items necessary to deliver the *works* and meet the requirements of the Scope, including all prelims, overheads and profit. This includes, but is not limited to, items such as: site accommodation; technological provisions (eg. Wifi); progress meetings; and project administration.

The *Contractor* may sub-divide each item in the Price List as necessary, but the total of each sub-item must add to the Price for that item, and the total of each Price must add to the total of the Prices.

Scope

1. Description of the *works*

Give a detailed description of what the *Contractor* is required to do and of any work the *Contractor* is to design.

For the avoidance of doubt, in the case of conflict, this Scope takes precedence over any 'scope' items included within the Scheme Information Document (SID) for each site. The SID is provided as Site Information only.

Background

Sites included for this Embankments and Badgers *works* bundle for 2022/23 are:

1. River Till left bank at Broxholme
2. SP31-05R Greyfleet Drain Grimoldby
3. SP5-03C Torksey
4. SP22-03 Tetney Bank and Headwall
5. SP22-02C Louth Canal

6. SP24-04C Louth Canal
7. SP22-09C West of Lordships
8. SP22-17C North Somercotes
9. SP7-03C Stapleford
10. Timberland Bank Seepage

The Client has included 10 projects in the scope of *works*, for delivery in the 22/23 financial year. The *Client* may also, at its sole discretion, add a similar amount of projects through a compensation event, for similar maintenance and improvement *works* in the same or next financial year 2023/24.

The *Client* has engaged the services of a specialist approved badger Ecologist who will act as ECoW on these projects. The *Contractor* will be expected to co-ordinate the *works* with the approved Ecologist who will apply for the exclusion licences for each sett. The *Client's* badger ecologist will also supervise all *works* to each badger sett including the fitting of gates, mesh and excavations.

Sectional Completion

All badger *works* are to be delivered by the [redacted] Badger *works* are any *works* related to or enabling badger exclusion, sett collapsing and remediation of the embankments. The only *works* **not** considered to be badger *works* for each site are: the topsoiling, grass seeding and final site clearance.

The sites/ *works* which can be completed after this date, but before the [redacted] are:
- Site 4 - SP22-03 Tetney Bank and Headwall
- Site 10 - Timberland Bank Seepage
- The topsoiling, grass seeding, and final site clearance for all sites.

Delay damages will be applied to both the *sectional completion date* and the *completion date.*

Location Plans for Sites

Appendix 2.1 – River Till Left Bank at Broxholme
Appendix 2.2 – Greyfleet Drain Grimoldby
Appendix 2.3 - Torksey
Appendix 2.4 - Tetney Bank and Headwall
Appendix 2.5 - Louth Canal
Appendix 2.6 - Louth Canal
Appendix 2.7 - West of Lordships
Appendix 2.8 - North Somercotes
Appendix 2.9 - Stapleford
Appendix 2.10 -Timberland Bank Seepage

1.1.1 – The Objectives

Work is required to ensure that the assets continue to deliver the required level of service for the duration of their design lives.

1.1.2 – The *works*

For each Site, The *Contractor* will undertake the following requirements:

- Identify what associated licences/permits/consents/approvals (for example; environmental permits, entry into water permits, Natural England approvals, MMO licence, Highway closures/restrictions, utilities *works* requirement and other project related approvals) are needed for specific *works* (using the tracker in Appendix 4.1). The Environment Agency FRAP has been applied for by the *Client.* This will be transferred to the *Contractor* following successful tender and payment of transfer fee to the Environment Agency. Additional information may be required by the Environment Agency on the methodology before this transfer can be completed.

- Produce detailed programme/schedule and project plan to ensure that the scope, project deliverables and milestones are clearly defined. This project plan should include key risks and mitigation plan.
- Develop and maintain a weekly report on the projects with focus on critical path, deliverables, key milestones, risks and mitigation.
- Liaise with *Client's* Ecologist before starting the *works* and during.

The *Contractor,* shall undertake the following *works,* as set out on a site-by-site basis:

1. **River Till left bank at Broxholme**

   Background:

   There is an active badger sett in the berm behind the raised earth flood embankment which has existed for a number of years. Recent badger activity has included burrowing close to and under the flood embankment thus providing paths for flood water to pass under and through the raised earth flood embankment.

   A project is required to ensure the integrity of the flood defence for the next ten years. *Works* to be carried out and funding available in 2022/23.

   Works to construct an artificial badger sett and exclude badgers from existing sett (including monitoring) will have been carried out prior to the *works* below and do not need to be priced.

   Scope

   1.1 Remove and set aside one-way badger gates for re-use

   1.2 Remove temporary mesh and store for re-use

   1.3 Remove ground pins and store for re-use

   1.4 Supply and install a piled barrier between the rear berm and embankment (piles to be minimum 2.5 metres in length and installed below topsoil level.)

   1.5 Prep area for permanent meshing (embankment and berm outside of newly constructed piled area) by stripping topsoil to a depth of 150mm and store for re-use (50 linear meters)

   1.6 Deconstruct all tunnels within the embankment. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 20 linear metres)

   1.7 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)

   1.8 Secure meshing with ground pins

   1.9 Re-proof any gaps in meshing left from badger gate removal as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (minimum 150mm overlap on all sides). Mesh supplied by *Client*.

   1.10 Re-Lay and compact

   1.11 Trim and grade bank to match adjacent profile at excavated topsoil 150mm deep

   1.12 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (200 linear meters)

   1.13 Lay mesh as permanent to a full wrap design

   1.14 Secure meshing with ground pins

   1.15 Re-Lay and compact excavated topsoil 150mm deep

1.16 Trim and grade bank to match adjacent profile

1.17 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)

1.18 Provide maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)

2. SP31-05R Greyfleet Drain Grimoldby

Background

Greyfleet Drain is included in the Louth Coastal CFMP and it is in a policy 4 area, where policy 4 is to: Take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change).

Greyfleet Drain flows in an easterly direction between raised earth flood embankments down to the tidal limit at Saltfleet. Inspection has highlighted that the flood defence has fallen below its target asset condition score due to the presence of a badger sett. *Works* are funded and to be completed during 2022/23

Works to construct an artificial badger sett and exclude badgers from existing sett (including monitoring) will have been carried out prior to the *works* below and do not need to be priced.

Scope

2.1 *Works* Required Following Successful Monitoring: Rebuilding of Flood Bank

2.1.1 Remove and set aside one-way badger gates for re-use

2.1.2 Remove temporary mesh and store for re-use

2.1.3 Remove ground pins and store for re-use

2.1.4 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)

2.1.5 Deconstruct all tunnels. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 30 linear metres)

2.1.6 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)

2.1.7 Relay the previously removed temporary mesh as permanent from toe to toe plus 1m deep on each side, inserted into narrow trench as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

2.1.8 Secure meshing with ground pins

2.2.9 Re-proof any gaps in meshing left from badger gate removal as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (minimum 150mm overlap on all sides). Mesh supplied by *Client.*

2.1.10 Re-Lay and compact excavated topsoil 150mm deep

2.1.11 Trim and grade bank to match adjacent profile

2.1.12 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)

2.1.13 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)

3. SP5-03C Torksey

Background

An active badger sett is located mainly in the soak dyke and berm which has been in existence for a number of years; through natural expansion entrances are now present in the flood embankment. Piles have been inserted through the crest of the flood embankment, probably to contain the badgers, however the piles are now protruding through the crest in places and the sett/tunnels are causing the bank to slump, making maintenance unsafe. A project is required to ensure the integrity of the flood defence for the next ten years. *Works* funding is available 2022/23.

Scope

3.1 *Works* Required for 2 Outlier Setts Exclusion: Mesh Covering of Existing Sett in Embankment

3.1.1 Secure meshing with ground pins (both setts)

3.1.2 Cut mesh in readiness for badger gate installation. All badger sett entrances must be left clear and accessible to provide unhindered access to badgers

3.1.3 Supply one-way badger gates as per Specification for Installation of Badger Gates v1 (Appendix 3.3)

3.1.4 Install one-way badger gates as per Specification for Installation of Badger Gates v1 (Appendix 3.3) (once exclusion licence received)

3.1.5 Stop works whilst the *Client's* badger ecologist monitors the sett for minimum of 21 days to confirm the exclusion has been thorough and complete.

3.1.6 If required by the *Client's* badger ecologist, attend site to fix or alter the exclusion meshing.

3.1.7 Localised deconstruction of tunnels. All tunnels must be collapsed and chased back to their ends and bank reinstated (estimated length of tunnel section 5 linear metres)

3.2 *Works* Required to Live-Dig Main Badger Sett 1 and Rebuild Flood bank

3.2.1 Supply 3.6m piles to be installed as underground barrier

3.2.2 Dig trench to install piles and identify tunnel systems extending underneath floodbank

3.2.3 Remove piles from centre of the embankment (estimated)

3.2.4 Install piles and back fill

3.2.5 Deconstruct all badger tunnels within/under flood bank. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 70 linear metres)

3.2.6 Reconstruct bank in compacted layers, using existing materials (Note that volume measurement is based on half section of the embankment as it is thought that the badgers have not breached the piles)

3.3 *Works* Required Following Rebuilding of Flood bank

3.3.1 Prep area for permanent meshing by stripping topsoil off to a depth of 150mm and store for re-use (135 linear meters)

3.3.2 Supply HT weld mesh, 50mm x 50mm aperture, 12 gauge

3.3.3 Lay permanent mesh in full wrap design, ensuring dug in 1.15m deep on each side, as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

3.3.4 Secure meshing with ground pins

3.3.5 Re-Lay and compact excavated topsoil 150mm deep

3.3.6 Trim and grade bank to match adjacent profile

3.3.7 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)

3.3.8 Maintenance of repaired embankment to ensure good grass coverage (12 months)

4. SP22-03 Tetney Bank and Headwall

Background

Mother Drain is included in the Louth Coastal CFMP and it is in a policy 4 area, where policy 4 is to: Take further action to sustain the current level of flood risk into the future (responding to the potential increases in risk from urban development, land use change and climate change).

Mother Drain flows in an easterly direction between raised earth flood embankments into the Louth Canal at Tetney Lock. Upstream of Tetney Lock a section of the right-hand flood embankment, outfall asset number 304672, has been identified as having a defect resulting in becoming BRC (below required condition), see below:

Asset 304672 - 08/03/21 Asset Inspection Comments: Flap in visually good condition, 3/4 submerged through clear water, headwall is leaning very significantly towards channel. Flap cannot close fully with the amount of lean on wall.

Work is required to build an inlet/outfall to allow plant to safely pass over.

Scope

4.1 Design and build an outfall into Mother Drain ensuring the crest is at the required height and plant can safely pass over. Replacement will be like for like with crest level to match adjacent embankment. Pipe to be set at same level as existing and have a minimum diameter as existing. Pricing should be for a minimum 600mm Dia pipe through a 3m high headwall and one way valve with access to the valve for maintenance. Embankment over culvert to be 1.5m higher than the headwall top which would require an additional 12m^3 import. New headwall can be sited up to 1.5m downstream of current headwall.

5. SP22-02C Louth Canal

Scope

5.1 *Works* Required for Exclusion: Mesh Covering of Existing Sett in Embankment

5.1.1 Undertake 50 linear metre temporary meshing of riverbank. (Wrap length is to be increased by 2m to allow for underground barrier, as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2), when installed as permanent). Mesh to be High Tensile (HT) welded mesh, 50mm x 50mm aperture (12 gauge)

5.1.2 Secure meshing with ground pins

5.1.3 Cut mesh in readiness for badger gate installation. All badger sett entrances must be left clear and accessible to provide unhindered access to badgers

5.1.4 Supply one-way badger gates as per Specification for Installation of Badger Gates v1 (Appendix 3.3)

5.1.5 Supply 1x 6m x 300mm drainage pipe to use for badger entrances as per Specification for Installation of Badger Gates v1 (Appendix 3.3)

5.1.6 Install one-way badger gates as per Specification for Installation of Badger Gates v1 (Appendix 3.3) (once exclusion licence received by the *Client's* badger ecologist)

5.1.7 Stop works whilst the *Client's* badger ecologist monitors the sett for minimum of 21 days to confirm the exclusion has been thorough and complete.

5.1.8 If required by the *Client's* badger ecologist, attend site to fix or alter the exclusion meshing.

5.2 *Works* Required Following Successful Monitoring: Rebuilding of Flood bank

5.2.1 Remove and set aside one-way badger gates for re-use

5.2.2 Remove temporary mesh and store for re-use as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

5.2.3 Remove ground pins and store for re-use

5.2.4 Prep area for permanent meshing (embankment and berm outside of newly constructed piled area) by stripping topsoil to a depth of 150mm and store for re-use (50 linear meters)

5.2.5 Deconstruct all tunnels within the embankment. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 20 linear metres)

5.2.6 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)

5.2.7 Relay the previously removed temporary mesh as permanent as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

5.2.8 Secure meshing with ground pins

5.2.9 Re-proof any gaps in meshing left from badger gate removal as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (minimum 150mm overlap on all sides). Mesh supplied by the *Client.*

5.2.10 Re-Lay and compact excavated topsoil 150mm deep

5.2.11 Trim and grade bank to match adjacent profile

5.3 Install a further 200 metres of permanent mesh

5.3.1 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)

5.3.2 Lay mesh as permanent to a full wrap design as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

5.3.3 Secure meshing with ground pins

5.3.4 Re-Lay and compact excavated topsoil 150mm deep

5.3.5 Trim and grade bank to match adjacent profile

5.3.6 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)

5.3.7 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)

6. SP24-04C Louth Canal

Background

Works to construct an artificial badger sett and exclude badgers from existing sett (including monitoring) will have been carried out prior to the *works* below and do not need to be priced.

Scope

6.1 *Works* Required Following Successful Monitoring: Rebuilding of Flood bank

6.1.1 Strip topsoil to a depth of 150mm and store for re-use (30 linear meters)

6.1.2 Deconstruct all tunnels. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 20 linear metres)

6.1.3 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)

6.1.4 Re-Lay and compact excavated topsoil 150mm deep

6.1.5 Trim and grade bank to match adjacent profile

6.1.6 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)

6.1.7 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)

7. SP22-09C West of Lordships

Background

Works to construct an artificial badger sett (including monitoring) will have been carried out prior to the *works* below and do not need to be priced.

Scope

7.1 Install 100 metres of permanent mesh adjacent to Artificial Sett (Under supervision of ECoW)

7.1.1 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)

7.1.2 Lay mesh as permanent to a full wrap design

7.1.3 Secure meshing with ground pins

7.1.4 Re-Lay and compact excavated topsoil 150mm deep

7.1.5 Trim and grade bank to match adjacent profile

7.2 *Works* Required for Exclusion

7.2.1 Undertake 50 linear metre temporary meshing of riverbank at each of the two setts to be excluded as per scope and in line with Specifications. (Wrap length is to be increased by 2m to allow for underground barrier, as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2), when installed as permanent). Mesh to be HT welded mesh, 50mm x 50mm aperture (12 gauge)

7.2.2 Secure meshing with ground pins

7.2.3 Cut mesh in readiness for badger gate installation. All badger sett entrances must be left clear and accessible to provide unhindered access to badgers

7.2.4 Supply one-way badger gates as per Specification for Installation of Badger Gates v1 (Appendix 3.3)

7.2.5 Supply 1x 6m x 300mm drainage pipe to use for badger entrances as per Specification for Installation of Badger Gates v1 (Appendix 3.3)

7.2.6 Install one-way badger gates as per Specification for Installation of Badger Gates v1 (Appendix 3.3) (once exclusion licence received)

7.2.7 Stop works whilst the *Client's* badger ecologist monitors the sett for minimum of 21 days to confirm the exclusion has been thorough and complete.

7.2.8 If required by the *Client's* badger ecologist, attend site to fix or alter the exclusion meshing.

7.3 *Works* Required Following Successful Monitoring: Rebuilding of Flood bank

7.3.1 Remove and set aside one-way badger gates for re-use

7.3.2 Remove temporary mesh and store for re-use

7.3.3 Remove ground pins and store for re-use

7.3.4 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (2 x 50 linear meters)

7.3.5 Remove sheet piling located between embankment and watercourse and dispose of appropriately. 20lm length unknown.

7.3.6 Deconstruct all tunnels within the embankment. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 2 x 20 linear metres)

7.3.7 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)

7.3.8 Relay the previously removed temporary mesh as permanent as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

7.3.9 Secure meshing with ground pins

7.3.10 Re-proof any gaps in meshing left from badger gate removal as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (minimum 150mm overlap on all sides) Mesh supplied by the *Client*

7.3.11 Re-Lay and compact excavated topsoil 150mm deep

7.3.12 Trim and grade bank to match adjacent profile

7.4 Install a further 100 metres of permanent mesh

7.4.1 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)

7.4.2 Lay mesh as permanent to a full wrap design

7.4.3 Secure meshing with ground pins

7.4.4 Re-Lay and compact excavated topsoil 150mm deep

7.4.5 Trim and grade bank to match adjacent profile

7.4.6 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage

7.4.7 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)

7.4.8 Mow the vegetation on the embankment on completion of the rebuilding *works*. Approx. length 2km.

8. North Somercotes

Background

Works to construct an artificial badger sett (including monitoring) will have been carried out prior to the *works* below and do not need to be priced.

Scope

8.1 *Works* Required for Exclusion

8.1.1 Cut vegetation on the embankment to accommodate the installation of exclusion mesh.

8.1.2 Undertake 75 linear metre temporary meshing of riverbank. (Wrap length is to be increased by 2m to allow for underground barrier, as per Specification, when installed as permanent). Mesh to be HT welded mesh, 50mm x 50mm aperture (12 gauge)

8.1.3 Secure meshing with ground pins

8.1.4 Cut mesh in readiness for badger gate installation. All badger sett entrances must be left clear and accessible to provide unhindered access to badgers

8.1.5 Supply one-way badger gates as per Specification

8.1.6 Supply 1x 6m x 300mm drainage pipe to use for badger entrances as per Specification

8.1.7 Install one-way badger gates as per Specification (once exclusion licence received)

8.1.8 Stop works whilst the *Client's* badger ecologist monitors the sett for minimum of 21 days to confirm the exclusion has been thorough and complete.

8.1.9 If required by the *Client's* badger ecologist, attend site to fix or alter the exclusion meshing.

8.2 *Works* Required Following Successful Monitoring: Rebuilding of Flood bank

8.2.1 Remove and set aside one-way badger gates for re-use

8.2.2 Remove temporary mesh and store for re-use as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

8.2.3 Remove ground pins and store for re-use

8.2.4 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use

8.2.5 Deconstruct all tunnels within the embankment. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 30 linear metres

8.2.6 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)

8.2.7 Relay the previously removed temporary mesh as permanent as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

8.2.8 Secure meshing with ground pins

8.2.9 Re-proof any gaps in meshing left from badger gate removal as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (minimum 150mm overlap on all sides) Mesh supplied by the *Client.*

8.2.10 Re-Lay and compact excavated topsoil 150mm deep

8.2.11 Trim and grade bank to match adjacent profile

8.3 Install a further 100 metres of permanent mesh

8.3.1 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)

8.3.2 Lay mesh as permanent to a full wrap design as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

8.3.3 Secure meshing with ground pins

8.3.4 Re-Lay and compact excavated topsoil 150mm deep

8.3.5 Trim and grade bank to match adjacent profile

8.3.6 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)

8.3.7 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)

9. SP7-03C Stapleford

Background

There is a large badger sett near Stapleford Village (upstream of Lincoln). The poor condition of the embankment increases flood risk in Stapleford. In places the crest level is artificially high and may be used as a source of fill material for remediation *works* if required (assume no imported material required).

The site is accessed by the track east of the village which leads to the left bank of the Witham. Previous inspections have also identified minor badger excavations approx. 200m north and south of the main defect location

Works to construct an artificial badger sett and exclude badgers from existing sett (including monitoring) will have been carried out prior to the *works* below and do not need to be priced.

Scope

9.1 *Works* Required Following Successful Monitoring: Rebuilding of Flood bank

9.1.1 Remove and set aside one-way badger gates for re-use

9.1.2 Remove temporary mesh and store for re-use as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

9.1.3 Remove ground pins and store for re-use

9.1.4 Prep area for permanent meshing by stripping topsoil to a depth of 150mm and store for re-use (100 linear meters)

9.1.5 Deconstruct all tunnels. All tunnels must be collapsed and chased back to their ends (estimated length of tunnel section 30 linear metres)

9.1.6 Reconstruct bank in compacted layers, using existing materials to a height of 150mm lower than the profile of the existing adjacent embankments. Excess topsoil to be stored for re-use. (Note that the estimated linear measurement is for the full cross section of the embankment)

9.1.7 Relay the previously removed temporary mesh as permanent from toe to toe plus 1m deep on each side, inserted into narrow trench as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2)

9.1.8 Secure meshing with ground pins

9.1.9 Re-proof any gaps in meshing left from badger gate removal as per Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design (Appendix 3.2) (minimum 150mm overlap on all sides) Mesh supplied by the *Client.*

9.1.10 Re-Lay and compact excavated topsoil 150mm deep

9.1.11 Trim and grade bank to match adjacent profile

9.1.12 Grass seed complete area of *works* with the *Client's* recommended mix for embankment usage (Appendix 3.5)

9.1.13 Maintenance of repaired embankment to ensure good grass coverage (until 31 March 2024)

10. Timberland Bank Seepage

Background

During high water in the Delph the embankments at this location are seen to leak through animal burrows. There is visible animal burrowing (mainly rabbits) along this section.

A project is required to ensure the integrity of the flood defence for the next ten years. *Works* to be carried out and funding available in 2022/23.

Scope

10.1 Remove all trees/bushes along with root balls, for 200 metres upstream of the confluence. Root ball holes to be filled with a clay material and compacted with the excavator bucket. Material specification within the SID document. Tree roots to be carted off site and correctly disposed, and brash to be chipped and spread on the rear berm

10.2 For a length of 200m starting 30m from the access gate, strip the topsoil from the crest and landward side of the embankment and set aside for reuse.

10.3 Dig to a depth of 2m below topsoil level over a total length of 200m, 600mm width and replace dug embankment material with imported clay. See SID for specification.

10.4 Topsoil should be placed on the embankment as soon as practical after final profiling to prevent the clay drying out. It may be necessary to harrow the banks prior to topsoiling.

10.5 Humanely despatch any rabbits residing in the embankment and collapse tunnel systems.

10.6 Seed all worked areas of embankment

10.7 Maintain re-seeded area to prevent weed growth and establish healthy grass swath up to March 2024 after completion of construction *works*.

2. Drawings

List the drawings that apply to the contract.

Drawing Number	Revision	Title

3. Specifications

List the Specifications which apply to the contract.

Title	Date or Revision	Tick if publicly available
Latest Ciria Guidance: Culvert, screen and outfall manual - New CIRIA guidance	12/2019	yes
Civil Engineering Specification for the Water Industry, 7th Edition	03/2011	yes
412_13_SD01 Minimum Tech Standards	01/2008	yes
Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design	Rev1	
Specification for Installation of Badger Gates	Rev1	
Permanent Meshing Installation Detail Drawing	Rev1	

4. Constraints on how the *Contractor* Provides the *Works*

State any constraints on the sequence and timing of work and on the methods and conduct of work including the requirements for any work by the *Client*.

4.1. Operations and access;

The *Contractor* shall obtain all consents, permits and approvals required for the *works* to be undertaken.

1. All *works* shall be planned and carried out in agreement with the *Client's* operations team and in accordance with any constraints due to existing access required to operational assets. No routine visits have been identified for any of the sites within this contract.

2. The *Contractor* shall not commence any work on the site until the *Client*, or their representative, has accepted the Construction Phase Plan and RAMS ahead of each project in this contract. Acceptance will be by way of a written communication from the *Client* confirming the *Contractor* may take possession of the site from the agreed starting date.

3. The *Contractor* is responsible for the security of the *works* at the site and is the interface between any visitors and the site operation

4. The *Contractor* shall follow the relevant pollution prevention guidance (e.g., CIRIA Guidance: Control of water pollution from construction sites. Guidance for Consultants and Contractors (C532D) (Master-Williams, 2001)

5. Statutory constraints imposed to meet requirements of others (e.g., Waterways/Navigation, Nat England, etc.). See but not limited to: Programme Permits Licences and Consents Tracker Rev-Tender.

6. The *Contractor* shall not let any person enter confined spaces unauthorised.

7. The *Contractor* shall not dispose any hazardous waste including silts on site.

8. The site shall only be used for the *works* intended.

9. The rebuilding of each embankment following the exclusion period should commence without delay as soon as given the go ahead by the *Client's* badger ecologist. Any delay in this section of the works may cause additional cost to the *Client* which shall be re-charged to the *Contractor.*

4.2. Environment and Heritage;

1. The *Contractor* shall consult with the *Client's* National Environment Assessment Service (NEAS) team on all activities to be undertaken and undertake *works* in accordance with their recommendations. Initial NEAS screening is available in the document Programme Permits Licences and Consents Tracker Rev-Tender.
2. The *Contractor* shall liaise with the *Client's* Badger Ecologist before and during the *works*.
3. The *Contractor's* ecologist shall survey the area for any potential hazard prior to starting on site and a competent person should check the working area each day before work commences to identify any new ecological activity. Due to the timing of the *works* it is assumed that pricing will not need to consider nesting bird issues.
4. The *Contractor* must start collapsing tunnels immediately after monitoring period. If there is any delay, the 21-day monitoring period is to be extended until collapsing can take place.
5. All tunnels must be collapsed by 31st November following an exclusion under licence.
6. The *Contractor* shall comply with all relevant legislation regarding the protection of biodiversity.
7. The *Contractor* shall notify the relevant enforcing authority and take steps to prevent the damage if *Contractor* activities pose an imminent threat to the environment and habitat. If the *Contractor's* activities cause actual environmental damage, the *Contractor* must take remedial action to repair the damage.
8. All environmental incidents and near misses shall be notified to the *Client.*
9. For detailed information about each scheme, please refer to the relevant **SID** in the **Appendices**.

4.3. Health and Safety;

Maintaining Health and safety at work is an absolute priority for the *Client*. The *Client* expects all *works* to be undertaken on-site in line with their Safety, Health, Environment and Wellbeing Code of Practice (SHEW CoP).

The *Contractor* shall;

1. promote and adopt safe working practices for their own activities and Subcontractors working for them and shall, in consultation with the *Client*, deliver the *works* with due regard for health and safety in their performance with regard to the public and anyone else concerned.

2. demonstrate that they have followed the principles of hazard identification, elimination and management in their *works*.

3. report to the *Client* any near miss, hazard or accident that happens during the delivery of the *works*, in addition to any statutory body such as the HSE.

4. report to the *Client* any brilliant safety behaviours highlighted during the delivery of the services.

4.4 Working times

The *Contractor* will be permitted to work between 7.30am and 6.00pm on weekdays (Monday to Friday)

5. Requirements for the programme

State whether a programme is required and, if it is, state what form it is to be in, what information is to be shown on it, when it is to be submitted and when it is to be updated.

State what the use of the *works* is intended to be at their Completion as defined in clause 11.2(1).

The *Contractor* submits their programme with the *Contractor's* Offer for acceptance. The *Contractor* shows on each programme which they submit for acceptance (in form of Gantt chart showing the critical path, proposed order and timing to undertake the *works* and proposed plant and labour resources) the following:

(a) All dates for gaining all permissions, approvals, consents and permits needed to deliver the project

(b) Period required for mobilisation/ planning & post contract award

(c) Starting date

(d) Each of the activities listed within the Price List

(e) All key activities required to deliver the services shall be identified on the Programme

(f) Any key third party interfaces: lead in periods for materials and subcontractors; time required to obtain consents or permits; stated constraints; *Contractor's* risks.

(g) Completion Date and handover dates.

(h) Submission date of the H&S File

The programme shall be updated and submitted to the *Client* for acceptance on a monthly basis to support each payment application to confirm *works* complete to that assessment date. Any early warning or compensation event that impacts on the Completion Date shall be supported by an updated programme.

6. Services and other things provided by the *Client*

Describe what the *Client* will provide, such as services (including water and electricity) and "free issue" Plant and Materials and equipment.

Item	**Date by which it will be provided**

Previous Surveys & Drawings on SharePoint or Similar online file storage and sharing platform	
Initial Induction to be arranged to enable access to the *Client's* Sites	
Statutory Notices of Entry for all private land within the site (if necessary) Landowner contact information however, it is the *Contractor's* responsibility to contact landowners and arrange letter drops to residents where required	At least seven days before the possession dates

Site Information

For further Site Information about each scheme, please refer to the relevant SID in the Appendices

Proposed subcontractors

	Name and address of	Nature and extent of work
1.	[redacted]	
2.	Form of Contract:	
3.	Form of Contract:	

4.	Form of Contract:	

Appendices

1. SIDS

1.1 - River Till left bank at Broxholme
1.2 - SP31-05R Greyfleet Drain Grimoldby
1.3 - SP5-03C Torksey
1.4 - SP22-03 Tetney Bank and Headwall
1.5 - SP7-03C Stapleford
1.6 - Timberland Bank Seepage

2. Location Plans

2.1 - River Till Left Bank at Broxholme
2.2 - Greyfleet Drain Grimoldby
2.3 - Torksey
2.4 - Tetney Bank and Headwall
2.5 - Louth Canal
2.6 - West of Lordships
2.7 - North Somercotes
2.8 - Stapleford
2.9 - Timberland Bank Seepage (site access and location)
2.10 - Timberland Bank Seepage (cross-section)

3. Specifications

3.1 - Latest Ciria Guidance: Culvert, screen and outfall manual - New CIRIA guidance
3.2 - Specification for Laying Temporary and Permanent Meshing Full and Half Wrap Design
3.3 - Specification for Installation of Badger Gates
3.4 - Permanent Meshing Installation Detail Drawing
3.5 – Recommended Grass Seed Mix

4. Other

4.1 - Programme Permits Licences and Consents Tracker