NEC4 Engineering and Construction

Short Contract

A contract between	The Environment Agency
And	
For	Delivery of Lot 1 Ely and King's Lynn combined package of works
	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 **Environment Agency** Address for communications Address for electronic communications The works are Ely and King's Lynn combined package of Works. The site is **Cut-off Channel Access Improvements** Project Manager: **Cut-Off Channel Culverts** Project Manager: **Little Ouse Leak Repairs** Project Manager: **Eastgate Weir De-silting & Penstock Maintenance** Project Manager: Sea Bank East Embankment Repairs Project Manager: **Beach Recycling Scheme** Project Manager: Other un-scoped projects to be confirmed. The starting date is To be determined by the successful Contractor's programme, but no earlier than 01/06/2020. To be confirmed at award stage to reflect the agreed programme. The completion date is See separate project information for individual project completion dates. Un-scoped project completion dates to be agreed, on addition to the programme. Package completion is 31st March 2023 or 24 months from date of contract award.

2	weeks
2	weeks
	WOOKO
52	weeks after Completion
4	weeks
the last working day	of each month
nil	%
struction and Regeneration A	Act (1996) does apply?
1	the last working day

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 % per complete week of delay. Insert a rate only if a rate less than 0.5% per week of delay has been agreed. For any one event, the liability of the £100k Contractor to the Client for loss of or damage to the Client's property is limited The Client provides this insurance None **Insurance Table Event** Cover provided until Cover The Client's certificate of Loss of or damage to the works The replacement cost Completion has been issued The defects Certificate Loss of or damage to Equipment, Plant and Materials The replacement cost The Contractor's liability for loss of or damage to property Minimum £5,000,000 in has been issued (except the works, Plant and Materials and Equipment) respect of every claim without limit to the and for bodily injury to or death of a person (not an

number of claims

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	yee of the <i>Contractor</i>) arising from or in connection							
	ne Contractor's Providing the Works	The second second second						
	ty for death of or bodily injury to employees of the	The amount required by						
	actor arising out of and in the course of their yment in connection with this contract	the applicable law						
	e of the <i>Contractor</i> to use the skill and care normally	Minimum £100,000 in	12 years following					
	by professionals providing works similar to the works	respect of every claim without limit to the number of claims	Completion of the whole of the works or earlier termination					
The A	djudicator nominating body is The Institution	n of Civil Engineers						
ine tri	ibunal is litigation in the	e courts						
	onditions of contract are the NEC4 Engineering and C	Construction Short Contract	June 2017 and the					
	ng additional conditions							
	enter details here if additional conditions are requ	uired.						
Z1.0	Sub-contracting	d authorities (1 to 0"	(for an analysis A					
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	for not accepting the <i>subcontractor</i> is that their appropriately works. The <i>Contractor</i> does not appoint a propose							
Z1.2	Payment to <i>subcontractors</i> and suppliers will be no							
Z2.0	Environment Agency as a regulatory authority	o more than 50 days from to	eccipi di ilivolce.					
Z2.1	The Environment Agency's position as a regulatory	authority and as <i>Client</i> und	er the contract is separate					
	and distinct. Actions taken in one capacity are dee							
Z2.2	Where statutory consents must be obtained from the							
	authority, the <i>Contractor</i> is responsible for obtaining these and paying fees. The <i>Client's</i> acceptance of a tender and the <i>Client's</i> instruction or variation of the <i>works</i> does not constitute statutory approval or							
	consent.							
Z2.3	An action by the Environment Agency as regulator compensation event.	y authority is not in its capa	acity as <i>Client</i> and is not a					
Z3.0	Confidentiality & Publicity							
Z3.1	The <i>Contractor</i> may publicise the <i>works</i> only with t	he Client's written agreeme	ent					
Z4.0	Correctness of Site Information							
Z4.1	Site Information about the ground, subsoil, ducts, of by the Client but is not warranted correct. The Conformation they rely on for the purpose of Providing	Contractor checks the corr						
Z5.0	The Contracts (Rights of Third Parties) Act 1999							
Z5.1	For the purposes of the Contracts (Rights of Third purports to confer on a third party any benefit or ar							
Z6.0	Design							
Z6.1	Where design is undertaken, it is the obligation of normally used by professionals providing similar definitions.		the use of skill and care					
Z6.2	The Contractor designs the parts of the works which	ch the Scope states they ar						
Z6.3	The Contractor submits the particulars of their design A reason for not accepting the Contractor's design applicable law.							
	The Contractor does not proceed with the relevant	work until the Client has a	ccepted this design					
Z6.4	The Contractor may submit their design for account 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							
	War, civil war, rebellion revolution, insurrection, resolution,							
	Strikes, riots and civil commotion not confined to Inning radiation or radiacetive contemporation for the confined to							
	 Ionising radiation or radioactive contamination f combustion of nuclear fuel 	rom nuclear fuel of nuclear	waste resulting from the					
	 Radioactive, toxic, explosive or other hazardous 	properties of an explosive	nuclear device					
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	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 <i>Completion</i> 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 Contract Data, Scope and Site Information
	particular to an individual project is contained within its Site Specific Pack

Contract Data The Contractor's Contract Data Breheny Civil Engineering Ltd Name Address for communications Address for electronic communications The fee percentage is The people rates are As per the FCRM Framework category of person unit rate General Foreman hour Project Manager hour Quantity Surveyor hour The published list of Equipment is Client Framework Rates 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	
	Enter the total of the Prices from the Price List.
Signed on behalf of the Contractor	
Name	
Position	
Signature	
Date	27 May 2020
The Client accepts the Contractor's	Offer to Provide the Works
Signed on behalf of the Client	
Name	
Position	
Signature	
_	
Date	23/06/2020

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.

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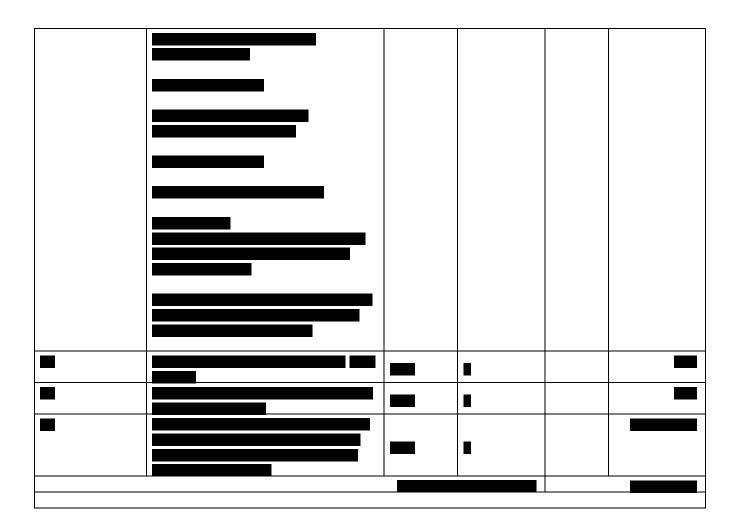
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Little Ouse Leak Repairs					
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Eastgate Weir D	e-silting & Penstock Maintenance				
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Beach Recycling	Scheme	T	Γ	Г	Γ
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The method and rules used to compile the Price List are

Civil Engineering Standard Method of Measurement 4th edition (CESMM4) as per the Framework Price Workbook.

Scope

Scoped works comprising 50% of package value as follows:

Cut-off Channel access improvements (System 23 and 25)

As per description of works and constraints below.

Note last *completion* date (year 1) of: **31st March 2021.** Note last *completion* date (year 2) of: **31st March 2022.**

Cut-Off Channel Culverts

As per description of works and constraints below.

Note last *completion* date (year 1) of: 31st March 2021. Note last *completion* date (year 2) of: 31st March 2022.

Little Ouse Leak Repairs

As per description of works and constraints below.

Note last *completion* date (year 1) of: 31st March 2021. Note last *completion* date (year 2) of: 31st March 2022.

Eastgate Weir De-Silting & Penstock Maintenance

As per description of works and constraints below.

Note last completion date of: 31st March 2021.

Sea Bank East Embankment Repairs

As per description of works and constraints below.

Note last *completion* date (year 1) of: **31st March 2021.** Note last *completion* date (year 2) of: **31st March 2022.**

Beach Recycling Scheme

As per description of works and constraints below.

Note last *completion* date (year 1) of: 15th March 2021. Note last *completion* date (year 2) of: 15th March 2022.

Contractor to provide monthly programme updates, cost updates and to attend monthly package progress meetings.

Contractor to allow sufficient notice of intent to demobilise so a joint onsite snagging meeting can be carried out once all works are complete and prior to demobilisation of site.

Contractor to provide 'As Built' drawings, construction phase and completion photos as well as details of products used for inclusion in H&S File; within 8 weeks of completion on the ground.

Un-scoped works comprising 50% of package value as follows:

Additional un-scoped projects to follow subject to *contractor* performance, it is anticipated that a minimum of 4 un-scoped projects will be added for *completion* by 31st March 2021, further un-scoped projects may follow to the end of contract. The *Contractor* will be required to work in parallel on multiple *sites* to enable the delivery of scoped and un-scoped elements of the package. Constraints as detailed below and in any follow on information.

1. Description of the works

Cut-off Channel access improvements (system 23 and 25)

To create safe working access to the channel for future maintenance operations and to improve integrity of the existing flood embankments the *Contractor* is required to complete the following:-

<u>Site 1 - Upstream of oil pipeline to Tollgate Weir, left bank - Channel side, berm and embankment clearance / reprofiling.</u>

- Undertake grass cut of working length of up to 10m width where access allows to include channel side, berm and face in.
- Shape locally won material to create vehicular access ramp from berm to crest at upstream end of length 1 as shown on map 3 (11 of 12)
- Reinstate bank and berm as show in DRG A1 to include driving 25 linear metre wall of 3m long PAL3040 piles supplied by the *contractor* into the berm near the toe of the bank, reshaping edges to provide safe and level approaches to/access through slipped area, re-profiling damaged embankment crest to allow vehicular access from berm to crest either side of slip. This will require *completion* in order to gain access to the downstream extent of *works* area. See map 3 (11 of 12)
- Repair 2no small slips in channel-side using locally won material, benched in and compacted in layers to match adjacent profile. See map 3 (11 of 12) for locations.
- Remove trees to ground level on the channel-side slope, berm and embankment. Face up any branches overhanging embankment landward slope. Density of trees varies and has been separated into lengths as indicated in attached maps 3 (10 & 11 of 12) and above Price List.
- Stumps to be grubbed out, ground or cut flush with existing ground level and treated to prevent regrowth.
- Tree branches and brash under 150mm diameter to be chipped and spread on site in areas
 determined by the Client (Option A) or removed from site to a suitable disposal facility (Option B). The
 chosen option (or combination of options) will be instructed by the Client following consultations with
 the Fisheries, Biodiversity and Geomorphology FBG and landowners and budget
 limitations/Contractor's offer.
- Options A & B detailed in the price list are specified to reduce the amount of wood chip either left on site or transported away whilst achieving some environmental benefits by stacking
- Remaining wood (150mm+) to be cut into lengths no longer than 2.5m and neatly stacked within 500m or removed from site to a suitable disposal facility. The chosen option (or combination of options) will be instructed by the Client following consultations with FBG and landowners and budget limitations/Contractor's offer.
- Undertake localised intermittent embankment and berm re-profiling to provide a flat berm of width no narrower than 6m, 4m wide crest where achievable and sloped faces to match existing gradients as per Drg 002.
- Any damage in work areas or access routes to be repaired and reseeded.
- Reseed all disturbed areas with grass seed supplied by the Client.

<u>Site 2 -</u> Upstream of oil pipeline to Tollgate Weir, right bank – Channel side, berm and embankment clearance / re-profiling.

- Undertake grass cut of working length of up to 10m width where berm width allows (otherwise cut reduced width) to include channel side, berm and face in.
- Shape locally won material to create vehicular access ramp from berm to crest at location agreed with the *Client* at the upstream extent of length 1 as shown on map 3 (11 of 12).
- Remove trees to ground level on the channel-side slope, berm and embankment. Face up any branches overhanging embankment landward slope. Density of trees varies and has been separated into lengths as indicated in attached maps 3 (10 & 11 of 12) and above price list. Note: this is to include a large tree that is against the upstream headwall of culvert 41. Given the low density and small size of tree, length 1 is to be done using chainsaws/hand tools to avoid unnecessary damage to the embankment by plant and machinery movements.
- Stumps to be grubbed out, ground or cut flush with existing ground level and treated to prevent regrowth.
- Tree branches and brash under 150mm diameter to be chipped and spread on site in areas
 determined by the Client or removed from site to a suitable disposal facility. The chosen option (or
 combination of options) will be instructed by the Client following consultations with the Fisheries,
 Biodiversity and Geomorphology team and landowners and budget limitations/Contractor's offer.
- Remaining wood (150mm+) to be cut into lengths no longer than 2.5m and neatly stacked within 500m
 or removed from site to a suitable disposal facility. The chosen option (or combination of options) will

- be instructed by the *Client* following consultations with the Fisheries, Biodiversity and Geomorphology team and landowners and budget limitations/*Contractor's* offer.
- Undertake localised intermittent embankment and berm re-profiling to provide a flat berm of width no narrower than 6m, 4m wide crest where achievable and sloped faces to match existing gradients as per Drg 002.
- Any damage in work areas or access routes to be repaired and reseeded.
- Reseed all disturbed areas with grass seed supplied by the Client.

<u>Site 3 - Thornham Road Bridge to Wissey siphons left bank - Channel side and berm clearance / reprofiling.</u>

- Within the working length is a high pressure gas main. The Contractor is to liaise with Cadent Gas to
 obtain all necessary permission/permits and observe necessary measures to cross pipeline.
- If required and instructed by the *Client*, undertake grass cut of working length of up to 10m width where access allows to include channel side, berm and face in.
- Remove trees to ground level on the channel-side slope, berm and first 2m of embankment/spoil heap.
 Face up any branches overhanging the berm. Density of trees varies and has been separated into lengths as indicated in attached maps 3 (1 of 12) and above Price List.
- Stumps to be grubbed out, ground or cut flush with existing ground level and treated to prevent regrowth.
- All arising to be taken away off *site* to a suitable disposal facility.
- Undertake localised intermittent embankment and berm re-profiling to provide a flat berm of width no narrower than 6m and sloped faces to match existing gradients as per Drg 001.
- Any damage in work areas or access routes to be repaired and reseeded.
- Reseed all disturbed areas with grass seed supplied by the Client.

Year 1 weed rake

- Hockwold siphons
 2600m
- Oil pipeline (Eriswell)
 4400m.See Map 3.
- Central channel to be weed raked to bed leaving 10% fringe either side of channel. Arising's to be placed on embankments outer face where possible. To be priced on a rate per kilometre stating the expected output length per week. This length will be confirmed subject to the *Contractors* offer.

Year 2 weed rake

- White Fen Bridge to Oil Pipeline (Eriswell) total
 7900m
- Central channel to be weed raked to bed leaving 10% fringe either side of channel. Arising's to be placed on embankments outer face where possible. To be priced on a rate per kilometre stating the expected output length per week. This length will be confirmed subject to the *Contractors* offer.

Cut-Off Channel culverts

To provide H&S measures and maintenance of culverts along the Cut-Off Channel including:

- Design, supply and installation of replacement HDPE double hinged culvert outfall flap valves as detailed in design scenario drawings DRG C1, C2 and C3
- Revetment repairs
- Installation of concrete steps, compacted type 1 hardstanding platforms with 6mm steel edging
- Supply and installation of Kee-Klamp galvanised tubular railing
- Silt removal / encrustation removal and root cutting
- Minor concrete repairs to structures

Client review and acceptance of design is required prior to any work commencing.

The works are to provide maintenance and consistent H&S measures at each *site* according to Drawing C1, C2, or C3, dependant on the presence of existing flap valves or stop log slots at each location. Additionally, at locations of culverts 36 & 40 where the crest of the embankment is above the top of the upstream culvert headwall, the headwall has been covered by a build-up of spoil over the years. This is to be dug out to expose the top 150mm of headwall and the ground shaped to tie in with the existing embankment profile.

Refer to breakdown of Price List above for specific requirements at individual sites.

All disturbed areas and surrounding ground are to be graded into even, gentle slopes to reduce any risk of slips trips and falls.

Little Ouse leak repairs

Repairs are required to the Little Ouse embankment at Brandon Creek Moorings. Seepage has been observed during high water levels. The *Contractor* is required undertake repairs as follows:-

- The Client will mark on site with the Contractor the agreed location.
- Option A The Contractor is to supply and deliver to site 50 linear m (75No) 4m long PAL 3040 trench sheet steel piles.
- Option B The Contractor is to collect from the Environment Agency Ely depot and deliver to site 50 linear m (75No) 4m long PAL 3040 trench sheet steel piles.
- Repair of leaking embankment by installation of 4m sheet pile seepage barrier into embankment toe/berm-side face over a length of 50m as shown in
- The piling length is to be determined by the *Client* over the summer by inspecting for leaks in dry weather conditions, but will be within or directly adjacent to the indicated length.
- All areas to be made good and reseeded.

Eastgate Weir de-silting & penstock maintenance

The weir is located at Access via Ram Meadow car park Access via coach park car through barrier with no height restriction. Keys will be provide by local council.

The *Contractor* will be required to desilt the concrete channel behind Eastgate Weir and undertake maintenance or decommissioning of adjacent bypass penstock.

Where exact quantities are unknown, estimated volumes have been given in the Price List to allow consistent pricing. Final values to be agreed following required dip survey.

Works will require:

- Undertake sampling and analysis of silt to be removed; this will be required prior to commencement to determine disposal;
- Undertake dip measurements to assess volume of silt to be removed;
- Access and set up site including signage;
- Install temporary downstream silt trap;
- Install temporary dam at upstream limit of works to maintain retention level upstream;
- · Desilt concrete channel upstream of weir;
- Remove silt build up from concrete block revetment and shoal in channel downstream of weir.
- Remove all silt off site to a suitable disposal area;
- Undertaken repairs to cracks in concrete walls:
- Cut back and remove vegetation/material from concrete block revetment and channel walls and clear drainage pipes;
- Rubbish and debris to be removed from site;
- Desilt bypass penstock chamber (NOTE this is a confined space);
- Three potential options have been identified for the penstock and chamber:
 - a. Undertake repairs to penstock to ensure operability & install greasing line, if possible or;
 - b. Desilt penstock chamber and replace penstock or;

- c. Decommission penstock remove penstock, plate/seal pipework and chamber. The *Contractor* is requested to provide a price for each option. Final choice will be made by the *Client* after considering the *Contractor*'s offer and local liaison.
 - Clear site.

Sea Bank East embankment repairs

The Babingley Sea Bank comprises 1 assets (ID: 6178) for a total length of approximately 530m. The embankment stretches between grid reference and and and presents significant loss of shoulder across the whole length with localised rutting. The crest width varies significantly and can be as little as 1 metre wide and the crest level varies quite significantly across the whole length of the asset.

The Principal Contractor is required to:

- Eliminate the rutting along the embankment and return it to a good condition;
- Design and construct the re-profiling and widening (when required) of the crest to achieve a crest level of 6.8 m AOD and a 3 metre width;
- The required widening of the embankment shall be designed to be located on the seaward side and shall be optimised to ensure minimum use of imported material is required; the maximum embankment slope allowed shall be 1:2;
- The widening of the embankment shall be designed in such a way as to ensure its durability, for example by removing a suitable amount of topsoil and creating suitable foundation for the extended embankment;
- Seed the embankment using a clover-based grass seed mix to ensure grass coverage is returned to a good condition. Please note that, whilst in the 52-week *defects period*, the establishment of the grass coverage on the embankment will be subject to a check 6 months after *completion* to ensure that, by then, it has achieved a suitable level of coverage.

The design of the remedial work should aim at minimising the cost and the use of imported material whilst optimising the benefit realised. To that end the *Client* has identified 6 No cross sections along the embankment with an indicative possible solution (see attached) – this is to ensure the *Contractor* has a clear understanding of the *Client's* requirements and can suitably estimate the quantities of material required. Notwithstanding the above the *Principal Contractor* is required to independently undertake the design for the solution and satisfy themselves of its suitability to deliver the scope in accordance to the *Client's* requirements and specifications.

IMPORTANT: all design, specification and construction undertaken by the *Contractor* and/or any sub-contractors shall be compliant with the latest Civil Engineering Specification for the Water Industry (CESWI). In the absence of any meaningful specification elements in CESWI then the relevant series of the latest Highways specification shall be used.

Client review and acceptance of design is required prior to any work commencing.

IMPORTANT: Please refer to the pre-construction Information and environmental file note with regards to access and environmental constraints.

Beach recycling scheme

An average of approximately 6500 m3 of shingle/sand has been recycled annually over the last 10 years. The expectation is that the amount recycled per year will probably be broadly similar over the next year with a maximum haul distance of 7km, though this is dependent on natural coastal processes. Based on previous years' experience there is typically a need to take material from Snettisham Scalp to Heacham Dam, between Heacham North and Heacham South Beaches, especially near the boat ramp at Heacham North beach and to Hunstanton South beach as these areas usually suffer erosion.

The works comprise:

• The *site* is located from Snettisham Scalp approximately 8km along the coast to Hunstanton. Grid references (Hunstanton) – (Snettisham).

- Site boundaries of the work area are between the landward side of the shingle ridge and mean low water and the compound area to be located at Snettisham Beach Car Park
- The excavation and stockpiling (at a safe angle of repose) of naturally deposited sand and shingle material which accumulates over the course of the year at the spit at Snettisham Scalp
- Excavated sand and shingle is then loaded by excavator into appropriate plant and transported along the beach between Snettisham Scalp and Hunstanton. Material is then tipped in areas of depletion and profiled using bulldozers to maintain design width crest and height of the shingle ridge sea defence and a 30 degree upper beach slope. *Client* will advise of exact locations prior and during the *works*
- Repairs to Hard Defences as and when required. Design to be provided by consultant and will be dealt with as a Compensation Event should this arise these are to be priced as a Compensation Event and agreed with the *Client*
- The Contractor is required to record and report quantities excavated and deposited in each location to the Client
- Owing to the tidally dependant nature of the *works* and the unquantified amount of material to move a commencement date will be agreed with the *Client* approximately 4 weeks before the start of *works*
- Completion is required by 15th March each year due to bird breeding season there is however provision for 2 weeks for the removal of plant and works to put the compound location back in good order after this date

The location and amount of depletion is monitored by the *Client's* design consultant (Jacobs) using *Client* survey data and varies year on year dependant on coastal conditions and processes. An annual report is provided in late January/early February which determines locations that have lost material. This is then verified by a pre-commencement *site* visit with the *Client*, design consultant, *Contractor* and others in early February to take account of any variation since previous surveys. Proposed deposition *sites* and extent of material to be removed from the Scalp, as well as working external stakeholders.

On award of contract the *Client* would look to agree a commencement date based on tidal windows and amount of material to move/duration of work. Please note that the above is subject to minor change owing to the tidally dependant nature of the *works*. *Completion* is required by 15th March each year at the absolute latest due to bird breeding season. Inevitably there will be some night/low-light working around tides. Predicted astronomical tide information (high and low tide times and levels) will be provided to the *Contractor* by the *Client*. Based on previous years there is normally between 12 and 16 weekdays work in total however *works* typically commence in mid to late February dependant on tidal conditions to maximise daylight working in suitable tidal conditions.

The *Client* will appoint a member of the *Client's* operations team to liaise with the *Contractor's* to advise on the extent of excavation at Snettisham Scalp, sufficient deposition in areas of erosion and correct profile.

The works are carried out under an assent granted to the *Client* from Natural England due to the environmental designations that protect this coastline (RAMSAR *Site*, SPA, SAC, and SSSI).

The works are also subject to:

- A Marine Monitoring Organisation (MMO) exemption granted to the Client.
- The RSPB have a reserve adjacent to Snettisham Scalp and a pre-condition of the beach recycling is usually that all plant and equipment is stood down an hour either side of high tide to allow wading birds to feed/roost. This and any other RSPB requirement must be followed to maintain our good working relationship with the RSPB.

The *works* will be carried out under notices of entry served to the landowners and issued by the *Client*. The beach must remain open to the public – as such appropriate warning signage must be deployed by the *Contractors* at all main public access points to the beach. *Contractors* must remain vigilant for people/animals and stop vehicles to let them pass safely.

All plant must have working lights/amber beacons, audible reversing sirens and tipping plant must have rearfacing cameras. *Contractors* must adhere to appropriate *Site* speed limits for public safety.

Historically a compound area has been made available to the *Client* free of charge within the Snettisham Public Car Park off Beach Road, Snettisham; owned by Kenhill Estates, on the provision that the *Contractor* will bulldoze, level and compact the surface of the whole car park on *completion*. The *Client* expects the car park to be available again this year as there is nothing to indicate this won't be the case at present, however if access were withdrawn the *Client* would treat this as a CE and would look to either secure alternative compound location themselves or via the *Contractor*.

The *Contractor* is to construct a temporary ramp over the shingle ridge onto the beach from the compound in order to avoid using publically accessible ramps/accesses. The height and width of the shingle ridge and condition of the ramp must be maintained throughout the *works* and the ramp removed/ridge reinstated on *completion*. When working outside of daylight hours noise and light pollution must be minimised so as not to inconvenience residents nearby. Ramp and Compound area must be appropriately fenced.

All vehicles/plant must be recovered to the compound at the end of each shift with the exception of the excavator which can be moved to the landward side of the shingle ridge at Snettisham Scalp. No refuelling of plant is to take place seaward side of the shingle ridge. No fuel is to be stored unsecured on *site*. The *Contractor* must provide adequate secure fencing, welfare, lighting, fire extinguishers, first aid, spill kits and drip trays at the compound. Appropriate First aid, fire extinguishers and spill kits should also be available in vehicles/plant.

The *Contractor* must not drive over any areas of vegetation and should avoid soft sand between low water and mean high water. Any exposed tops of wooden groynes along the route of transit should be covered with sand to prevent damage to groynes. Utilities information will be provided. Access route to be agreed to avoid damage to Heacham Outfall. The *Contractor* is required to liaise with the *Client* to determine if other *works* are being carried out in the adjacent area or with in *Site* Boundary by others. This should be actively managed by *Contractors* to ensure there is no detrimental impact on the *works*.

The *works* will fall under The *Clients* interpretation of the CDM regulations therefore Principal Designer will be appointed and *Contractor* must allow sufficient time for review of construction phase plan. The *Contractor* is expected to undertake their responsibilities under CDM.

Works information to follow for un-scoped projects after contract award.

2. Drawings

List the drawings that apply to the contract.

Cut-off Channel access improvements (system 23 and 25)

Drawing Number Revision Title

Cut-Off Channel culverts

Drawing Number Revision Title

Cut-Off Channel culverts

Drawing Number Revision Title

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	+ -		
Little Ouse leak repai	re		
Drawing Number	Revision	Title	
Drawing Hamber	T(CVISIOII	Title	
	- 		
Eastgate Weir de-silti	ng & nenstoc	k maintenance	
Drawing Number	Revision	Title	
Drawing Italiasei	TKCVISION		
	-		
	•		
	-		
Sea Bank East embar	nkment repair	S	
	-		
Beach recycling sche	<u>me</u>		
Drawing Number	Revision	Title	
3. Specificati	ons		
List the specifications	s which apply	to the contract.	
Title		Date or Rev	vision Tick if publicly available
		18/03/2020	Yes
		7th F 41:10 to	Voc
		7 th Edition	Yes

4. Constraints on how the Contractor Provides the Works

Constraints to all projects in package both scoped and un-scoped:

The *Contractor* shall not commence any work on the *site* until the *Client*, or their representative, has accepted the Construction Phase Plan, including method statements and risk assessments 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.

The *Contractor* must submit the Construction Phase Plan to the Principal Designer 3 weeks before their intended start date on *site* in order to allow sufficient time for review and clarifications.

In order to assess the extent of work, the *Contractor* shall visit each *site* when pricing the work. The *Contractor* shall inform the *Client* of the time and date of each *site* visit before going to *site*.

The *Client* has the contractual right to access the working area as shown on the drawings. The *Contractor* shall be required to determine the suitability of the access and agree any alternative routes with the landowner should the identified routes be unsuitable. Details of the routes must be included within the method statements. Access conditions may deteriorate following wet weather and the *Contractor* should assume the worst conditions when preparing his quotation.

Compensation will be agreed and paid by the *Client* (via its appointed land agents) to affected landowners based on the *Contractor's* programme, proposed access routes and method statements. Compensation claims incurred due to the *Contractor's* failure to comply with its programme, access routes and/or method statements will be passed on to the *Contractor*.

Where necessary the *Contractor* shall include for the removal and replacement of any gates, fences or hedges or any other measures necessary such as installing temporary tracks or crossings to facilitate access. The *Contractor* shall be responsible for reinstating access tracks/routes to the same conditions as encountered on arrival to the *site*.

The *Contractor* shall take all reasonable steps to avoid damage and disruption to the surrounding land, to the designated *sites* and associated access routes. Such land may be privately owned, commercially managed for industrial, agricultural use, or part of the local social amenities etc. Any problems with access should be reported directly to the *Client*.

A key, which must be returned on *completion* of the *works*, will be provided as necessary to allow access through Agency gates.

If access to a *site* has deteriorated (e.g. due to heavy rainfall) making it difficult or impossible for the *Contractor* to access, the *Contractor* shall immediately contact the *Client*. The *Contractor* shall inform the *Client* of their intention to continue work at this *site* or submit a request to the *Client* that he may either postpone work or be permitted to start work at another *site*. If the *Contractor* decides to continue at the original *site*, this will be at his own risk.

7 working days' notice of commencement of works shall be given to the Client.

5 working days' notice must be given to the *Client* in advance of *completion* of the *works* at each location. All accidents, near misses, dangerous occurrences and environmental incidents shall be notified to the *Client*, or their representative.

The *Contractor* shall be responsible for obtaining and/or registering for any necessary waste exemptions.

The *Client* requires 24 hour / 7 days per week emergency contacts from the *Contractor* including the provision of out of hour's response if required due to theft, fire, flood and vandalism. It is expected that any emergency procedures are carried out by a competent employee of the Principal *Contractor*.

The *Contractor* shall undertake an inspection and obtain pre and post work condition photos of any access routes that are expected to be used. This shall be made available to the *Clients Project Manager* upon request.

The *Contractor* shall be responsible for obtaining the necessary Environmental Permits for Flood Risk Activities (if applicable). The *Contractor* shall ensure the permits are received a minimum of 2 weeks prior to commencement of *works*. The *Contractor* shall be responsible for all costs associated with permit applications. The *Client* has, were possible, started the application process which will need to be transferred to the *Contractor* and finalised. Please be aware the Permitting process can take 8 weeks from receipt of payment, need for permits to be discussed with *Clients Project Manager* prior to applying for permits.

Un-scoped or additional projects shall be added to the package upon acceptance of the relevant CE's and revised programmes depending on *Contractor* performance.

CEs and un-scoped projects will, in the first instance, be priced in line with the rates indicated in the *Contractor's* Framework Lot 1 Workbook submissions, where available. Variations from these rates will be identified and substantiated by the *Contractor* during the submission of a CE.

Contractor must programme and resource to take into account specified working windows and completion dates.

Contractor to provide monthly programme updates, cost updates and to attend monthly package progress meetings

Contractor to allow sufficient notice of intent to demobilise so a joint onsite snagging meeting can be carried out after works are completed and before demobilisation.

The Client must review and accept design prior to any work commencing.

Cut-off Channel access improvements:

All Sites:

There is a public right of way at all bridge crossings and some areas of the berm and embankments. The *Contractor* is to assume public access over entire length of *works*. These are to remain open. Appropriate measures are to be erected to manage this.

All Access gates are to be locked when the sites are unattended.

Sites 1-3:

Contractor to remain on Client owned land and to ensure arising's are contained within the Client boundary and out of the watercourse.

Prior to reinstatement and reseeding, *Contractor* will be required to pick and remove all woody debris and rubbish.

Any vegetation clearance would need to be undertaken between 15th October and 15th March.

The berm is uneven and soft in places and likely to become slippery and muddy during wet conditions.

Sites 1 & 2:

At the downstream extent of the *works* area is a government oil pipeline. <u>No plant or machinery to cross or encroach within 15m of this pipeline</u>.

Site 3:

Within the working length is a high pressure gas main. The *Contractor* is to liaise with Cadent (gas division) to obtain all necessary permission/permits and observe necessary measures to cross the pipeline.

Weed raking:

Year 1 - Access to Hockwold siphons is over an unmanned level crossing. Liaison will be required with Network Rail to obtain all necessary permission/permits and observe necessary measures to cross the rail line.

Year 1 & 2 – At the upstream extent of the year 2 *works* area is a government oil pipeline. <u>No plant or machinery to cross or encroach within 15m of this pipeline.</u>

Cut-Off Channel culverts:

Culverts between Denver and West Dereham are subject to high water levels in winter and both culverts and berms may be under water for a *period* of time during the winter. *Contractors* should consider flexibility in the 2 year programme to allow for this.

If diving *Contractors* are to be used *Client* dive contract coordinator signoff will be required and a minimum of two weeks' notice must be considered as part of the *Contractors* programme.

Any vegetation clearance would need to be undertaken between 15th October and 15th March.

Culverts 15, 16, 17 and 22 fall within Wretton SSSI. Assent from Natural England will likely be required for the *works* at these locations. No work to begin until this has been confirmed by Natural England.

Client review and acceptance of design is required prior to any work commencing.

Little Ouse leak repairs:

The length of embankment is adjacent to moorings. Liaison with landowner will be required to maintain their and boat owner access to as much of the bank as is safely possible during the *works*.

In addition to the Anglian Water main on the landward side of the bank/under the road, private water services are present in the berm. *Contractor* to locate, mark and take any necessary control measures for working near

services. The landowner will be able to provide information on approximate locations but it is the responsibility of the *contractor* to confirm and avoid damage to the services.

The works area is adjacent to a public highway. Depending on works method, traffic management/ liaison with the highway authority may be required.

Eastgate Weir se-silting & penstock maintenance:

Project is believed to have a low environmental risk however things to consider are:

- Consideration should be given to the method used to undertake the maintenance required on the bypass penstock due to the confined space of the chamber. Also note that there is a weed screen attached to the inlet pipe to the penstock. This was installed in 2015 and may not appear on all drawings of the weir. See attached photos and diagrams.
- The *contractor* should assume that the silt is contaminated and be aware that there is often reports of pollution incidents in this part of the watercourse from upstream outfalls. Appropriate Personal Protective Equipment should be worn when entering the channel.
- Fisheries have suggested undertaking the work in cooler months to prevent a fish mortality. The *Contractor* should have procedures in place to rescue any trapped fish during the *works* and move them to safety.
- Site is located next to public car park (Ram Meadow) with public footpath located along the fenced boundary of the channel from the car park to The Broadway. Access should remain open for the duration of the works.
- The Broadway accessed from Eastgate Street. This is a busy access route for commercial properties and blockages to this access should be avoided where possible for the duration the *works*.
- Works may require the Contractor to obtain a flood risk activity permit and necessary waste exemptions from the Environment Agency.

Sea Bank East embankment repairs:

IMPORTANT: all design, specification and construction undertaken by the *Principal Contractor* and/or any sub-contractors shall be compliant with the latest Civil Engineering Specification for the Water Industry (CESWI). In the absence of any meaningful specification elements in CESWI then the relevant series of the latest Highways specification shall be used. *Client* review and acceptance of design is required prior to any work commencing.

IMPORTANT: Please refer to the pre-construction Information and environmental file note with regards to access and environmental constraints.

Beach recycling scheme:

The *Contractor* will be permitted to work between appropriate tidal windows maximising use of daylight hours where possible on weekdays (Monday to Friday). A 2 hour stand-down (1 hour either side of high tide) will be required for environmental purposes where applicable.

All works must be *completed* each year by 15th March.

Working times

The *Contractor* will be permitted to work between 7.30am and 6.00pm on weekdays (Monday to Friday) Weekend and Bank Holiday working on *site*, and working outside of the hours stated above shall be with the written approval of the *Client*. With the exception of emergency response.

5. Requirements for the programme

The *Contractor* submits his programme with the *Contractor*'s Offer for acceptance. The *Contractor* shows on each programme which he submits 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) Period required for mobilisation/ planning & post contract award
- (b) starting date
- (c) Each of the activities listed within the Price List
- (d) Any key third party interfaces: lead in *period* for materials and sub-contractors; time required to obtain consents/waste permits; stated constraints; *Contractor's* risks.
- (e) Completion date

The Contractor shall be required to submit on a weekly basis (or as otherwise agreed at the precommencement meeting) daily site records.

The programme shall be updated and submitted to the *Client* a monthly basis to support each payment application to confirm work complete to that assessment date. Any Early Warning Notice or Compensation Event that impacts on the *completion* date shall be supported by an updated programme. Un-scoped or additional projects shall be added to the package upon acceptance of the relevant CE's and revised programmes.

6. Services and other things provided by the Client

Item	Date by which it will be
	provided
Electricity where is exists on site	Commencement
Utilities information (Contractor expected to verify, CAT Scan, mark and manage	Pre-commencement
risk as appropriate)	

7. Site Information

Site information is information which describes the site and its surroundings and is in the documents called preconstruction information (PCI). A PCI will be provided for each scoped project within this contract, please note that the PCI's will not be issued at tender stage, they will be available following contract award for the scoped projects.

PCI's will follow for un-scoped projects as they are introduced into the package.

Cut-off Channel access improvements:

Cut Off Channel general site Information for all sites below:

There are some official and permissive public rights of way (footpaths) on the berm within the working lengths. All bridge crossings carry a public right of way. However unofficial usage does exist, particularly near the slip repair locations on *Site* 1. For the purposes of this work it should be assumed that there is public access to the entire *works*. Relevant public interface should be included. Access to the *site* is from public highway bridges or private farm tracks.

Areas are available for small welfare units at each bridge.

Utility searches are being resubmitted for more up to date returns. However previous searches have indicated that there are underground services on *site* unlikely to affect most of the *works* See map 2 (1 of 12 & 4 to 12 of 12) with the exception the oil pipeline and gas pipeline as detailed in constraints section above. However the *Contractor* will be required to carry out a CAT scan to locate any underground services in the working area, clearly mark the locations on *site* and liaise with the service provider as required.

A walk over *site* survey confirmed there are overhead services within the *sites* and the machine access routes See map 2 (1 of 12 & 4 to 12 of 12)

Access routes have been indicated on the associated site maps.

Access is liable to become muddy and slippery with continued use in wet conditions.

<u>Year 1 - Site 1 - Upstream of oil pipeline to Tollgate Weir, left bank - Channel side, berm and embankment clearance / reprofiling.</u>

Access along the berm is restricted by the slip, repair of which is part of these *works*. Access to the downstream extent will rely on this repair having been completed first.

The embankment and berm are liable to become muddy and slippery during wet conditions.

There is a Government oil pipeline that crosses under the Cut Off Channel between Eriswell Weir and Middle Weir as shown on map 2 (10 of 12). This must not be crossed by any plant. *Works* will stop 15m short of the pipeline and access will then be required from the other end.

There are 4 sets of electric overhead cable that cross the working length. See map 2 (10 & 11 of 12)

Known underground services are indicated on map 2 (10 & 11 of 12). These are 1no electric and AWA water main.

The front berm is low for lengths upstream of Middle weir. This is liable to flooding in the rare times of high flow in the Cut Off Channel.

Access is from Tolgate Road Bridge, A1065 via *Client* gates. Access gates are locked with *Client* no. 5 or 6 padlocks. Gates must be closed and locked at all times.

<u>Year 1 or 2 (TBC) - Site 2 -</u> Upstream of oil pipeline to Tollgate Weir, right bank <u>— Channel side, berm and embankment clearance / reprofiling.</u>

There is a Government Oil pipeline that crosses under the Cut Off Channel between Eriswell Weir and Middle Weir as shown on map 2 (10 of 12). This must not be crossed by any plant. *Works* will stop 15m short of the pipeline and access will then be required from the other end.

There are 4 sets of electric overhead cable that cross the working length. See map 2 (10 & 11 of 12)

Known underground services are indicated on map 2 (10 & 11 of 12). These are 1no electric and AWA water main along with *Client* outfall structure.

The berm has been widened and levelled along the majority of its length however it is liable to become muddy and slippery in wet conditions.

Access is from Tolgate Road Bridge, A1065 via *Client* gates. Access gates are locked with *Client* no. 5 or 6 padlocks. Gates must be closed and locked at all times.

<u>Year 1 - Site 3 - Thornham Road Bridge to Wissey siphons left bank - Channel side and berm clearance / reprofiling.</u>

Within the working length is a high pressure gas main, approximate location indicated on map 2 (1 of 12). The *Contractor* is to liaise with Cadent Gas to obtain all necessary permission/permits and observe necessary measures to cross the pipeline.

2 No electric overhead cable that cross the working length and 1 No parallel to the rear of the spoil bank. See map 2 (1 of 12)

1 No Environment Agency under channel culvert

Known underground services are indicated on map 2 (1of 12). These are 1no British Telecom cable in road along with *Client* outfall on the opposite bank.

The berm has been widened and levelled along the majority of its length however it is liable to become muddy and slippery in wet conditions.

Access is from Thornham Road via *Client* gates. Access gates are locked with *Client* no. 5 or 6 padlocks. Gates must be closed and locked at all times.

Yr1 weed rake - Hockwold Siphons

to White Fen Bridge

The berm has been widened and levelled along the majority of its length however it is liable to become muddy and slippery in wet conditions.

Plant access can be gained from Suffolk Bridge and White Fen Bridge.

To get to Hockwold Siphons will require crossing an unmanned level crossing. Network Rail guidance to be adhered to.

Yr1 weed rake - Oil pipeline (Eriswell)

to Lark Head sluice

There is a Government Oil pipeline that crosses under the Cut Off Channel between Eriswell Weir and Middle Weir as shown on Map 2. This must not be crossed by any plant. *Works* will stop 15m short of the pipeline and access will then be required from the other end.

The berm has been widened and levelled along the majority of its length however it is liable to become muddy and slippery in wet conditions.

Plant access can be gained from the A1065 Brandon Road, Depot Road, and the A110 Bury St Edmunds Road. Access cannot be gained from the A11. The *Contractor* will be required to include two extra road moves for plant to negotiate the dual carriageway and Tollgate Bridge.

Yr2 weed rake - White Fen Bridge

to oil pipeline (Eriswell)

There is a Government oil pipeline that crosses under the Cut Off Channel between Eriswell Weir and Middle Weir as shown on Map 2. This must not be crossed by any plant. *Works* will stop 15m short of the pipeline and access will then be required from the other end.

The berm has been widened and levelled along the majority of its length however it is liable to become muddy and slippery in wet conditions.

The front berm is low for short lengths at Lakenheath and upstream of Eriswell weir. This is liable to flooding in the rare times of high flow in the Cut Off Channel.

Plant access can be gained from White Fen Bridge, Sedge Fen Road Bridge, Undley Road Bridge and Eriswell Road Bridge.

Cut-Off Channel culverts

There are some official and permissive public rights of way (footpaths) on the berm within the working lengths. All bridge crossings carry a public right of way. However unofficial usage does exist. For the purposes of this work it should be assumed that there is public access to the entire *works*. Relevant public interface should be included. Access to the *site* is from public highway bridges or private farm tracks.

A walk over site survey confirmed there are overhead services within the machine access routes.

The *Client* owns berm of Cut off Channel bank with the exception of a few locations, of which the *Contractor* will be informed.

Some of the banks are leased / tenanted by fishing clubs and have fishing rights. The *Client* is to inform tenants and fishing clubs in advance of *works*.

Access is possible via berm of embankment from nearest road bridge. Access gates are locked with *Client* no. 5 or 6 padlocks. Gates must be closed and locked at all times.

Culverts 15, 16, 17 and 22 fall within Wretton SSSI. Assent will likely be required for the *works* at these locations. No work to begin until this has been confirmed by Natural England.

Ground conditions will be soft on berms, 4x4 vehicles are recommended.

Little Ouse leak repairs

Address: Little Ouse Moorings, Brandon Creek

Nearest postcode:

NGR:

Address:

The works are is shown in Map L1. The exact length to be piled will be determined by the *Client* over the summer by inspecting for leaks in dry weather conditions, but will be within or directly adjacent to the indicated length.

The embankment is privately owned and well maintained.

The length of embankment is adjacent to moorings. Liaison with landowner will be required to maintain his and boat owner's access to as much of the berm as is safely possible during the *works*.

An Anglian Water main is present in the vicinity, please refer to Map L2. In addition to the Anglian Water main on the landward side of the bank/under the road, private water services are present in the berm. *Contractor* to locate, mark and take any necessary control measures for working near services. The landowner will be able to provide information on approximate locations but it is the responsibility of the *Contractor* to confirm and avoid damage to the services.

The embankment crest is a public right of way. Relevant public interface should be included.

At the back toe of the embankment is a single lane infrequently used public highway. Relevant traffic management will need to be considered by the *Contractor*.

Eastgate Weir de-silting & penstock maintenance, Bury St Edmunds

Please reference to site information EGW2020.1 for further information.

Nearest postcode:
The main purpose of Eastgate Weir is to maintain a head of water upstream to support the amenity value of a locally important public space, Abbey Gardens. During the <i>works</i> the upstream retention lever must be maintained at all times.
Eastgate Weir is located on the River Lark to the north of Eastgate Street in Bury St Edmunds. The <i>site</i> can be accessed from junction 43 of the A14 to the north of Bury St Edmunds. Heading south on the A143 the <i>site</i> is close to the football ground.
Eastgate Weir is a fixed broad-crested weir across the full width of the channel (approximately 15 m). Residual flow is controlled by a penstock housed in a chamber on the left bank to allow for draining of the impounded water. There is an access ramp / slipway upstream on the left bank (approximately 20 m). The concrete lines channel extends approximately 90 m upstream of the weir.
Access to the weir is via a busy public car park of Ram Meadow through a designated gated access at the fa side of the car This site is on public land owned by West Suffolk Borough Council and surrounded by commercial and residential properties. Access is through the coach park where there is no heigh restriction. Liaison with the Council has been undertaken to ensure access to site and cordoning off parking spaces along the channel for the work/welfare compound has been agreed in principle.

Bury St Edmunds

Over time the concrete channel upstream of Eastgate Weir becomes silted with the vertical weir crest approx. Im above the bed level of the upstream channel acting as a silt trap. Due to the location of the weir all spoil will need to be removed from *site* to a suitable disposal location with the material having been tested. The silt is expected to contain a certain amount of rubbish and debris which will also need to be removed. A silt trap will be required to stop suspended solids entering the watercourse downstream.

The Penstock chamber is approximately 800 mm sq. x 2000 mm deep with a 500mm diameter inlet and outlet pipe and a small penstock. At the time of last detail asset inspection (Summer 2019) the penstock was unable to be operated. The *Client* has asked the *Contractor* to cost for 3 options and after consultation with interested parties the *Client* will select the preferred option to be undertaken.

Please reference to

There is a public footpath along the fenced boundary to the channel to The Boardway. The Contractor is required to erect suitable signage control measures whilst *works* are being undertaken.

Service searches have indicated overhead BT Openreach cables crossing Cotton Lane on approach to Ram Meadow car park. There are 2 privately owned surface water outfalls upstream of the weir on the right and left bank at respectively. There are known services at the *site* located under the concrete channel and on the downstream face of Eastgate Bridge. The *Contractor* will be required to liaise with National Grid (gas), Anglian Water and EDF Energy to confirm the locations. The *Contractor* should undertake a CAT scan to locate and mark the location of any electric cable prior to breaking ground where required to confirm that there are no other underground services within the working area.

The flow and river levels in the channel are susceptible to change depending on weather conditions at time of works. Any restrictions to flow within the channel during the works should be readily removable to response to changing weather conditions on request from the *Client*.

Sea Bank East embankment repairs

The embankment stretches between grid reference

Beach recycling scheme

All works must be *completed* each year by 15th March.

Geotechnical information – N/A

Works in confined spaces – N/A

Access – As described in the Works Information plus see a

Access – As described in the Works Information plus see attached maps

Proposed subcontractors			
	Name and address of proposed subcontractor	Nature and extent of work	
1.	Form of Contract:		

Form of Contract:	
Form of Contract:	
Form of Contract:	
	Form of Contract: